

PERCEPTIONS OF THE WELL-BEING AND SPORT  
PERFORMANCE RELATIONSHIP

HANNAH CLOWES

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## **Abstract**

This thesis extended knowledge on the well-being and sport performance relationship through the systematic investigation of the existent quantitative literature, and examination of elite athletes' and sports practitioners' perceptions and narratives of their experiences of the relationship. Following a systematic review, a qualitative research design was applied predominantly throughout the thesis, with employment of mixed methods in parts to supplement the data. Data were collected via one-off semi-structured interviews, longitudinal repeated semi-structured interviews, and structured diary questionnaires. Participants were UK-based elite athletes and sports practitioners from a multitude of different sports. Data were analysed systematically, thematically and narratively. Study one explored the extant quantitative literature examining a numerical relationship between well-being and sport performance. Results found an overall dearth of quantitative studies offering mixed support for a relationship due to inconclusive, varied evidence, making a consensus statement regarding the quantitative relationship between well-being and sport performance difficult. Study two investigated elite athletes' narratives of their experiences of the well-being – performance relationship. Results found athletes' narratives illustrated perceptions of a complex relationship revealed by the emergence of multiple types of interactions within their experiences. Life balance and the management of demands, and achieving an appropriate mind-set emerged as fundamental threads within the narrative, with the support network and individuality also highlighted as significant to the relationship. Study three investigated sports practitioners' narratives of their athlete clients' experiences of the well-being – performance relationship. Results found perceptions of an intricate and non-direct relationship, where well-being was considered to influence the probability of, but not determine, athletic performance. Practitioners emphasised athletes' capacity to cope with their life demands and challenges, along with the sport environment and culture, and individuality as key facets within the relationship. Finally, study four examined elite athletes' narratives of their experiences of the well-being – performance relationship longitudinally. Results found the narrative remained predominantly consistent over time, with some minor variation in the stability of the narrative told because of fluctuations in the particular nature of experiences. Responding to certain environmental demands and features inherent in the type of sport were significant to the relationship. Overall the results of the current thesis have implications for how support personnel may educate and prepare elite athletes better to navigate and manage this relationship, offering a proposed integrated framework representing the narrative overall.

Recommendations for improving the support provision of elite athletes are made, along with proposed areas to target for development within a multifaceted well-being monitoring tool.

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# **Chapter One**

## **Introduction**

## 1.1 Introduction

A common conception currently held by the majority is that well-being, or how a person is feeling and functioning, is important, and many appear to believe that well-being is useful for and influences sport performance. As it is well documented that functioning well psychologically and being both adaptable and in control emotionally are essential for performing optimally under pressure (Lundqvist, 2011; Lundqvist & Kenttä, 2010), it could be suggested that an athlete's well-being may be significant to the way they perform. The inception, and simply the existence, of the Performance Lifestyle role is also a clear indicator that well-being is considered important for high-level sport performance. Anecdotally there is acknowledgement that a psychologically well-functioning and flourishing athlete is assumed to train and compete better than one who is struggling respectively (Ashfield, Harrison & Giles, 2017). Well-being is considered to be a contributor to, and not just an outcome of, successful performance because it can nurture the development of a variety of desirable personal resources, behaviours, and interpersonal skills associated with positive results, such as broadened thinking, optimism and effective problem solving (Brady & Grenville-Cleave, 2017; Lyubomirsky, King & Diener, 2005). Elite athletes are required and expected to perform at the highest level displaying remarkable physical qualities above and beyond what is perceived as natural to the average person. Despite appearing somewhat extraordinary, elite athletes still remain to be human beings, facing the same day-to-day challenges, issues and emotions as *normal* people. With added demands inherent in high performance environments, and significant pressures from both external sources and their own internal expectations, elite athletes must produce performances in competition when it matters, regardless of any expected or unexpected events positively and negatively influencing their well-being. It could be argued that elite athletes are potentially confronted with more stresses that could compromise their well-being than the regular person, such as: combining education or employment with tough training schedules to create or maintain a career for after sport; picking up serious or re-occurring injuries; having to sacrifice other areas of their life; and spending a lot of time away from family and friends because of training or even relocating, to name a few. Concentrating on one's personal performance and striving for success in highly demanding competitive scenarios is difficult in itself, without consideration for the stresses associated with performing, or any other worries the athlete has within or away from the sport environment that may be impacting their well-being (Bona, 2014). With this in mind, if well-being is related to performance, then elite athletes may face even more of a challenge when performing as their well-being may have the potential to be impacted by a wider range of factors. People seem to

make quite a simple assumption about the interrelation of well-being and sport performance. Is this idea of a connection necessarily the case, or could there be more to the relationship?

Well-being is a multifaceted and complex construct that may be individually defined and interpreted according to personally selected relevant and meaningful criteria. The intricacies of well-being have been deliberated over for decades by many researchers, and despite the prevalence of the term in today's vocabulary there remains no universal definition (Dodge et al., 2012). Well-being is commonly interchanged with terms such as *happiness* and *quality of life* and comprises the combination of the presence of positive affect/emotions, the absence of negative affect/emotions, life satisfaction, fulfillment, and positive psychological functioning (Bradburn, 1969; Diener, 1996; Diener, Suh & Oishi, 1997; Ryan & Deci, 2001; Ryff, 1989). Despite the dominance of subjective and psychological well-being conceptualisations at the foundation of our understanding of well-being (Diener, 1984; Ryff, 1989), a multitude of others have emerged, such as eudaimonic well-being (Ryan & Deci, 2001), emotional well-being, physical well-being, material well-being, developmental well-being, rights/civic well-being (Schalock & Verdugo, 2002), and safety/security (Cummins, 1996). Despite earlier research approaching well-being in terms of its individual parts, the majority of researchers now believe well-being to be holistic and multi-dimensional (e.g. Diener, 2009; Ryan & Deci, 2001).

Well-being in the field of general psychology has been studied extensively (e.g. Eger & Maridal, 2015; Ryan & Deci, 2001), and research interest regarding well-being (in some capacity) in the sport domain has grown more recently and is now well represented in the literature (e.g. Lundqvist, 2011). Across the literature, sport has emerged as both favourable and detrimental for athletes' well-being. Sport has been suggested to promote well-being through the provision of, for example: meaningful experiences by engaging in the sport culture, and high support levels (organisationally and from peers sharing common experiences); and the promotion and development of: protective factors such as mental strength, self-confidence, and improved health knowledge, as well as opportunities for personal growth (Agnew, Henderson and Woods, 2017). Athletes have expressed their quality of life as good, almost optimal, and superior to that of non-athletes (Brady & Shambrook, 2003; Morris et al., 1982; Tanimaru & Dos Santos, 2016).

Despite the reported benefits of sport for well-being, athletes have also indicated low quality of life, specifically in higher level or higher profile sport (Wrisberg, 1996). Sport has been considered damaging for well-being because it can prevent life balance, it can cause injury, feelings of isolation, burnout, pressure, and conflict amongst athletes because of team

selections and varied work ethics, and it can diminish confidence when poor performances happen (Agnew, Henderson and Woods, 2017). Elite athletes are often exposed to certain determining factors, such as managing performance difficulties or failure/loss, career transitions, overtraining, intense public media scrutiny, body image concerns (particularly in aesthetic and female sports) and organisational factors such as the coaching environment and coach expectation (Rice et al., 2016). These factors often evoke issues in areas of mental health such as anger and aggression, anxiety, eating disorders and body image, elite athlete vulnerability to mental illness, substance abuse, stress, coping and well-being (Rice et al., 2016). The research generally illustrates recreational sport involvement as yielding higher well-being, and the more elite, competitive-level sport producing lower well-being (Chatsizarantis & Hagger, 2007).

Well-being has been widely examined across research within the sport and exercise domain (e.g. Scully et al., 1998; Fox, 1999; Penedo & Dahn, 2005; Conte et al., 2018). Despite this fact, investigation of well-being in a competitive sport context is a relatively new area of study that has developed over the last two decades, as Lundqvist (2011) illustrated in her review. The review highlighted the preference of the literature to employ well-being as the studies' dependent variable and illuminated that exploration of well-being as an independent variable for sports performance is lacking. It has been suggested that positive emotions and well-being should not only be considered as consequences of performance or post-performance states but may also be key for generating accomplishment (Brady & Grenville-Cleave, 2017). The majority of studies in Lundqvist's review also implemented quantitative inquiry to explore general insights into well-being under themes such as need satisfaction and self-determination.

Researchers who have explored the well-being of competitive athletes in depth have predominantly focused on: athlete's general well-being experiences within the sport context, theoretical understanding of what well-being is for athletes, and the impact sport participation has on well-being (e.g. Brady & Shambrook, 2003; Lundqvist & Sandin, 2014; Mayoh & Jones, 2015). Research has shown discrepancies between methods of reporting, where athletes indicated frequent and diverse challenges, sacrifice and lifestyle demands that may be interpreted objectively as suggestive of low quality of life, but their subjective accounts were inherently positive (Brady & Shambrook, 2003). Research has also emphasised that the well-being of athletes is affected by both sport and non-sport factors, with acknowledgement for non-sport life areas as important components of in-competition sport performance (Dunn, 2014; Lundqvist & Sandin, 2014). Awareness that athletes function within multiple environments and that these settings have a collection of elements contributing within them,

alerts us to be mindful of the potential consequences of, or the interactions between, both environments for performance, emphasising the significance of a holistic view of this area. The research in this area highlights a considerable number of factors that either influence athletes' well-being (e.g. lack of relationships/friendships outside the sport milieu, sacrifices in other life areas) or are required for athletes to achieve well-being (e.g. realistic personal sport performance standards, happiness). Research exploring the well-being experiences of athletes from different perspectives has been limited, with one study employing interviews with key individuals associated with national sporting organisations and player associations (Dunn, 2014).

Despite there being a developing interest and a growth of competitive sport research incorporating well-being to some degree (e.g. Lundqvist, 2011), at present there is limited research that has explored well-being alongside sport performance. The literature addressing the relationship between well-being and sport performance to date is scarce and is restricted to quantitative approaches (e.g. Kavaliauskas, 2010; Masters, 2009; May et al., 1985; Noon et al., 2015; Von Guenther & Hammermeister, 2007). Qualitative study has not focused explicitly on the well-being – performance relationship and so the evidence comes from studies focused on broader or other topics. Of the extant qualitative research, it appears that studies have provided findings consistent with elements of well-being and how these help or hinder sport performance, as opposed to explicitly examining the relationship between the two constructs (e.g. Douglas & Carless, 2006; Gould, Guinan, Greenleaf, Medbery & Peterson, 1999; Greenleaf, Gould & Dieffenbach, 2001; Price, Morrison & Arnold, 2010). This research makes inferences about the relationship by suggesting some intermediary variables that are considered to contribute to performance fluctuations indirectly through well-being including: relationships and social support in and out of the sport environment (e.g. Douglas & Carless, 2006; Gould et al., 1999; Greenleaf et al., 2001; Price et al., 2010), and life balance (e.g. Pink et al., 2015; Price et al., 2010).

The relationship between well-being and sport performance particularly warrants research attention as coaches, sport psychologists, support staff, and athletes themselves are inherently interested in understanding and enhancing sport performance. Although there is a common suggestion that well-being can be influential for performance, the details of this relationship have yet to be specifically examined. As there is a dearth of investigation focusing on the explicit exploration of the relationship between well-being and sport performance in general, and a lack of research approaching this beyond quantitative methods, there is much still to learn concerning this association. At present we do not understand how people narrate

this relationship, what it means to them, and how they story it to make sense of what goes on within it. If we can understand more about this well-being – performance interaction, and what it is about athlete’s well-being experiences that can (if at all) facilitate or inhibit their ability to perform to their best at the right moment, we are better positioned to assist them, and practitioners can be more informed when working with them to navigate these instances.

In the current literature, most of the research articles examining the experiences of well-being within the sport domain or aspects of well-being that may influence performance are from the perspective of athletes themselves (e.g. Douglas & Carless, 2006). The purpose of this thesis is to examine narratives of the relationship between well-being and sport performance from the perspective of athletes and practitioners experiencing these interactions on a regular basis. Athletes’ perceptions and stories of the well-being – performance relationship will likely add substantially to knowledge, given they are the ones experiencing the interaction personally. Although understanding athletes’ views on their own experiences is key to obtain knowledge and information of how they can be best supported, there may be a number of other significant individuals who have roles in providing well-being support for elite athletes. These individuals may include Sport Psychologists (SPs), Performance Lifestyle Advisors (PLs), coaches, personal members of athletes support networks, and other sport science support personnel. Acquiring knowledge regarding well-being and sport performance from multiple sources may be beneficial as these individuals are likely to have interacted with athletes in different contexts, approached their roles in different ways, and been presented with a range of issues. Examining the perspectives of sports practitioners, specifically SPs and PLs, may also be advantageous as a focus on well-being support is often within the remit of their employment roles and is something they are likely to be accustomed with and trained in, they will likely have worked with many different types of athletes and assisted them through relevant experiences, and can therefore offer a broader outlook on the relationship. It is possible that these practitioners will have formed their own understanding, interpretations, and personal perceptions of the relationship from the positive and negative occurrences of their athlete clients, therefore examining these individuals will increase knowledge.

Methodologically, the well-being – performance relationship literature is lacking in qualitative study. The literature above has predominantly focused on whether a relationship exists between different subjective measures of well-being and a range of subjective or objective performance measures. There is however a lack of knowledge about the context of these experiences, the perceptions of, and the factors pertaining to this relationship. Examination of well-being with sport performance with closed, pre-determined questionnaires



is limiting, and this relationship is worthy of richer exploration and more in-depth accounts beyond those that have been conducted in previous research. The complexity of this construct in terms of the significant number of markers considered as potential components of, and contributors to, well-being, lends itself to qualitative approaches and needs methods to account for its intricacies. Well-being is not a straight or simple concept, with different meanings for each individual and combines both feelings and functioning (Brady & Grenville-Cleave, 2017). Athlete and practitioner interviews within this thesis will explore the relationship from a broader and more detailed lens to capture the intricate and dynamic complexities of individual accounts. This thesis will aim to extend the qualitative approaches used to date to that of employing methodologies to understand stories of well-being relative to performance, with consideration for athlete and practitioner generated descriptions. Cross-sectional data can offer snapshots of meaningful information, especially when qualitative in nature, however longitudinal research, such as tracking athletes' stories of their experiences of the relationship over time, may provide a fuller understanding because there may be fluctuations and even increased clarity over time. Gaining advances in approaches to understanding this relationship may offer useful information to help in the support of well-being for athletes, which is an area becoming seen as increasingly important for athletes to perform well. Greater insight into what it is like to live these types of experiences may highlight areas of interest to target to enable improvements in how these are addressed with athletes in the future.

### **1.2 Purposes of the PhD**

Considering the limitations of previous literature highlighted above, to add to the existing knowledge of the relationship between well-being and elite sport performance and help to achieve the overall thesis purpose of examining perceptions of this relationship, the aims of the current research were to:

- (a) Systematically examining the previous quantitative research regarding the relationship between well-being and sport performance for a quantifiable indication of the interaction (Study 1).
- (b) Examining elite athletes' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their experiences of the interaction, and factors considered influential within it (Study 2).
- (c) Examining sport practitioners' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their athlete clients' experiences of the interaction, and factors considered influential within it (Study 3).

- (d) Tracking elite athletes' narratives about the relationship between well-being and sport performance over time, identifying development of these narratives longitudinally, and highlighting factors considered influential within the interaction (Study 4).
- (e) Expanding available knowledge on well-being and sport performance in a competitive sport context (Studies 1, 2, 3 & 4)

### **1.3 Structure of Thesis**

Chapter 1 has offered an introduction to the study area and an explanation of reasons why further investigation of the topic is warranted. Following this introduction, Chapter 2 provides an overview of theoretical perspectives, theories and models, alongside a review of relevant sections of well-being in sport literature, and existing well-being and sport performance research. This chapter highlights unanswered questions in the literature and aids the formation of a rationale for the aims and studies to follow. Chapter 3 includes Study 1, a systematic review of the relationship between well-being and sport performance in competitive athletes, which presents the quantitative research on the topic area and contributes to aim 1 of the thesis. Chapter 4 contains Study 2, an examination of elite athletes' perceptions and experiences of the relationship between well-being and sport performance using a thematic narrative analysis and contributing to aim 2 of the thesis. The purpose of Study 2 is to (a) identify how elite athletes define both well-being and performance, and (b) understand how they story their experiences of the relationship between well-being and sport performance in order to (c) appreciate what the perceived significant contributors are within this relationship. This chapter incorporates a discussion of the methodology used throughout the remainder of the thesis in studies 2-4, including the research design, data collection and analysis techniques and procedures. Chapter 5 contains Study 3, an examination of practitioners' perceptions and experiences of the relationship between well-being and sport performance using a thematic narrative analysis and contributing to aim 3 of the thesis. The purpose of Study 3 is to (a) identify how practitioners define both well-being and performance, and (b) understand how they story their athlete clients' experiences of the relationship between well-being and sport performance in order to (c) appreciate what the perceived significant contributors are within this relationship. Chapter 6 outlines Study 4, a longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance, using a mixed methods investigation and contributing to aim 4 of the thesis. The purpose of Study 4 is to (1) track athletes' well-being and training quality longitudinally to (2) examine their narratives of the relationship at multiple time points. Finally, Chapter 7 provides a general discussion of the overall thesis including a summary of key results, strengths and considerations, potential

applied applications and practical implications, and future research directions within the area of well-being and sport performance. Generally, the thesis findings may provide an insight into the perceived nature of the well-being – performance relationship, the processes involved when navigating this relationship, and key characteristics and contributors within the interaction. The next chapter will provide an overview of the literature around the topic.

# **Chapter Two**

## Literature Review

## 2 Literature Review

### 2.1 Theoretical Perspectives

The purpose of this chapter is to provide a conceptual background and review the literature examining the relationship between well-being and sport performance. First, within this chapter I will briefly address the origins of well-being in terms of definition, including hedonic and eudaimonic viewpoints, and the transition of these philosophies into their respective subjective and psychological (and social) well-being definitions. Second, other conceptualisations of well-being will be presented. Third, a definition of well-being will be offered in terms of how it is to be interpreted throughout this thesis. Fourth, the review will then explore existing theories and models of well-being, and quantitative measures of well-being, including popular measures used in sport psychology research. Fifth, the chapter will review the well-being research within sport, including that of well-being within competitive athletes, general well-being experiences in sport, and the well-being derived from sport participation literature will also provide some general context. Finally, previous research examining well-being and sport performance will then be discussed, before addressing the overall aim of this chapter, to identify gaps in the literature and highlight the focus of the current research.

**2.1.1 Defining Well-being: multiple viewpoints.** Well-being is a multifaceted and complex construct that has been deliberated over for many decades. Despite the popularity of the term in today's vocabulary, there is currently no consensus around a universal definition of well-being (Dodge et al., 2012). Well-being research is continuously expanding and an increased interest from researchers and public policy makers is likely following an attentional shift. This shift is seen to be that of a tendency to focus on negative dimensions through a damage repair approach of human experience, and towards more prevention and growth-based principles of positive psychology (Seligman & Csikszentmihalyi, 2000; Ryan & Deci, 2001). Positive psychology is an umbrella term for the study of positive emotions, positive character traits, and positive facilitating institutions (Seligman, Steen, Park & Peterson, 2005). This relatively new scientific area of psychology pays close attention to the study of human strengths and well-being (Brady & Grenville-Cleave, 2017). The field focuses on the promotion, building and nurturing of positive qualities for personal growth and optimal human functioning, as opposed to solely fixing weaknesses, pathology and mental disorders (Seligman et al., 2005). Well-being has been increasingly viewed as more than the absence of mental disorder, towards the presence of positive psychological characteristics and resources (Diener,

1984; Hefferon & Boniwell, 2011; Ryan & Deci, 2001; Ryff, 1989). The origins of the concept of well-being will first be considered to provide a conceptual baseline for this thesis.

**2.1.2 Hedonic & Eudaimonic Philosophies.** Historically, two distinct traditions emerged and have been honoured to provide the foundation for today's understanding of the concept of well-being: the hedonic philosophy and the eudaimonic philosophy (Ryan & Deci, 2001). In the fourth century B.C. Aristippus, a Greek philosopher argued for the hedonic view: that the goal of life was to achieve the maximum amount of pleasure, enjoyment, and comfort, regardless of the source (Ryan & Deci, 2001; Huta & Ryan, 2010). Contrastingly, Aristotle, another Greek philosopher, considered hedonic happiness and the pursuit of pleasure as vulgar principles. Instead Aristotle contended that well-being is achieved through eudaimonia: pursuing the application and development of the best version of oneself, in line with one's deeper values, and fulfilling one's true potential or 'daimon' (Rogers, 1961; Ryan & Deci, 2001; Huta & Ryan, 2010). In fact, in this pursuit of self-fulfillment, those hedonic tenets of happiness and feeling good are often not actually experienced in the moment, rather gratification is delayed whilst unpleasant experiences are endured (Ryan, Huta, & Deci, 2008). These philosophies were intended to realise what constitutes the *good life* (Rogers, 1961). Emphasis is upon the definition of *good*, as both traditions offer a different interpretation of what is being represented. The hedonic and eudaimonic philosophies have evolved over the last century into two of the main conceptualisations of well-being: Subjective well-being (SWB) and Psychological well-being (PWB) respectively (Diener, 1984; Ryff, 1989). These conceptualisations will now be discussed, along with the recognition of some of the other ways in which well-being has been characterised.

**2.1.3 Subjective well-being (SWB).** Subjective well-being refers to the thoughts and feelings a person has about their life, along with their conclusions and interpretations of their existence (Diener, 2000). Subjective well-being involves the relative cognitive evaluations people make of their lives, in terms of global (and domain specific) assessments of life satisfaction, or quality of life (Shin & Johnson, 1978; Diener, 1996). These appraisals are established according to personally selected criteria. Quality of life has been defined as:

*“An individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment.”* – World Health Organization (WHO; Saxena & Orley, 1997, p.263)

Although quality of life is a term often used interchangeably with the concept of well-being, it offers only a narrow perspective and appears to be more of a dimension of well-being as opposed to an all-encompassing definition (Dodge et al., 2012). At the emotional level, other elements indicative of SWB include affective evaluations of happiness, or the presence of pleasant affect and the relative absence of unpleasant affect due to reactions to life events people are involved in, in their daily lives (Bradburn, 1969; Diener, 1996; Diener, Suh & Oishi, 1997; Ryan & Deci, 2001). Affect indicates pleasant and unpleasant moods and emotions, and positive and negative affect are to be viewed as distinct dimensions, as opposed to being on opposite ends of the same spectrum (Bradburn, 1969; Diener & Suh, 1997). These features indicate that SWB is a combination of cognition and affect, however a key assumption of this theory is that these two dimensions may not equate as it is possible for high life satisfaction and low positive emotions to occur at the same time (Diener & Suh, 1997). Researchers contend that SWB is equated with a person's internal experience, and the individual person, is fundamentally asserted as the best judge to evaluate whether they are truly feeling well and satisfied, based on their values, goals and life circumstances (Diener et al., 1997; Frey & Stutzer, 2002; Layard, 2005). Happiness is a subjective construct. A person's level of happiness depends on the extent of their beliefs about how happy they are (Wright & Cropanzano, 2004). The hedonic viewpoint represented by SWB is characterised in terms of dynamic, short-term fluctuations in emotional states (Huta & Ryan, 2010). The premise of the SWB perspective is largely atheoretical with a lack of strong conceptual clarity, as the concept is left to the interpretation and responsibility of the individual (Ryff & Keyes, 1995). Alternative perspectives sought to address the limitations of SWB. In contrast, psychological well-being assumes a more theory-driven approach to wellbeing, with the argument that a sole focus on life satisfaction and affect neglects important aspects of positive psychological functioning (Ryff, 1989).

**2.1.4 Psychological well-being (PWB) & Social well-being (SocWB).** Psychological well-being is about doing or living well and relates to active engagement in a number of existential challenges to promote progress towards human potential (Ryff, 1989). PWB, as a multidimensional approach, encompasses six components for humans to apply themselves to, as they strive towards positive functioning, through growth and development when encountering challenges during life (Ryff, 1989; Ryff & Keyes, 1995). The six key elements of human actualisation are: autonomy (having the strength to follow personal convictions even if they go against conventional wisdom), personal growth (feeling that personal talents and potential are being realised over time), self-acceptance (the capacity to appreciate and accept

one's strengths and weaknesses), life purpose (having goals and objectives that give life meaning and direction), environmental mastery (ability to manage the demands of everyday life), and positive relatedness to others (having close, valued connections with significant others; Ryff, 1989; Ryff & Keyes, 1995; Ryff, Singer & Love, 2004).

PWB resonates closely with several key qualities associated with engagement in sport and may be a valuable consideration when uncovering the heart of why sport can mean so much to people, such as feeling a sense of athletic growth (Brady & Grenville-Cleave, 2017). Keyes (1998) has also proposed the inclusion of social aspects as complementary to PWB, as perceived flourishing in one's private and social life is deemed relevant to positive psychological functioning. Social WB takes into consideration the quality of one's relationships with other people, the neighbourhood, and the community (Keyes & Shapiro, 2004). Social well-being is constructed from a number of dimensions (Keyes, 1998): social acceptance (positive attitude toward and acknowledgement of others), social actualisation (positive attitude toward the world and the society's potential and development), social contribution (positive view that one's own contribution to society is valuable and valued), social coherence (perception that the social world is interesting, logical and predictable) and social integration (feeling of social belonging and support). Being able to thrive in life is dependent on people perceiving themselves as competently functioning in these personal and social areas (Huppert, 2009). The eudaimonic viewpoint represented by PWB is characterized by both brief and more stable behaviours.

**2.1.5 Other conceptualisations of well-being.** While SWB, PWB and SocWB have been the main conceptualisations of well-being within the research, many others have been proposed. Within their text on positive psychology, Brady and Grenville-Cleave (2017) created a list of the range of domains of well-being that have been used in psychology along with the suggested indicators for that type of well-being (table 2.1). Their summary of concepts highlights that well-being can be approached from many different angles, meaning it can be challenging for those researchers exploring it, for athletes experiencing it, and for practitioners attempting to evaluate and approach it. Whilst the list is not exhaustive, already a significant number of markers are considered as potential components of well-being.

Despite earlier research approaching well-being in terms of its individual parts, the majority of researchers now believe well-being to be holistic and multi-dimensional (e.g. Diener, 2009; Ryan & Deci, 2001). According to Seligman's (2002) hypothesis, greater life satisfaction comes from pursuit of high levels of both eudaimonia and hedonia, known as the full life, as opposed to either the experience of one alone or low levels of both (Huta & Ryan,



2010). Well-being comprises the extent to which objective human needs are fulfilled, and more importantly the subjective perceptions and interpretations a person has regarding the conditions of their current state (Costanza et al., 2007). The combination of these facets can be seen in table 2.1. The variability of well-being in relation to the transitions and challenges people encounter throughout life reveals it is as a dynamic construct (Ryff et al., 2004). Based on the interaction and overlap between SWB and PWB, each influences the other throughout a person's existence (Keyes, Shmotkin & Ryff, 2002). It is also likely that differences and fluctuations are caused between other branches of well-being as many of these indicators can change from moment-to-moment.

Table 2.1 *Brady and Grenville-Cleave (2017) summary of well-being domains and their common indicators*

Domain of Well-being	Illustrative Well-being Indicator
<b>Eudaimonic Well-being (EWB)</b> (Ryan & Deci, 2001)	Meaning Self-realisation The degree to which one is fully functioning
<b>Emotional Well-being</b> (Schalock & Verdugo, 2002)	Contentment Self-concept/identity Lack of stress
<b>Physical Well-being</b> (Schalock & Verdugo, 2002)	Physical health Activities of daily living Leisure
<b>Material Well-being</b> (Schalock & Verdugo, 2002; Cummins, 1996)	Financial status/standard of living Employment Housing
<b>Developmental Well-being</b> (Schalock & Verdugo, 2002; Cummins, 1996)	Education Personal competence Performance/achievement in life
<b>Rights/civic Well-being</b> (Schalock & Verdugo, 2002)	Human Legal
<b>Safety/security</b> (Cummins, 1996)	Personal safety Future security

**2.1.6 Well-being Defined for the thesis.** To arrive at a definition of well-being for this thesis, it was necessary to review the literature regarding the history and background of well-being. The existence of a large diversity of well-being interpretations (Gasper, 2010) and a combination of different definitions has contributed towards what has been adopted in this thesis and represents my understanding of this concept. An amalgamated conceptualisation was deemed appropriate as I was unable to find a definition in the literature that satisfactorily encompassed my complete interpretation of well-being. Additionally, acknowledging the existence of multiple descriptions of well-being were thought to embrace the *broadness* and account for the *richness* of the concept. Practically, it took some time to arrive at this point, especially when considering researchers have previously identified the challenges of defining well-being (Seligman, 2011; Dodge et al., 2012). It also felt appropriate to account for the conceptual thoughts of the participants within the studies of this thesis. The justification, in part, for adopting this definition is that it has strong parallels with some of the data that emerged in studies two and three. Indeed, some of the influences within the definition arose from these studies that will be presented in chapters four and five.

Given the review of the literature, the main sources that influenced my understanding and provided a basis for the construction of my integrated definition, were the WHO's (World Health Organization, 1997) interpretation of QOL, Dodge et al.'s (2012) definition and interpretive see-saw model of well-being, and that of the participant's interpretations of well-being within studies of the current thesis. Other elements were extracted from other research conceptualisations and academic explanations to generate a definition (Shin & Johnson, 1978; Ryan & Deci, 2001). I felt that each of these, in their own way, made some important contributions regarding representation of my understanding on what well-being is, but on their own were insufficient in capturing the full extent of this understanding. A full review of all proposed well-being definitions and conceptualisations to date is beyond the scope of the current thesis, however it was deemed appropriate to briefly present Dodge et al.'s (2012) definition of well-being as "*the balance point between an individual's resource pool and the challenges faced*" (p.230) because of its influence upon and contribution to the definition of well-being for this programme of work. Dodge et al. (2012) designed a see-saw model to illustrate their definition whereby the see-saw represented an individual's drive to return to a set-point of well-being and their need for equilibrium and homeostasis (or balance). On one side of the see-saw, challenges (psychological, social and physical) were aspects that influenced this equilibrium into states of imbalance, and on the other side, resources (psychological, social and physical) determined whether a state of balance was achieved.

The key theme that emerged as fundamental to my understanding of well-being was that of how somebody perceives and subjectively evaluates their personal situation and what is going on in their life. Essentially, two people could find themselves in the exact same position under the same circumstances but could experience different levels of well-being as a result of their perceptions about their situation. Another consistent factor evident across the well-being definitional research is that of the multi-dimensional nature of well-being. This incorporates an infinite number of contributors that are personal to the individual depending on what they prioritise as important to their well-being. A central part of this notion is whether the individual is capable of finding balance within the challenges of these dimensions by having available resources to do so.

For the purpose of this PhD, well-being will be defined and referred to as:

*“An individual’s perceptions regarding the balance state between challenges they are facing and their resources. The perceived balance focuses on their human needs, desires, and circumstances, in accordance with self-selected criteria. It is a multifaceted concept relating to an individual’s global subjective interpretations about dynamic factors such as physical state, cognitive life satisfaction, affective happiness, psychological and social functioning, and personal development.”*

## **2.2 Well-being Theories and Models**

The magnitude of the well-being field has resulted in a plethora of different theories being proposed. Whilst well-being theories continue to emerge and evolve, an exhaustive description of all that exist is beyond the scope of this thesis. Instead the focus of this chapter is to discuss and appraise some of the different approaches by drawing upon previous attempts to categorise these theories and models of well-being to aid understanding. A number of researchers have attempted to group the different theories to demonstrate their relation to one another (Lambert, Passmore & Holder, 2015; Thorburn, 2015). For this chapter of the PhD, a summary of the framework proposed by Lambert et al. (2015) will assist in providing a broad understanding of well-being and the associated conceptual issues (Figure 2.1).

The framework provides a foundation for which to understand well-being by categorising the different theories along certain dimensions. Well-being can be understood through its origins, according to the assumed philosophical tradition or orientation, and can also be addressed by which psychological framework or perspective it derives from. The roadmap displays the strong foundation upon which the concept of well-being is built and understood, as well as highlighting a broad insight into the similar, yet distinct, determinants of happiness and well-being. The framework will now be discussed.

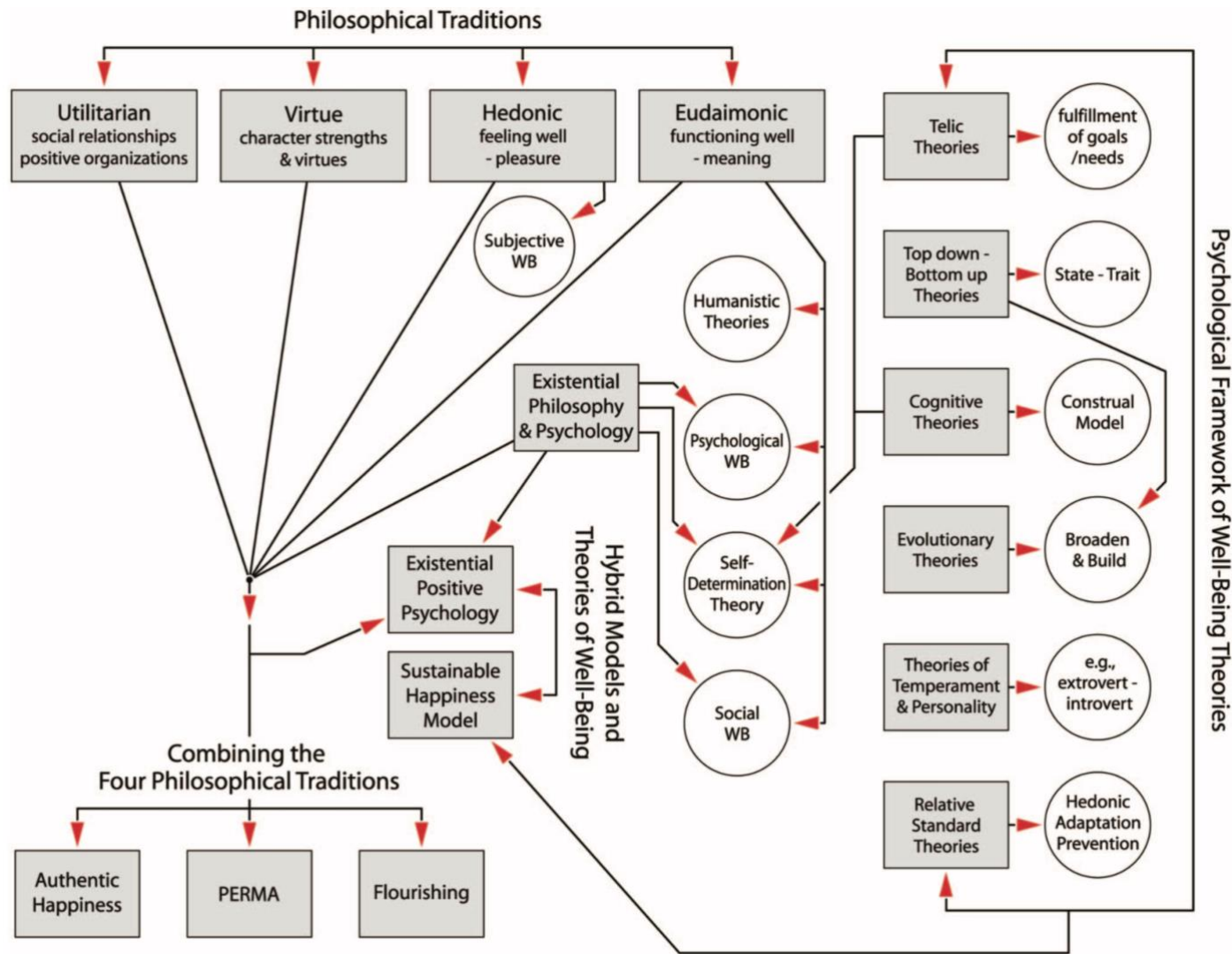


Figure 2.1. Lambert et al.'s (2015) Roadmap of well-being orientations and theories.

**2.2.1 Philosophical traditions.** The first philosophical tradition utilitarianism, endorsed by Jeremy Bentham (1748-1832), follows the two principles of happiness and consequentialism. Humans are guided by pain and pleasure in terms of what determines their standards of right and wrong, and actions are considered right if they are useful and for the benefit of the majority (Bentham, 1996). The principle understandings of utilitarianism are that happiness ought to be maximised and that the greatest amount of people should feel the value of this collective happiness (Brülde & Bykvist, 2010). Action and behaviour are based on the tendency to augment pleasure and diminish pain for the self and the surrounding parties, suggesting certain underlying hedonic tones (Bentham, 1996).

The second philosophical tradition of virtue recognises that people should draw upon their personal character strengths and desirable traits to obtain and preserve well-being, as these provide the basis for positive and pleasurable experiences (Peterson, Ruch, Beermann, Park & Seligman, 2007). Traits characteristic of strength should be utilised to enable a person to thrive (Peterson & Seligman, 2004).

As discussed earlier in the literature review, Hedonia and Eudaimonia are generally deemed the major philosophical orientations within positive psychology and well-being (philosophical traditions three and four). The characteristics of these four somewhat conceptually overlapping but distinct traditions engender different types of theories. Although this framework has identified four traditions, essentially, they could be interpreted and separated into the two main orientations. Utilitarianism appears to bear similarities with hedonism, and virtue seems comparable to eudaimonism, as the concept relates to working towards being the best version of oneself. Other researchers have also given recognition to this claim (Brady and Grenville-Cleave, 2017). Within a review of well-being in competitive sports, hedonic and eudaimonic philosophies have similarly been highlighted by Lundqvist (2011) as the two leading perspectives, giving support for this reflection (see figure 2.2 at the end of this chapter). Lundqvist (2011) attempted to provide an integrated model of how well-being can be influenced at a contextual level, specifically through sport, and demonstrated the transfer of the two major orientations within the sporting context. This attempt to propose a more holistic model of well-being specific to sport signifies a conceptual advance, which will aid understanding of well-being from these two key perspectives, as it highlights potential crossover between dimensions and levels of well-being

To avoid detailed repetition, the Hedonic and Eudaimonic philosophies have been explained earlier in the literature review. To recap however, hedonic accounts of well-being are based upon the view that a person should focus on the pursuit of pleasure and positive

emotions, the quality of their experiences, and what would make their life the happiest. In essence, Hedonia is about feeling good (Kahneman, Diener & Schwarz, 1999; Keyes & Annas, 2009). To date there has not been a rich tradition of theories emerging under the hedonic approach. Lambert et al. (2015) give recognition to subjective well-being, however this is not technically a theory but rather more of an idea and has been treated atheoretically. SWB has not been adopted in the same way as the Eudaimonic tradition. For reference, subjective well-being has also been explained earlier in the literature review.

Eudaimonism views well-being as a way of life that requires effortful challenges and pursuits, often with immediate negative affect, but enhanced overall well-being in the long run (Higgins, 2006; Ryan, Huta, & Deci, 2008; Keyes & Annas, 2009; Lambert et al., 2015; Seligman, Parks, & Steen, 2005). In essence, Eudaimonia is about functioning well and living a life that has meaning, personal development and fulfilment (Huta, Park, Peterson & Seligman, 2006; Waterman, 2007). The fundamentals upon which well-being theories have been built reflect the differences and subtleties originating at the core of the concept, which have created a foundation for challenging theorization.

**2.2.2 Eudaimonic theories.** Lambert et al.'s (2015) framework features a number of theories or theory categories that are important indicators of Eudaimonia (e.g. humanistic theories, psychological well-being, self-determination theory, social well-being). The more contemporary, conceptual theories of psychological well-being and social well-being have previously been discussed in the earlier section of defining well-being in this literature review (Ryff, 1989; Keyes, 1998) and thus the next section will pay attention to the remaining branches.

**2.2.2.1 Humanistic Theories.** Humanistic theories reflect Eudaimonia by emphasising that well-being is about the cognisance of human needs. They focus on the ways humans strive for positive personal growth and work towards optimal functioning and fulfilment (Lambert et al., 2015; Rogers, 1961). Humanistic theories give attention to a sense of individual choice, accepting responsibility for one's own actions, and finding congruence between the self and the ideal self in order to create a meaningful life (Rogers, 1961; Maslow, 1968; Lambert et al., 2015). Humanist theories focus on positive qualities, such as self-actualisation and peak experiences, and confront enquiries about what makes life worthwhile (Maslow, 1986; Lambert et al., 2015).

**2.2.2.2 Self-Determination Theory (SDT).** Self-determination theory recognises the realisation of three inherent human needs as fundamental to attaining well-being: (1) competence – feelings of effectiveness and efficiency during interactions with the environment

and whilst completing tasks, (2) autonomy – being in control and feeling there is choice in one's own behaviours, and (3) relatedness – feeling connected and a sense of belongingness to others (Ryan & Deci, 2000; Lambert et al., 2015). When individuals meet these needs through pursuing their goals, well-being is achieved.

Self-determination theory has been applied with regularity amongst sport psychology research. SDT has been used to examine exercise and physical activity behaviours, the role of perceived coaching style and behaviours, and parental autonomy support upon need satisfaction, motivation and well-being (Gagne, Ryan & Bargmann, 2003; Reinboth, Duda & Ntoumanis, 2004; Blanchard, Amiot, Perreault, Vallerand & Provencher, 2009; Adie, Duda & Ntoumanis, 2012; Teixeira, Carraça, Markland, Silver & Ryan, 2012). Results of this work exploring well-being from a motivational perspective has revealed a positive association between athletes' need satisfaction and their well-being. Essentially, SDT research has often showed well-being as being linked to settings and behaviors that encourage the satisfaction of these basic needs (Amorose, Anderson-Butcher & Cooper, 2009; Adie et al., 2012).

Awareness of eudaimonic theories appears paramount within the current thesis as the sporting realm can significantly impact many of the features within eudaimonic existence. As the focus in this thesis is upon athletes currently engaged in elite levels of their sport, it is likely that these people will derive meaning within this setting, will seek to develop themselves as athletes alongside their life as a person, and will engage in specific social circles, which will all have potential to create or disrupt well-being.

**2.2.3 Combining the Philosophical Traditions.** The hedonic and eudaimonic approaches both have distinct features and individually rationalise well-being in different ways. To neglect the pursuit of high levels of either one would result in an incomplete representation of well-being, would cause our understanding of true human experience to fall short, and would prevent optimal benefits (Keyes & Annas, 2009; Lambert et al., 2015). The emphasis of feelings within hedonic theories disregards the importance of functioning and striving towards personal goals and fulfilment. Equally, eudaimonic theories accentuate functioning whilst overlooking individual's feelings about their lives and their experiences. With consideration for this potential weakness, Lambert et al.'s (2015) framework showed a number of theories have attempted to draw upon more than one philosophical tradition to provide more well-rounded concepts about well-being. There can often be some considerable overlap between theories and the content of particular perspectives. As stated previously traditions can overlap and theories can also often apply within and cut across more than one tradition and may not

always be suited to a single categorisation. Theories adhering to a mixture of traditions and/or perspectives are presented in Table 2.2.

Table 2.2 *Summary table of the theories of well-being which represent a combination of the philosophical traditions.*

Combined Theory	Theoretical suggestions	Philosophical Tradition
Authentic Happiness (Seligman, 2002)	<p>3 routes to happiness:</p> <ul style="list-style-type: none"> <li>- The pleasant life (pleasures)               <ul style="list-style-type: none"> <li>• Having maximal positive emotions.</li> </ul> </li> <li>- The good life (engagement)               <ul style="list-style-type: none"> <li>• How engaged people are in their lives</li> <li>• Emphasises the connections people have to their endeavours, through their ability to apply their character strengths and virtues.</li> </ul> </li> <li>- The meaningful life (meaning)               <ul style="list-style-type: none"> <li>• Utilising personal strengths to attain things more worthwhile than just self-pleasures and desires.</li> <li>• Strongly associates with eudaimonic traditions, but also reflects a utilitarian perspective.</li> </ul> </li> </ul>	<p>Hedonic</p> <p>Eudaimonic, virtue</p> <p>Eudaimonic, utilitarian</p>
PERMA (Seligman, 2011)	<p>Modification of the authentic happiness theory:</p> <ul style="list-style-type: none"> <li>- (P) ositive emotion</li> <li>- (E) ngagement</li> <li>- (R) elationships (positive)</li> <li>- (M) eaning</li> <li>- (A) ccomplishment</li> </ul> <p>Proposes that well-being requires the fostering of one or more of the five intrinsically motivating elements.</p>	<p>Hedonic, eudaimonic, virtue, utilitarian</p>
Flourishing (Keyes, 2002; 2005)	<p>Proposes well-being as a state of complete mental health.</p> <p>The presence of healthy functioning as well as absence of psychopathology/mental health issues (Lambert et al., 2015).</p> <p>Flourishing features aspects of PWB, SWB and social WB and therefore overlaps between all four philosophical traditions (Keyes, 1998).</p>	<p>Hedonic, eudaimonic, virtue, utilitarian</p>



**2.2.4 Alternative conceptualisations of well-being.** Many approaches to well-being are not fully represented within the four philosophical traditions of utilitarianism, virtues, hedonia, and Eudaimonia. Diener and Ryan (2009) grouped contemporary theories of well-being into a psychological framework to offer alternative conceptualisations outside of the four traditions. Six categories of well-being theories emerged within this psychological perspective: telic, top-down versus bottom-up, cognitive, evolutionary, temperament and personality, and relative standard (Lambert et al., 2015).

**2.2.4.1 Psychological framework of well-being theories.**

**2.2.4.1.1 Telic theories.** Telic theories propose a state of well-being or individual happiness is achieved when a particular end-point, goal or need is fulfilled (Diener, 1984; Diener & Ryan, 2009; Ryan & Deci, 2000). Essential to these theories is the consideration for what the end-point embraces. For example, whether fulfilment of desires leads to well-being or that some desires are in fact damaging to well-being; whether short-term satisfactions are favourable to long-term costs; and whether the journey towards a goal is actually more satisfying than achieving it (Diener et al., 1997). These goals or needs underlying well-being and fulfillment are considered innate, such as Ryan and Deci's (2000) Self-Determination Theory. It is proposed that goals may also develop through sources independent from inborn needs; for example, those that are self-selected.

**2.2.4.1.2 'Top-down' versus 'bottom-up' theories.** 'Top-down' theories view well-being as an inborn trait, whereby inherent tendencies a person possesses to experience the world in a particular way will affect their interactions with the world. The more positive a person's state of mind, the greater their potential to interpret experiences and events in positive ways in comparison to people with inherently more negative perspectives (Lambert et al., 2015). 'Bottom-up' theories claim that well-being is a state that arises as a result of the accumulation of positive experiences or moments (Lambert et al., 2015). These two theories debate that well-being is influenced either in relation to the disposition of a person's attitude or their reaction to the objective events they experience.

**2.2.4.1.3 Cognitive theories.** Cognitive theories are related to top-down theories as they focus on the influence of cognitive processes in determining individual well-being (Lambert et al., 2015). Well-being is determined by whether a person is inclined to focus their attention on positive or negative stimuli, and whether their interpretation and memories of events are positively or negatively centred, such as the construal model of happiness (Lyubomirsky & Dickerhoof, 2010). This model suggests that both a person's circumstances and their temperaments affect their well-being. It is the interaction between life circumstances and how

a person subjectively interprets or ‘construes’ these.

*2.2.4.1.4 Evolutionary theories.* Evolutionary theories of well-being acknowledge that positive emotions and feelings of pleasure are valuable to aid human survival and adaptive behaviour (Lambert et al., 2015). For example, Fredrickson’s (1998) “broaden and build theory” proposes that positive feelings allow people to broaden their attentional repertoires, which subsequently highlights opportunities for them to enhance personal (physical, psychological, social and intellectual) resources to access for future use. Essentially, experiencing positive emotions and feelings of happiness has adaptive advantages for humans, as they yield motivation for particular adaptive behaviours (Fredrickson, 2006).

*2.2.4.1.5 Theories of temperament and personality.* Theories have also discussed the consideration for temperament and personality in establishing variance between each individual’s capacity for well-being. Extroversion is commonly associated with happiness, well-being or positive affect (Diener & Lucas, 1999; Lucas & Fujita, 2000). These theories place emphasis on the effect of genetic inheritance and expression on well-being levels of individuals, which can often be substantial. The interaction of heritable traits with roles of the environment, life circumstances, and personal choices must not be forgotten in their influences on well-being (Lambert et al., 2015).

*2.2.4.1.6 Relative standard theories.* Relative standard theories of well-being focus on appraisals between one’s own well-being standard and other particular standards (e.g. one’s past, other individuals, needs or goals, ideals, or actual conditions: Lambert et al., 2015). For example, adaptation theories suggest that people make comparisons between their current level of well-being and the standard of their recollected level of well-being in the past. They will be content if their current life exceeds their previous life standards (Brickman, Coates, & Janoff-Bulman, 1978). However, within these adaptation theories, individuals are assumed to be controlled by a *hedonic treadmill*. This term refers to the temporary nature of the effect that recent changes in life conditions has, before the individual becomes acclimatised to those new conditions (Brickman & Campbell, 1971). The intensity of emotions resulting from certain events are short-lived and so fade over time, as the individual’s standards are sensitised by such events (Fredrickson, 2001), which causes a decrement in the ability of that event to induce feelings of well-being (Brickman & Campbell, 1971). Building on this, Sheldon, Boehm and Lyubomirsky, (2012) proposed hedonic adaptation prevention theory, whereby individuals can delay the desensitisation to positive events by cherishing positive moments for extended periods, and not fixating too quickly on future objectives, as this will reduce current feelings of happiness.

**2.2.5 Hybrid models and theories of well-being.** Taking contributions from multiple branches within the roadmap, hybrid models of well-being have input from a combination of philosophies, frameworks and theories, and present conceptualisations of well-being beyond the major traditions (Lambert et al., 2015). These models are presented in Table 2.3

Table 2.3 *Summary table of the Hybrid models of well-being presented in Lambert et al.'s (2015) framework.*

Hybrid Model	Model suggestions
Sustainable happiness model (Lyubomirsky et al., 2005)	<p>Suggests several elements contribute to well-being.</p> <p>Three major factors that govern happiness:</p> <ol style="list-style-type: none"> <li>1. Genetics</li> <li>2. Circumstances</li> <li>3. Personal choice of activities and practices</li> </ol> <p>Multiple well-being theories within the proposed psychological framework of Diener and Ryan (2009) discussed above are integrated within this model.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>- Bottom-up theories that address how experiences can generate positive affect</li> <li>- Top-down trait theories that account for inherited contributions to well-being</li> </ul>
Existential Positive Psychology (EPP) model (Wong, 2010)	<p>A consolidation of existential psychology and positive psychology to form EPP.</p> <p>Proposes that to achieve well-being, life experiences and existential questions must be addressed together as a whole, as one without the other would not represent the richness of human experience.</p> <p>EPP integrates negative experiences, including existential anxieties, with positive experiences, and encompasses the four philosophical traditions, along with the tradition of existentialism (Yalom, 1980).</p>

**2.2.6 General comments arising the Lambert et al. framework.** Lambert et al (2015) summarise their framework by highlighting a number of criticisms regarding the weaknesses and potential deficiencies of the well-being theories within positive psychology. First, such inadequacies include many theories being considered excessively individualistic, and too focused on ‘individual happiness’ by not accounting for the recognition or potential prioritisation of family, religion, culture etc. in well-being. Second, the lack of consideration for negative emotions and their relationship or even contribution to well-being, and physical

health and the role the physical body plays within well-being. Third, although health does not comprise either hedonic or eudaimonic traditions, elements of health can often generate changes to affective states and cognitions (Ryan & Deci, 2001). Since this theoretical map was created by Lambert and colleagues, MacDougall, O'Halloran, Sherry and Shields (2016) proposed an advance on Lundqvist's (2011) model of well-being in sport to include a dimension of global and sport-related physical well-being. Globally, physical health and well-being was reflected through general health (i.e. absence of illness, pain, secondary conditions, instability of impairment), tiredness and sleep quality. Sport-specific physical health and well-being related to health as an athlete (i.e. free of injury) and athlete burnout, tiredness or exhaustion. As the study was conducted with para-athletes, certain considerations were related to their impairments. The athletes perceived an interaction between their health and their subjective well-being and acknowledged that certain health factors had impacted it negatively.

**2.2.7 Summary of well-being related theories.** The complexity of Lambert et al.'s (2015) work illustrates that well-being is a multifaceted concept with a diversity in the components proposed within the different theories and models. Numerous researchers have attempted to generate and blend various theories to explain it. Theories seem to overlap between their suitability against certain perspectives or traditions and often draw on more than one philosophical or psychological orientation. This overlap therefore reflects that well-being is conceptually complex and can be interpreted through multiple lenses, which could be construed as both encouraging and concerning because of the depth and potential messiness that may prevail respectively. Researchers are yet to provide one, all-encompassing theory to rationalise well-being, which may limit confidence in the construct. Instead they have proposed an array of different theories that apply and are useful for different contexts and purposes. Theories of well-being may be understood as emphasising aspects of particular dimensions to various degrees and often sit under various categories. Though consensus is yet to be found, there appears to be agreement within the theories that well-being is beyond the absence of ill-being or disorder and in fact may be fairly represented through the presence of multiple positive characteristics. On the contrary such diversity in conceptualisations provides an array of possibilities with which to explore the topic.

These theories approach well-being from a *researchers'* perspective through their propositions of its meaning, but highlight that well-being is likely to be highly *subjective* and *individual*. This point, along with the complicated qualities of well-being apparent within Lambert et al.'s work, suggests the importance of understanding from people, *what well-being is for them*. Implications for this PhD suggest that to further understand the relationship

between well-being and sport performance first, appreciation of how well-being is interpreted by people who experience this relationship is needed. As this section has demonstrated the intricacies evident within well-being, two of the studies within this thesis will examine well-being in terms of a construct generated from the understanding of participants. This approach aims to capture participant interpretations of what well-being means to them and what can influence their well-being, as opposed to attempting to impose a researcher driven preconception upon the participants and their experiences.

### **2.3 Quantitative Measures of Well-being**

The extent of discrepancy with regard to the definition and theoretical foundation of well-being, and the personal nature of its meaning, highlights the fundamental challenges and complexities of measuring the construct (Deci & Ryan, 2008; Dodge et al., 2012). Well-being can be measured according to both the broad approaches of objective and subjective markers, and a universally accepted measure is yet to emerge (Layard, 2010). There is a general consensus that both approaches are necessary.

**2.3.1 Objective well-being indicators.** Well-being in an objective sense is characterised by the judgement of happiness according to externally generated assumptions about what is necessary for an individual (Selwyn & Wood, 2015). These judgements are represented through indicators that demonstrate the extent to which these assumptions have been satisfied (Selwyn & Wood, 2015). Objective measures of well-being are signified by more traditional markers that can be estimated or determined by individuals other than the person experiencing the well-being (Waldron, 2010). These markers typically cover three key areas: economic (e.g. employment status, household income, materialistic wealth), quality of life (e.g. life expectancy, level of educational achievement), and environment (e.g. air pollution, water quality; Selwyn & Wood, 2015). The extent that someone is physically healthy may also offer objective correlates of well-being, through measures such as blood pressure, weight, and also the presence or absence of a disease or illness. Although these objective measures may be utilised to provide an indication of physical health, they present aspects correlated with, but not explicitly indicative measures of, well-being.

A number of concerns have been identified with regard to using objective indicators as sole measures of well-being. Although objective markers of well-being are crucial for determining factors such as health and income, they can only offer a partial account of what it means to live well and can often be an oversight for what truly matters: how someone is feeling (Waldron, 2010; Stiglitz, Sen & Fitoussi, 2010). Whilst material wealth and health may increase a person's probability and opportunity for happiness, these markers are only predictors

for the likelihood of well-being and do not determine or guarantee high well-being levels (Naci & Ioannidis, 2015). In light of this point, although researchers have proposed that well-being can be measured through the aforementioned markers, in line with the definition of well-being within this thesis this may not be acceptable. If well-being is considered as a person's interpretations and perceptions of their situation, presumably physical well-being would be represented by the views one has about their physical state, physical capacity and the function of their body. Relative to these concerns, subjective well-being measures are viewed as essential to gain more accurate insight and measurement, because what people feel about their lives matters.

**2.3.2 Subjective well-being indicators.** Subjective indicators of well-being are based on self-reported perceptions, designed to measure thoughts and feelings a person has about their well-being, according to their own judgements and evaluations (Michaelson, Mahony & Schifferes, 2012). The individual is the only appropriate person to make subjective evaluations about their own well-being that are reflective of their experiences (Dolan & Metcalfe, 2012). Others may only offer subjective estimations because they cannot make accurate judgements about how another person has been feeling.

Information based on these subjective indicators can be gathered in a number of different ways. The most common being quantitative questionnaires, due to their efficiency and time-sensitive collection, in comparison to the more time-consuming qualitative interviews, focus groups, and diaries, which can be burdensome for both researcher and respondent (Mayring, 1991). Questionnaires provide quantitative data that is easy to replicate and gather standardised information across studies, and results can be compared to establish trends and patterns (Michaelson et al., 2012). Numerous questionnaires exist for measuring well-being subjectively. Several broad approaches have emerged for measures aimed at establishing subjective well-being, including the evaluative approach, the experience approach, and the eudaimonic approach. Question design materialises differently depending on the focus of the survey and its aims. These three different approaches will now be discussed.

First, the evaluative approach refers either to people's global assessments of their life overall or to appraisals of particular domains within their life e.g. work, health, relationships etc. (Dolan & Metcalfe, 2012). Overall ratings involve either aggregation of scores from specific domains or from generic questions focused on global perceptions. These general subjective measures can be single or multi-item instruments (Cooke, Melchert & Connor, 2016). An example of an evaluative measure is the Satisfaction with Life Scale (SWLS), which measures global cognitive judgements of one's life satisfaction (Diener, Emmons, Larsen &

Griffin, 1985). Such measures allow for personal interpretation about what the individual judges as important within their own well-being (Waldron, 2010). This accounts for the expression of values in terms of the aspects of life that are emphasised for well-being (Waldron, 2010). Global evaluations about life in general can account for the individual differences in human perception and capture distinct thoughts and feelings specific to the person. This approach requires cognitive evaluations regarding someone's reflections about their life and measures 'life as remembered' (Clark, Fischer, Chapple & Senik, 2010).

Second, the experience approach considers an individual's assessments of the emotional quality of their life by referring to their collection of positive and negative feelings or emotions (Selwyn & Wood, 2015). This approach resonates with the hedonic philosophical tradition and aims to represent an unfiltered measure of 'life as it is lived' through retrospective recall of feelings (Clark et al., 2010). Surveys may involve general or domain-specific affect-related questions (Waldron, 2010). An example of a measure of experienced well-being is the Positive and Negative Affect Schedule (PANAS), which measures the experience of different positive or negative feelings and emotions (Watson, Clark & Tellegen, 1988).

Third, the eudaimonic approach explores an individual's evaluation of their internal world by asking about underlying psychological needs (Ryff, 1989; Selwyn & Wood, 2015). Whereas the experience approach assesses the pleasurable aspects of life, the eudaimonic approach measures aspects of reward that contribute to well-being, irrespective of whether they bring about pleasure (Hurka, 1993). Both are considered to contribute to well-being despite discrepancies between pleasurable experiences and those that are rewarding. Factors such as meaning, autonomy, control, and connectedness are underlying to, and protective of, mental health (Ryff, 1989). The eudaimonic measures require reporting of how much of each of these factors people perceive they have. An example of a eudaimonic measure is Ryff's Multidimensional Scales of Psychological Well-being (Ryff, 1989; Ryff & Keyes, 1995). Despite being independent, the eudaimonic approach may materialise within evaluative- and experience-based surveys, for example the perceived meaning attached to an individual life domain (e.g. career) may contribute to a person's self-reported well-being (Stone & Mackie, 2013).

As the well-being questionnaires have been designed with specific theoretical orientations in mind we can align our understanding more efficiently. With reference to the framework provided by Lambert et al. (2015) used previously in the thesis to appreciate the intricacies of the well-being theories, this model also assists our understanding of the well-being measures. By allowing us to position a selected measure somewhere within the

framework we are able to understand what it is attempting to measure, which in turn allows us to determine what it will be useful for.

**2.3.3 Well-being measures used in sport psychology research.** It is beyond the scope of this PhD to conduct an exhaustive review of all quantitative well-being measuring instruments. A literature review critically evaluating the self-report instruments measuring well-being or closely related constructs was conducted by Cooke et al. (2016) and focused on 42 well-being measures. The measures differ in terms of underlying theory and conceptualisation of well-being, format, psychometric properties, and size or handling time (Cooke et al., 2016). The majority of well-being measures utilised in the sport psychology domain derive mainly from general psychology and commonly carry significant psychometric evidence to support their validity and reliability. Researchers have also created a number of sport specific well-being measures. The sport specific questionnaires do not carry an equivalent level of psychometric evidence due to their limited application in comparison to mainstream surveys and have been used with a reduced variety of populations. At best, perhaps the evidence for validity and reliability across these questionnaires is limited. This section of the chapter will consider the most common measures of well-being applied within sport psychology research, of which there are a handful. These measures were considered helpful in terms of guidance regarding reviewing the literature on the relationship between well-being and sport performance later on in the chapter. The measures also provided some direction for conducting a systematic review for study one and selecting a suitable well-being measure for longitudinal examination of well-being and performance in study four.

Table 2.4 provides a summary of the most commonly applied well-being measures within sport psychology research and indicates the level of evidence of their psychometric properties. The table also presents the philosophical positioning of each measure included and provides evidence for the use of each questionnaire within sport psychology.

Often studies that have explored well-being in sport have incorporated more than one measure of well-being (e.g. Smith, Ntoumanis & Duda, 2010; Smith, Ntoumanis, Duda & Vansteenkiste, 2011; MacDougall, O'Halloran, Sherry & Shields, 2017). Researchers have carried out aggregate calculations between the response scores of multiple different surveys in an attempt to provide a more comprehensive reflection of well-being within their investigation. Examples of studies that have combined multiple measures include: Lundqvist and Raglin (2015) who used the PANAS, the SWLS + Ryff's PWB scales to cover measures of hedonic and eudaimonic well-being in their study of elite athletes. MacDougall et al. (2017) used the Short-form-36 Health Survey version 2 (SF-36v2; see <http://www.sf-36.org/>) to assess physical



well-being; the Scale of Positive and Negative Experience (Diener et al., 2010) and the SWLS to measure subjective well-being and hedonia; and Ryff's PWB scales, the Connor-Davidson Resilience Scale (CD-RISC; Campbell-Sills & Stein, 2007) and Keyes's (1998) 15-item Social Well-Being questionnaire to evaluate psychological and social well-being under Eudaimonia.

Table 2.4 *Psychometric evidence and examples for the most commonly applied well-being questionnaires within Sport Psychology research*

<b>Questionnaire</b>	<b>Original Paper</b>	<b>Subscales</b>	<b>Items</b>	<b>Philosophical Tradition</b>	<b>Psychometric Evidence</b>	<b>Sport Psychology Examples</b>
Positive and Negative Affect Schedule (PANAS)	Watson et al. (1988)	2 (Positive affect, Negative affect)	20	Hedonic	Crawford & Henry (2004) Crocker (1997) Melvin & Molloy (2000)	Gagné et al. (2003) Podlog et al. (2010)
Satisfaction With Life Scale (SWLS)	Diener et al. (1985)	1	5	Hedonic	McDowell (2010) Neto (1993) Pavot et al. (1991) Pavot & Deiner (1993)	Gaudreau & Antl (2008) Malinauskas (2010)
Psychological Well-being (PWB) Scale	Ryff (1989)	6 (Self acceptance, Positive relations, Autonomy, Environmental mastery, Purpose in life, Personal growth)	120, 20, 14, 9, 3	Eudaimonic	Springer & Hauser (2006)	Edwards et al. (2004) Edwards & Steyn (2008)
Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)	Tennant et al. (2007)	1	14	Hedonic & Eudaimonic	Tennant et al. (2007)	Dubuc-Charbonneau & Durand-Bush (2015) Bakir & Kangalgil (2017) Jowett et al (2017)
Subjective Vitality Scale	Ryan & Frederick (1997)	1	6, 7	Eudaimonic	Bostic et al. (2000)	Reinboth & Duda (2006) Podlog et al. (2010)

**2.3.4 Limitations of measuring well-being quantitatively.** Quantitative questionnaire measuring tools typically dominate the general and sport-related well-being research. There are several limitations. Each questionnaire attempts to obtain accounts of well-being that are comparable but with distinct features to other measures, resulting in a body of well-being research in sport that is unclear in parts. The inclusion or omission of specific domains within the questionnaire content, due to the subjective decision-making involved by those designing the instrument, is also a general concern (Diener et al., 2009; Forgeard, Jayawickreme, Kern & Seligman, 2011). The state of the well-being research is messy and slightly chaotic, as it has been overwhelmed with a reductionist approach of questionnaires that are varied in terms of their theoretical underpinning. Well-being as a term or construct is difficult to define as established earlier with the help of Lambert and her colleagues' roadmap. To accurately measure such a fluid concept, one that is perceived in many different ways as involving parts of everything but not really anything specific, is almost impossible. There are many arguments for the advantages of the different well-being measures, but a high reliance on quantitative assessments of well-being limits outcomes to only broad, general, researcher driven information that is based on fixed items (Polkinghorne, 2005).

Although the questionnaires contribute to knowledge, the complexity of well-being and its relationship with sport performance is worthy of richer exploration and production of more in-depth accounts that are beyond previous research that has used closed, pre-determined questions. The shift has begun towards this deeper approach with a small amount of research focusing on gathering detailed accounts of well-being qualitatively (e.g. Brady & Shambrook, 2003). Referring back, the framework provided by Lambert et al. (2015) highlighted our need to talk to people on a personal level. Qualitative exploration offers insight, context and more individually direct knowledge. This more flexible approach is needed to allow people to answer for themselves what well-being is, to gain significant insight into their own interpretations and provide invaluable understanding regarding the context of well-being and how it relates to performance.

## **2.4 Well-being research in sport**

**2.4.1 Previous research into well-being of competitive athletes.** Well-being has been widely covered across research within the sport and exercise domain (e.g. Scully, Kremer, Meade, Graham & Dudgeon, 1998; Fox, 1999; Penedo & Dahn, 2005; Conte, Kolb, Scanlan & Santolamazza, 2018). Despite this fact, investigation of well-being in a competitive sport context is a relatively new area of study that has developed over the last two decades.

Researchers who have explored the well-being of competitive athletes in depth have predominantly focused on: athlete's general well-being experiences within the sport context, theoretical understanding of what well-being is for athletes, and the impact sport participation has on well-being (e.g. Brady & Shambrook, 2003; Lundqvist & Sandin, 2014; Mayoh & Jones, 2015). Lundqvist (2011) summarised contemporary research, published between 2003 and 2011, with a focus on those studies employing well-being as the studies' dependent variable. The majority of studies implemented quantitative inquiry, and many were lacking robustness in their theoretical well-being basis and definition. Within these papers, well-being was represented by a variety of concepts such as: subjective vitality, self-esteem, positive and negative emotions/affect, life satisfaction, depression, stability of self-concept, burnout, satisfaction with sport, PWB dimensions, intrinsic interest in sport, physical symptoms, emotional and physical exhaustion. These papers explored general insights into well-being under themes such as need satisfaction and self-determination in terms of coaching behaviours, injury, coping, and transition out of sport, with approaches often aimed towards factors that contribute to or influence well-being. The review illuminated that exploration of well-being as an independent variable for sports performance is lacking.

There is a presence within the literature of individual components of well-being, such as mood and emotion (as opposed to general well-being) and their influence or relationship with sport performance. A short overview of the relationship between a small selection of individual well-being features and performance will be addressed within the systematic review in chapter three. A full review of this literature is beyond the scope of the current thesis as these topics are not fully representative of well-being, featuring only as facets within the construct. Whilst the research has been littered with these types of well-being component studies, this has diverted attention away from other areas and contributes to the lack of depth presently regarding the relationship between well-being and sport performance. Due to this limited research on the relationship, the well-being in sport literature, in a general sense, may offer some insight into potential facets of well-being considered as implicated with sport performance, and may inform the focus of the current thesis and questions. As a result, general well-being in sport literature will be discussed in the next sections of the literature review. The following sections of this review will first briefly summarise the literature on sport participation and well-being and will then consider the well-being experiences of athletes within a sport setting. Qualitative research on the relationship between well-being and sport performance will be discussed subsequently. Reviewing these fields of work will help to: (1) present a level of background to understand the general consensus of the study of well-being

in sport, and (2) highlight the limited research into the relationship between well-being and sport performance and position this in the context of the broader literature.

**2.4.2 Sport participation and well-being.** To help inform understanding about the well-being and sport performance relationship it is useful first to be aware of the sport participation and well-being literature. The inclusion of this body of work is based upon the notion that without participation in sport, there would be no performance. Essentially, performance arises out of participation, so familiarisation with the effects participation in sport has upon athletes may be of value. A brief outline of the research area regarding sport participation and well-being will help to guide and inform understanding of the well-being – performance relationship by positioning it within the global context of the well-being literature. This section will pay closer attention to the research concerning sport involvement relative to well-being, as opposed to that of exercise and physical activity, because the current PhD is focused on performance in high level sport, where competition is a significant factor that is typically absent from exercise. This literature will indicate the nature of the sport participation and well-being relationship trend. It will also allow for the realisation of potential contributors to athlete's well-being arising from sport participation according to previous findings.

A somewhat early review examining research into psychological well-being and sports participation found some mixed support for a relationship (Ruoff, 1995). Some of the included studies provided support for the psychological well-being benefits of sport (although the extent of this relationship was unknown) and other studies were inconclusive with no established correlational outcome. Inconsistencies within the studies examined resulted from methodological deficiencies, in terms of insufficient design with excessive reliance on questionnaires. Inadequate and variable definitions of terms, along with the standard and range of implemented measurement tools also obtained diverse representations of well-being, which may account for the conflicting conclusions of the review. These studies each focused on a different mix of participants regarding gender, age, country and chosen sport, making it difficult to compare across results. This research appears to highlight that well-being can vary in accordance with sport participation depending on the person.

According to Biddle and Mutrie (2008) participation in sport has long been recognised as a tool to improve physical health, and more recently mental and social well-being. Sports participation is commonly associated with positive outcomes such as physical fitness, decreased anxiety, personal and social development, and improved mood, self-perception and self-esteem (Gould & Carson, 2008; Blanchard et al., 2009). Other reviews have examined the positive implications of sports participation. Eime, Young, Harvey, Charity and Payne (2013)

conducted a systematic review exploring the psychological and social benefits of sports participation for adults. The review was based on relevant material between 1990 and 2012, with 11 studies fitting the applicable criteria. The most common benefits were improved well-being and reduced distress and stress. The major findings indicated more positive mental health and well-being for sports participants compared with non-sport participants or other forms of physical activity. Additionally, club and team sport participation were associated with higher levels of mental health, well-being and life satisfaction in comparison to individually-based activities in relation to the social aspect of participation. Across the selected studies sport was also suggested to yield well-being because it is an activity of choice as opposed to compulsion, it is intended to be recreational and enjoyable, and it can provide increased social support, social interaction and social functioning (Asztalos et al., 2009; Eime, Harvey, Brown & Payne, 2010). The recreational nature of sport was deemed important for having high levels of psychological well-being, with levels reducing when sport became competitive (Chatsizarantis & Hagger, 2007). Life aspirations were a key dimension in the mediation of this relationship, with the extrinsic focus of competitive sport on winning and the intrinsic focus on personal growth and health within recreational sport, contributing to the differing levels of well-being experienced. Despite Ruoff (1995) suggesting the need for research to branch away from cross-sectional based methods, almost two decades later within Eime and colleagues' (2013) review, cross-sectional, quantitative studies dominated the selected research. Limited inclusion of other methods, with only two qualitative studies suitable for their inclusion criteria, demonstrated a strong positivist bias, and could not offer strong support for causality or comprehensive understanding of the complex nature of an individual's experience.

Mayoh and Jones (2015) presented similar additional evidence for the benefits of sport participation for well-being in their appraisal of the literature. Attempting to address some of the aforementioned methodological restraints of the predominantly quantitative sport participation literature, Mayoh and Jones (2015) offered an alternative approach to understand how well-being could be attained through sport in richer ways than previous studies. They conducted a conceptual analysis drawing upon the existential theory of well-being known as "dwelling-mobility" offered by Todres and Galvin (2010). A phenomenological philosophy and humanistic approach was adopted to more deeply understand, consider and suggest the multiple ways well-being may be experienced through sport, by focusing on subjective human experiences as opposed to more objective variables that have inundated the literature. Mayoh and Jones (2015) used this theory to appreciate the complexity of well-being within a sport context, beyond traditional approaches, and sport was suggested to foster well-being in many

forms (e.g. a familiar environment and routine through regular timetabled training sessions, looking forward to and working towards positive events or future goals). Eighteen variations of well-being were postulated through the life-world dimensions of spatiality, temporality, inter-subjectivity, mood, identity and embodiment (Mayoh & Jones, 2015). Mayoh and Jones' (2015) approach intended to eradicate the simplicity assumed by quantitative research regarding the links between sport participation and well-being. They attempted to bypass the chaotic and inconsistently applied conceptualisation of well-being to accommodate for personally constructed meanings. Their conceptual proposal highlights the need for well-being research to adopt qualitative methods to capture the authentic expressions of the experienter. This thesis will explore the relationship between well-being and sport performance qualitatively in an attempt to gather a richer understanding of the associations between these constructs.

Similar to Chatsizarantis & Hagger's (2007) conclusions uncovered within Eime's (2013) review, a significant body of research has exemplified the negative well-being implications involved with participation in competitive or elite level sport. The world of competitive sport can illustrate alternative patterns for the effects of participation on well-being. Apart from explaining this in relation to life aspirations other mediators have been explored to comprehend why elite sport can be debilitating for well-being. A systematic review was carried out by Rice et al. (2016) with the object of synthesizing the emergent evidence of mental ill-health and psychological well-being of athletes in elite sport at national and international level. Sixty quantitative studies were considered. The majority of studies included focused on mental health areas such as anger and aggression, anxiety, eating disorders and body image, prevalence of mental health issues, elite athlete vulnerability to mental illness, substance abuse, stress, coping and well-being. Findings suggest the elite athlete is exposed to certain determining factors that evoke these types of issues. Such factors include managing performance difficulties or failure/loss, career transitions, injury, overtraining and burnout, intense public media scrutiny, body image concerns (particularly in aesthetic and female sports) and organizational factors such as the coaching environment and coach expectation. The review highlights some of the factors that may contribute towards well-being detriments. Athletes regularly face physical and psychosocial stressors that are both expected and unexpected whilst they strive for competitive success in a highly demanding environment (Bona, 2014). Social support, both formal and informal, was highlighted as contributing to athlete's mental health and well-being, especially with the general age of the competitive athlete overlapping with the peak age for the onset of mental illness and disorders. This

research suggests that appropriate support mechanisms are paramount to help athletes with the specific stressors they may experience as a result of high level sport participation as these have potential to extend into their performance. Talking to members within athletes' support networks, specifically those trained to address well-being, may offer perspectives beyond the athlete from an outsider looking in. Comparable with the research on positive aspects of sport participation for well-being, Rice and colleagues' (2016) review of the negative features once again identified predominantly cross-sectional studies.

The literature reviews in this field of work demonstrate how participating in sport can be associated with both positive and negative well-being. The methodological quality of the study designs and their reporting may have influenced the interpretations sport has for the different outcomes of well-being. With a predominance of 'one-off' surveys, evidence lacks generalizability to other cohorts. Additionally, research within the reviews has adopted a variety of definitions for both well-being and sport participation leading to difficulties in comparisons between studies. Awareness that the research generally illustrates recreational sport involvement as yielding higher well-being, and the more elite, competitive-level sport producing lower well-being, is key for the current thesis to anticipate potential incidences when high-performance is a factor in the study. Goals and values of sport participation may influence the well-being level experienced, performance processes, and performance outcomes, due to the athlete's approach and exposure to certain pressures. These positive and negative factors as such can impact the well-being of elite athletes due to their involvement in elite sport and mean they have the potential to impact on performance. Essentially if attention is paid to these factors there is scope to improve performance. More research is required to explore whether factors regarding well-being in relation to sport participation have any connection with performance.

**2.4.3 Well-being Experiences in Sport.** A number of researchers have examined the well-being experiences of athletes within a competitive sport context. Much of this area of interest has mainly referred to the concept of quality of life for athletes, and as previously discussed, whilst being a closely related construct, is not a representative substitute for the notion of well-being (Dodge et al., 2012). Quality of life (QOL) generally comprises a broader term including physical, as well as psychological and social aspects of functioning (Bullinger, Anderson, Cella & Aaronson, 1993). Consideration of the QOL literature is relevant for this review due to a cross over in terms caused by the lack of a clear, explicit conceptualisation of well-being (Dodge et al., 2012; Cooke et al., 2016). The commonly interchangeable use of the term QOL as an alternative for well-being and the shared foundational interest in positive



human experience of both constructs presents motive for including this area of work (Cooke et al., 2016). Some of the research presents as an exploration of QOL but discusses well-being related concepts. Other research states an investigation into well-being but actually incorporates a QOL measure. Research exploring athlete's QOL experiences will first be discussed. Following this, athlete well-being experiences will then be considered.

**2.4.3.1 Athlete's QOL experiences: positive versus negative.** In general, experiences of well-being in the form of QOL have shown discrepancies across the literature. Research has demonstrated a range of different levels of QOL experienced by a variety of athletes. Some of the research indicates generally quite positive QOL experiences for athletes. The earliest study compared the total life quality of 10 nationally ranked female long-distance masters runners with that of a control sample of non-athletes (Morris, Lussier, Vaccaro & Clarke, 1982). The athlete's QOL was significantly superior to that of the non-athletes. Similarly, in an unpublished conference abstract, international level track and field athletes from an English performance centre expressed subjective interpretations of their QOL as being genuinely good and, in some cases, virtually optimal (Brady & Shambrook, 2003). There is potential for athletes training at high performance centres to experience high life satisfaction or life quality as they often receive more resources and are provided with multidisciplinary professional support services, to foster self-maintenance, and deliver aspects that favour sport performance. Echoing these findings, centralised athletes have shown QOL scores representative of being in better physical condition than athletes not based at sport performance centres (Tanimaru & Dos Santos, 2016). Despite the potential advantages, however, research has demonstrated varied experiences for athletes at performance centres, which will now be discussed.

A number of comparison studies have been conducted to examine differences between the QOL of athletes residing at high performance sport centres in relation to that of non-residential athletes. One study between 42 Brazilian baseball players, half from a high performance centre and half a regular team, indicated satisfactory QOL judgements, in terms of QOL generally and specific to training and competition environments (Tanimaru & Dos Santos, 2016). While these athletes' QOL experiences were considered to be acceptable (and therefore positive) a 'satisfactory' representation of QOL may signify feelings far from the interpretation of QOL that is nearly ideal. Another study examined well-being differences (through the implementation of a QOL measuring instrument) between athletes living at a Dutch elite sport centre and those who trained independently (Verkooijen, Van Hove & Dik, 2012). Elite sport centre athletes reported a lower psychosocial well-being than those not living in a sport institute, but athletes did not differ on other QOL domains. Perhaps, the demand to

display consistently high competence at training centres and the pressure of these expectations negates the advantages for athletes, which is why similar or low levels of QOL have also been reported.

Some of the literature demonstrates that athletes' experiences of QOL are predominantly negative. A large sample of American college athletes reported reasonably low QOL experiences, with poorer interpretations for participants who played higher profile sports, such as basketball and football than other sports (Wrisberg, 1996). Quality of life was also not described as very high for athletes of a higher level, such as those in NCAA Division 1 or National-caliber amateur athletes.

It is not unexpected to reveal conflicting results within this area of research as the samples between the studies have significant variation. Particular sports engender different demands for the athletes involved. Training hours can vary considerably between sports, even at the elite level, placing differing amounts of physical and mental demands upon athletes depending on their sport. The physical requirements of performing in different sports are also diverse in relation to the length of time the athlete performs for and the level of exertion and endurance they must endure. With this in mind, training and competing with soreness or injury may be more manageable, and potentially more accepted, within particular sports in line with cultural or organizational differences for individual sports. Adding to these points, the pressure that accompanies certain sports can be much higher than others depending on the popularity of the sport, its fan base and the level of expectation of results. All of these factors have potential to influence the QOL of the athlete, which may account for the role of different sports in the variation of the research findings.

The athletes themselves may also be accountable for the conflicting results as each is individually different with their own personal situation and set of circumstances, so will contribute according to their experiences. An athlete's country of origin may explain variances in the research because certain countries place more emphasis on sport according to their sporting culture. Athletes within countries that are more sport-focused may feel added pressure to succeed, which may have an impact on their QOL, depending on their ability to cope effectively. In line with this, of the studies mentioned, college athletes in countries with prominent sporting cultures (e.g. USA) and where sport is a significant feature of their identity appeared to report lower QOL. Perhaps competing for these sport-focused institutions, with the realisation that performances are of great importance and meaning for significant people to the athlete (e.g. family, friends, teammates, coaches, spectators/fans, the media) bring pressures that are detrimental to QOL (Wrisberg, 1996). Or perhaps these pressures arise in line with the

connotations of receiving funding, scholarships or monetary income for those representing these establishments.

Research exploring the QOL experiences of athletes has been predominantly quantitative using surveys (Morris et al., 1982; Wrisberg, 1996; Verkooijen et al., 2012; Tanimaru & Dos Santos, 2016). The implementation of different QOL questionnaires will have gleaned a variety of different interpretations of QOL. One of the studies collected responses to a national intercollegiate survey and examined previously-conducted scholarly articles for quotes from athletes (Wrisberg, 1996). Whilst Wrisberg attempted to provide greater depth and insight from athletes, the method of reviewing old data cannot be supported per se as the reviewed articles may have been examining irrelevant research aims. Another study conducted interviews and applied a phenomenological analysis to the data (Brady & Shambrook, 2003). The range of research methods may account for the conflicting results within the literature. Although athletes in Brady and Shambrook's (2003) study reported frequent and diverse challenges, sacrifices and lifestyle demands that may be interpreted objectively as suggestive of low QOL, their subjective accounts of QOL were inherently positive. The importance of gathering a subjective understanding of QOL on a contextual level is highlighted, however as the potential for misinterpretation of objective conclusions from outsiders is based more on judgements of the researcher and may neglect true reflections of a person's experience.

**2.4.3.2 Factors affecting athlete's QOL.** Within the small number of studies uncovered, a number of factors were found as contributing to athletes' QOL (Wrisberg, 1996; Brady & Shambrook, 2003; Tanimaru & Dos Santos, 2016). They can be grouped under different factor categories (see Table 2.5). Despite only a limited amount of research exploring QOL qualitatively, the table demonstrates the volume of elements that may contribute, highlighting the need to consider such constructs in ways that can account for this multiplicity. By evaluating the factors emerging within this branch of QOL research, the similarities of this term, when considered alongside well-being, are clear. This research informs the current thesis by offering potential parallels with regards to factors that may influence well-being, and subsequently how they may interact with performance in sport.

**2.4.3.3 Athlete's well-being experiences and contributing factors.** Agnew, Henderson and Woods (2017) conducted a timely systematic review revealing nine articles related to the well-being of elite athletes. The systematic review focused on how being an elite athlete affects well-being in different ways. Across this literature, sport emerged as both favourable and detrimental for athletes' well-being in accordance with two themes (1) the sport environment, and (2) adversity.

The sport environment was considered as a significant part of well-being in relation to expectations and pressures imposed culturally and by significant others (Agnew et al., 2017). Positive features of the sport environment included: obtaining meaningful experiences through engaging in the sport culture, and having high support levels from sports institutes as well as others within the sport who share common experiences. Negative features of the sport environment included: complete immersion in sport resulting in lack of sport-life balance, isolation, and potential conflict within friendships due to team selections and varied work ethics.

Table 2.5 *Categories of factors identified as influential to athletes' QOL within the current review of the literature.*

<b>Category</b>	<b>Factors influencing QOL</b>
Physical	<ul style="list-style-type: none"> <li>- Physical fatigue/exhaustion</li> <li>- Level of available medical resources or services</li> <li>- Injury (frequency, competing with pain)</li> <li>- Physical shape/ fitness</li> <li>- Body consciousness</li> <li>- Drug use</li> </ul>
Psychological	<ul style="list-style-type: none"> <li>- Autonomy</li> <li>- Self-interest</li> <li>- Control</li> <li>- One-dimensional identity</li> <li>- Mental fatigue</li> </ul>
Social/ Relationships	<ul style="list-style-type: none"> <li>- Support</li> <li>- Lack of relationships/friendships outside the sport milieu</li> <li>- Isolation from non-sport peers</li> <li>- Satisfaction with relationships               <ul style="list-style-type: none"> <li>&gt; Personal e.g. family and friends</li> <li>&gt; Sport-related e.g. teammates and coach</li> </ul> </li> </ul>
Development	<ul style="list-style-type: none"> <li>- Limited opportunity</li> <li>- Lack of contentment with developing on a personal level</li> <li>- Reduced academic performance</li> <li>- Reduced ability to reach academic potential</li> <li>- Limited involvement in extracurricular activities</li> </ul>
Sport & Sport Performance	<ul style="list-style-type: none"> <li>- Loss of enjoyment for sport</li> <li>- Lack of satisfaction with athletic performance</li> <li>- Success – performance (2-way)</li> <li>- Sporting environment</li> <li>- Time demands of sport</li> <li>- Sport-related physical or mental abuse</li> </ul>
Opportunity for other life areas	<ul style="list-style-type: none"> <li>- Lack of time for leisure/non-sport related activities</li> <li>- Sacrifices in other life areas</li> <li>- Balanced life</li> <li>- Time away from academics</li> </ul>

According to Agnew et al. (2017), elite athletes are also inclined to experience challenges and are susceptible to a variety of risks, resulting in facing adversity. Some positive aspects of facing adversity within elite sport included development of protective factors such as mental strength and self-confidence, and improved knowledge about health. Facing challenges within elite sport allows athletes to build valuable life-philosophies and provides opportunities for personal growth. Some negative aspects of facing adversity within elite sport included: potential for burnout, pressures from internal and external sources, confidence decrements with poor performances, and injury.

A growing body of literature has employed qualitative research strategies to explore athletes' well-being experience from different perspectives (Dunn, 2014; Lundqvist & Sandin, 2014). Lundqvist and Sandin (2014) examined factors characterising and considered important contributors to athlete's subjective (SWB), psychological (PWB) and social well-being (Social WB) at a global and sport contextual level within a group of elite orienteers (N=10). Semi-structured interviews were used to investigate the psychosocial factors elite athletes themselves experience as necessary in order to achieve and maintain sufficient well-being during their sport career. Essentially, the researchers determined what athletes felt was needed for well-being in elite sport. The framework suggested by Lundqvist (2011) drawn upon earlier in the literature review worked as a guide and structure for the different perspectives of well-being within this study. Table 2.6 provides a detailed representation of the results from this study. Global well-being was perceived to act as a defensive shield or buffer for where the athletes experienced issues within sport, as a way to maintain well-being at a fundamental level. A key inference from the study outcomes was the appreciation for the well-being of athletes to be affected by both sport and non-sport factors, thus highlighting the need to approach well-being holistically. This finding therefore implies there is a high possibility that the relationship between well-being and sport performance may also be affected by factors endured in general life along with those that are only evident within the sport sphere. This study interprets well-being in a comprehensive light by presenting a large number of variables, both helpful and harmful aspects related to being an elite athlete, that contribute to their well-being and have potential to influence athletic performance. This also supports the value for a well-rounded examination within this field of work.

Well-being experiences have been considered from different perspectives including those of the athlete (Wrisberg, 1996; Brady & Shambrook, 2003; Lundqvist & Sandin, 2014; Tanimaru & Dos Santos, 2016), and also those with significant involvement in managing the well-being of the athlete (Dunn, 2014). Dunn (2014) conducted interviews with seven key

individuals from National Sporting Organisations (NSOs) or Player Associations (PAs) with the aim of understanding the current condition of the athlete well-being domain from the perspective of those involved with working broadly on *athlete well-being*. Results placed emphasis on the contribution of life factors outside an athlete's sport to their well-being, with acknowledgement for non-sport life areas as important components of in-competition sport performance. Presence of well-being development services varied with some sports having ingrained well-being programs and in other sports this area was emerging. The size of the sport and subsequent availability of funding explained some of this variation, with more popular, financially established sports being able to offer and engage in more well-being programs. Mental health arose as a major concern within all sports and the NSOs and PAs indicated a growing recognition and acceptance for the importance of athlete well-being. The research has begun to consider the views about well-being through a broader lens within the sporting world, however this research is still in its infancy. To expand knowledge around well-being in sport other avenues could also be explored, such as the views of other significant members of the team around the athlete. The current thesis will continue to examine well-being from different perspectives, including those of the sport psychologist and performance lifestyle advisor in chapter five.

The current section highlights a considerable number of factors identified across a seemingly small number of studies, reflecting the multifaceted nature and complexity of the term well-being and its related constructs. The majority of these factors were reported as having adverse effects on well-being or QOL and were often related to lacking in certain non-sport areas as a result of the demanding commitments of being an athlete. While many factors were deemed negative for well-being, Lundqvist and Sandin (2014) identified elements considered essential for athletes to achieve good well-being. Familiarisation with the potential volume and type of well-being factors provides some understanding of what may arise for athletes when considering the interaction with sport performance, and enables anticipation of performance fluctuations that arise accordingly. One consistent feature across the research is the presence (and importance) of sport-related factors, as well as factors relating to general life when considering athletes' well-being, emphasising the significance of a holistic view of this area. Awareness that an athlete functions within multiple environments and that these settings have a collection of things contributing within them alerts us to be mindful of the potential consequences each, or the interactions between both, environments could have upon performance.

Table 2.6 *Summary of Lundqvist and Sandin's (2014) major findings with respect to what orienteers perceive is required for well-being in elite sport.*

<i>Category</i>	<i>Factors needed for Well-being</i>
<b>Subjective Well-being</b>	
- Global	<ul style="list-style-type: none"> <li>- Satisfaction from within</li> <li>- Prominence of positive affective states</li> <li>- Satisfaction with perceived health               <ul style="list-style-type: none"> <li>- Feeling good</li> <li>- Being in balance</li> <li>- Feeling alive physically and mentally</li> <li>- Free of injury and sickness</li> <li>- Experiencing vitality</li> </ul> </li> <li>- Happiness</li> <li>- Harmony in life</li> <li>- Feeling mentally and physically secure</li> </ul>
- Sport-specific	<ul style="list-style-type: none"> <li>- Interest and enjoyment in their sport</li> <li>- Time taken to enjoy personally significant and successful performances</li> <li>- Quick mental recovery</li> <li>- Not too self-critical after disappointments and less successful performances</li> <li>- Free of injury and sickness</li> </ul>
<b>Psychological Well-being</b>	
<u>Self-acceptance</u>	
- Global	<ul style="list-style-type: none"> <li>- Self-esteem               <ul style="list-style-type: none"> <li>- Positive self-image independent of performance</li> </ul> </li> <li>- Personally relevant life values</li> </ul>
- Sport-specific	<ul style="list-style-type: none"> <li>- Sport confidence</li> <li>- Realistic personal sport performance standards</li> <li>- Multidimensional identity</li> </ul>
<u>Positive relations to others</u>	
- Global	<ul style="list-style-type: none"> <li>- Functional interpersonal relationships               <ul style="list-style-type: none"> <li>- Family</li> <li>- Love relationships</li> <li>- Friends</li> </ul> </li> </ul>
- Sport-specific	<ul style="list-style-type: none"> <li>- Supportive coach – trust</li> <li>- Functional relationship with friends in the sport</li> </ul>
<u>Autonomy</u>	
- Global	<ul style="list-style-type: none"> <li>- Make conscious decisions based on self-knowledge and an internal locus of control</li> <li>- Judge consequences of own behaviour</li> <li>- Manage problems</li> <li>- Curiosity and courage to try new things</li> <li>- Identify personally important goals and use effective goals setting strategies and planning for goals in line with own decisions and values</li> </ul>
- Sport-specific	<ul style="list-style-type: none"> <li>- Self-reflection on what is best for them and their athletic development based on own wishes and needs</li> <li>- Arrange training and competition plans to achieve own goals</li> </ul>

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	<ul style="list-style-type: none"> <li>- Judge whether situations and conditions in the elite context were acceptable for them and adjust to these</li> <li>- Choice of whether to act or behave like an elite athlete</li> <li>- Consciously choose and accept to sacrifice certain things in life to achieve athletic goals</li> </ul>
<u>Environmental</u>	
<u>Mastery</u>	
- Global	- Structuring life to have sufficient personal finances to handle daily life
- Sport-specific	- Notice and use available resources in the sport milieu (particularly when injured)
<u>Purpose in life</u>	
- Global	- Perceiving the most significant parts of life as meaningful (family and friend relationships, sport execution, work)
- Sport-specific	<ul style="list-style-type: none"> <li>- The possibility sport offered to achieve dreams and personally significant goals</li> <li>- Sport participation enables new experiences not possible in other settings</li> <li>- Set meaningful and personally significant training and competition goals that are perceived as purposeful and inspiring</li> </ul>
<u>Personal Growth</u>	
- Global	- Acquiring a formal education through school/university
- Sport-specific	<ul style="list-style-type: none"> <li>- Experiences from sport-related courses + sport psychology counselling also had positive effects on personal growth outside sport</li> <li>- Opportunity to travel and have new experiences</li> <li>- Moving away from home for training forced them to take care of themselves and be responsible</li> <li>- Identify and dedicate oneself to goals and face challenges to push own limits</li> <li>- Using successful performances to gain an inner sense of ability to handle challenges</li> <li>- Analyse performances and outcomes for self-confidence and identify areas for improvement</li> </ul>
<hr/>	
<b>Social Well-being</b>	
- Global	- Unconditional acceptance from others
- Sport-specific	<ul style="list-style-type: none"> <li>- Being part of an athletic and team coherence <ul style="list-style-type: none"> <li>- Liked by others</li> <li>- Accepted for who they are</li> </ul> </li> <li>- Seeing others positive characteristics</li> <li>- Rejoicing in others' successes</li> <li>- Offering consolation in adversity</li> <li>- Offering unconditional support regardless of performance</li> </ul>

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Although fundamental concepts of QOL and well-being for athletes have been touched upon and acknowledgment has been given for the potential effect of non-sport life areas on performance in sport, athlete and other significant support staff perceptions of the relationship between these well-being concepts and the quality of sport performance is yet to be explored. It is important to note that features within athletes' experiences of well-being and QOL are not limited to the ones mentioned, nor will these factors be expected to affect every athlete identically. Awareness that each athlete is unique and will have independent experiences of well-being depending on their own personal circumstances and background is paramount. These points highlight the need to explore this topic of the relationship between well-being and sport performance in a way that can capture and represent the intricacies of individual accounts. This thesis will aim to extend the qualitative approaches used to date to that of employing methodologies to understand stories of well-being relative to performance, with consideration for athlete and practitioner generated descriptions. Gaining advances in understanding this relationship may offer useful information to help in the support of well-being for athletes, which is an area becoming seen as more important in order for athletes to perform well.

## **2.5 Previous research into well-being and sport performance.**

Up to now the literature review has addressed well-being generally in sport, and it will now consider more specifically research that has explored well-being alongside sport performance. Costa (2017) suggested that well-being and performance are considered as complementary goals that exert bidirectional influence on each other. Despite there being a developing interest and an abundance of sport research incorporating well-being to some degree (e.g. Lundqvist, 2011), the literature addressing the relationship between well-being and sport performance to date is limited. This narrow body of work incorporates research that is both quantitative and qualitative. The current thesis will investigate scientific study that has assessed a relationship from a quantitative perspective, which will be carried out in the form of a systematic review conducted as study one, which will be presented in the next chapter. To foreshadow the next chapter's results, the systematic review did not ascertain consistent evidence of the relationship within the research. Prior to the evaluation of these quantitative forms of inquiry into the relationship between well-being and sport performance, this chapter will finish by focusing on the qualitative research that exists. Discussion of other relevant studies that did not suitably adhere to the specific systematic review criteria but provide some useful findings and interpretations on this topic are considered. The chapter will close with a presentation of the aims and research questions of the thesis.

Few studies have focused on the well-being – performance relationship and so the evidence comes from studies focused on broader or other topics. Of the extant qualitative research, it appears that studies have provided findings consistent with the elements of well-being and how these help or hinder sport performance, as opposed to explicitly examining the relationship between the two constructs (e.g. Douglas & Carless, 2006; Gould, Guinan, Greenleaf, Medbery & Peterson, 1999; Greenleaf, Gould & Dieffenbach, 2001; Price, Morrison & Arnold, 2010). Douglas and Carless (2006) conducted an interview study, commissioned by UK Sport, with retired and competing athletes (n = 21) from multiple sports. The research focused on understanding athletes' own experiences of how personal, lifestyle and environmental factors impact on and account for performance fluctuations. Although not categorically exploring the association of well-being and performance, factors characteristic of well-being arose within the research findings to highlight indirect links to performance via intermediary variables. Other work by Greenleaf et al. (2001) was part of large-scale project led by the United States Olympic Committee (USOC) to distinguish the positive and negative factors contributing to the thriving or under-performing of athletes during their Olympic Games performances. Components of well-being were described in the findings of these articles. Price et al. (2010) also conducted a mixed-methods study to establish the impact of non-sporting activities upon elite athletes' well-being and sport performance. The qualitative research is useful to the current thesis as it provides an understanding of some of the factors associated with well-being resulting in performance fluctuations. Due to the deficiency of research that has focused qualitatively on well-being and performance, by reviewing the closest literature, an understanding of some factors which may be associated with the relationship can be gleaned. This research, although limited by the number of studies available, will directly inform the current PhD allowing for research questions and interview guides to be better informed.

The research indicates that the well-being of athletes can be affected by relationships within the sport environment and also those external to sport, in-line with the support perceived or provided within these relationships, and that both types have potential for positive or detrimental performance influences. One frequently identified variable considered to have positive influences for performance was support (Greenleaf et al., 2001). Across the research, social support comprised factors such as coach support, familial support, feeling cared for, general social support, and teammate support (Greenleaf et al., 2001; Gould et al., 1999; Douglas & Carless, 2006). These findings are also consistent with the representation of positive relationships within the psychological well-being construct (Ryff, 1989). Personal networks such as family and friends were fundamental outside sport as they were seen to provide critical

proximate support when athletes had problems (Douglas & Carless, 2006). Even time spent with family and friends was considered to enhance and promote long-term sustainability of well-being, which indirectly facilitated athletic performance through maintaining and restoring motivation levels for the sport (Price et al., 2010). Athletes, including those of Olympic status have acknowledged the receipt of social support when they performed well, and those athletes meeting, or surpassing performance expectations perceived the experience of support from those significant others closest to them (Greenleaf et al., 2001; Gould et al., 1999). The contribution of external (non-sport) relationships to well-being, and in-turn how this was seen to lead to improved performance, has also been reported by professional athletes (Pink et al., 2015).

Different relationships within sport have also been considered as popular providers of support. Douglas and Carless (2006) found that mutual support from team mates resulted in performance benefits. Other sporting relationships of interest regarding support provided were those with national governing bodies, who were acknowledged for their provision of funding and support staff when athletes performed well, and a lack of access to these provisions when athletes did not perform well (Greenleaf et al., 2001). The most commonly discussed relationship within the sport environment was that of the coach-athlete relationship. Support has been provided regarding the significance of functional and positive coach-athlete relationships characteristic of care and trust for performances, due to their alleged effect on athletes' well-being (Greenleaf et al., 2001). This relationship has also been characterised by positive social support aspects, such as positive contact and friendship when athletes have performed well, and negative social support aspects, such as coach conflict when athletes did not perform well (Greenleaf et al., 2001). Coach-athlete relationships built on trust, communication and support have been found to be closely related to sport performance (Douglas & Carless, 2006). The life domain containing relationships is considered to affect how athletes perform due to the mental and emotional (features of well-being) effects it can generate (Friesen & Orlick, 2010).

Another common factor recognised as interceding within the relationship between well-being and sport performance is the balance an athlete has in their life. Variability in performance has been associated with balancing sport and off-field life due to the effect this has on athletes' well-being (Pink et al., 2015). Living a balanced life between football and other activities such as hobbies, social events and pursuit of other careers, was considered conducive for the well-being of Australian Football League (AFL) players, which was then assumed to have performance benefits (Pink et al., 2015). Comparably, results have also demonstrated that

elite athletes believed that simultaneously working or studying alongside their sport abetted their performances (Price et al., 2010). In line with these claims, Miller and Kerr (2002) suggested that “performance excellence is attained only through optimal personal development” (p.141). There have however been mixed experiences and views stated among athletes regarding the necessity of life balance, and these have diverged in relation to age and level of sport experience (Douglas & Carless, 2006). Younger athletes were more prone to take the perspective of sacrificing some parts of their lives and compromising balance for sport career benefits. More experienced athletes believed maintaining other areas of life alongside sport to be essential for life in general and for optimal performance, and that dismissing these other aspects of life was unfavourable for their well-being and performance. It appears that balance is about having other things in life alongside sport, but also about the contribution of each of these areas to athletes’ daily lives and schedules. The literature suggests that the stage of the athlete’s career may be key in determining the importance placed upon balance.

Friesen and Orlick (2010) highlighted that athletes have “multiple selves” (p.233) and contended that when components of the non-athletic self are struggling there is potential for elements of the athletic self, including performance, to also suffer. As well-being incorporates global evaluations of a person’s life, this may encompass both the sporting self and the general self, which is where the potential for the well-being of the *person* to interact with performance occurs. Other investigations offer more support for this by suggesting that athletes’ physical training will benefit the most when their other life areas are healthy or doing well (Price et al., 2010). This indicates that it is likely that athletes may experience performance fluctuations when they have personal changes. When considering the well-being – performance relationship it may be useful to address instances where these fluctuations are present even if they are not seen in both parts.

Athletes are increasingly seeking out support from relevant sport practitioners to deal with personal concerns that are not specifically sport-related, alongside their issues in sport (Anderson, Miles, Robinson & Mahoney, 2004). This highlights that athletes recognise that aspects unrelated to sport, and most likely related to their well-being have the potential to contribute to the way they perform. Although this research does not specifically address or present clear links or causes for the relationship, it provides a baseline of some useful indications of what factors may be acting as mediators between the influence on well-being and the in-direct effect on performance. These ideas may act as a frame of reference for the current thesis and by recognition of what has been considered in terms of emergent features of

well-being and their link to performance, these factors can be explored and expanded with an explicit exploration of this relationship.

## **2.6 Summary, Gaps in the literature and Aims of Current Research.**

Initially, this literature review addressed the historical origins of well-being, discussing the hedonic and eudaimonic viewpoints, the evolution of these philosophies, and their transition into the respective subjective and psychological well-being definitions. The review highlighted the ongoing deliberation of the definition of well-being and despite acceptance of its holistic and multi-dimensional characteristics, there yet remains to be a universally acknowledged and applied conceptualisation (Diener, 2009; Ryan & Deci, 2001; Dodge et al., 2012). Following the presentation of the conceptual background of the construct of well-being, a definition was proposed for the current thesis, combining influences from a number of sources, for a representation that reflects my understanding of the term.

The review then highlighted common well-being theories and models utilising a summary framework, which illustrated that well-being can be interpreted via its origins and categorised in line with different philosophical traditions or psychological frameworks (Lambert et al., 2015). The framework highlighted that well-being could be theorised in terms of its application within individual categories (e.g. SDT, Ryan & Deci, 2000), and between multiple categories for more holistic representations (e.g. PERMA, Seligman, 2011). It was concluded that to suggest well-being is a multifaceted construct would be an understatement, and therefore to gather a complete representation of well-being at minimal it would need to be approached both hedonically and eudaimonically. In addition to the theories and models of well-being, the current review summarised the most commonly applied quantitative well-being measures applied within sport psychology (e.g. PANAS, SWLS, Ryff's PWB scale, WEMWBS, and the Subjective Vitality Scale).

Subsequently, empirical research regarding well-being in sport was discussed. Initially the research regarding sport participation and well-being was critiqued, before appraising the general well-being experiences of competitive athletes. Finally, the literature regarding associations between well-being and sport performance was examined. There has been significant interest and coverage of the investigation into well-being in the sport domain, which may help inform researchers examining the well-being – performance relationship (e.g. methodologically, and the framing and targeting of questions). Despite this considerable body of research, the literature focusing on the interaction between well-being and sport performance is scarce. Along this line of inquiry, the research has attempted to provide evidence for the existence of a quantitative relationship (addressed in study 1). Qualitatively the research

regarding the relationship has not explicitly explored the association of well-being with performance. Irrespective of the amount of study conducted, literature making inferences about the relationship has suggested some intermediary variables that are considered to contribute to performance fluctuations indirectly through well-being including: relationships and social support (e.g. Douglas & Carless, 2006; Greenleaf et al., 2001), and life balance (e.g. Pink et al., 2015).

As there is a dearth of investigation focusing on the explicit exploration of the relationship between well-being and sport performance, there is much still to learn concerning this association. To add to the existing knowledge of this affiliation, supplementary research is needed. Accordingly, the overall purpose of this thesis was to examine perceptions of the relationship between well-being and sport performance in a competitive sport context, with consideration for factors associated with this link from both athletes' and key sports practitioners' perspectives. The thesis will address this purpose by:

- (f) Systematically examining the previous quantitative research regarding the relationship between well-being and sport performance for a quantifiable indication of the interaction (Study 1).
- (g) Examining elite athletes' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their experiences of the interaction, and factors considered influential within it (Study 2).
- (h) Examining sport practitioners' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their athlete clients' experiences of the interaction, and factors considered influential within it (Study 3).
- (i) Tracking elite athletes' narratives about the relationship between well-being and sport performance over time, identifying development of these narratives longitudinally, and highlighting factors considered influential within the interaction (Study 4).
- (j) Expanding available knowledge on well-being and sport performance in a competitive sport context (Studies 1, 2, 3 & 4)

To add to the existing knowledge on the well-being – performance relationship, answer the research questions, and help achieve the overall purpose of the thesis, a series of four studies has been devised. Study one of the current thesis focused on providing a picture of what type of relationship has emerged within previous quantitative research. Studies two and three

focused on athletes' and sports practitioners' perceptions and narratives about the relationship between well-being and sport performance respectively, according to their reflections on past experiences to date. Study four focused on athletes' perceptions and narratives about the relationship between well-being and sport performance as they developed over time. Knowledge on the relationship between well-being and sport performance will be enhanced by this series of studies as they implement methods of investigation (e.g. longitudinal, mixed-methods examination) and analysis (e.g. narratives) that are novel to this field of inquiry, and they assess the views of multiple sources who have some understanding of the relationship. This will contribute knowledge of factors associated with the relationship in a competitive sport context that at present we do not have an understanding of from former study.

A number of sources have contributed to the current thesis, which is significant as at present much of the research in this area (that closest to inquiry regarding the relationship) has predominantly examined athletes positions (e.g. Douglas & Carless, 2006), with a limited consideration of others who may be aware of, and have some influence upon, the relationship. These sources have knowledge of the relationship and associated factors from a personal perspective (i.e. athletes) and a supportive role (e.g. sport psychologists and performance lifestyle advisors). Though it is acknowledged that athlete perspectives are fundamental to understanding athletic experience, practitioners who interact with and manage the support of athletes may be able to offer supplementary insight that is currently unknown. It is possible that other people involved with athletes may be able to identify factors specific to how well athletes navigate the relationship. Previous research has called for future investigation of well-being to expand to include perspectives of staff other than members of National Sporting Organisations (NSOs) and Player Associations (PAs; Dunn, 2014). Study 3 was designed to add to the knowledge available on the relationship by exploring perceptions from two different types of sport science support staff (sport psychologists and performance lifestyle advisors).

Methodologically, at present, there is a lack of understanding as to how people describe and narrate this relationship, and their stories surrounding it. To my knowledge, no research effort has been made to explore athlete and practitioner perceptions of this relationship through the application of narrative methods. Brady and Grenville-Cleave (2017) have expressed the need for more qualitative methodologies in positive psychology focused sport research, to give recognition to the intricacies and chaotic nature of being human and for advanced appreciation of human experience. Lundqvist (2011) also calls for the pursuit of qualitative athlete well-being accounts to add depth and richer insight, which would support the quest for greater cognisance of well-being – performance relationships. To advance knowledge and methods of

presenting data in the area of the well-being and sport performance relationship, three out of the four parts of the thesis (studies two, three and four) have been developed with narrative analytic techniques and writing, to present the relationship stories of elite athletes and practitioners, and align with the research aims. Developing an understanding of the elite athlete well-being – performance relationship in more holistic terms requires research methodologies which value the knowledge and description of experience of those involved. To further advance knowledge, it is concluded therefore that it would be useful to study such stories, as human behaviours and actions are often reflected and informed by human perceptions (Smith & Sparkes, 2009b). The use of narratives could provide a more complete and comprehensive understanding of athletes' behaviours, along with the behaviours of the support network for the athlete, in accordance with their constructions of their lived world experiences regarding well-being and performance. The well-being and performance experience is likely rich, dynamic and context specific. If qualitative research approaches are applied to assess this, a better understanding of the intricacies of the narratives about relevant perceptions, experiences and interpretations may occur. This developed knowledge may inform an improved disposition to assist athletes and the appropriate adjustment of services to better meet their needs during times where these two experiences interact.

In addition, there is a deficiency in studies exploring the factors with potential to influence the relationship between well-being and sport performance longitudinally, with researchers favouring cross-sectional approaches (e.g. Douglas & Carless, 2006) or short-term observational methods (e.g. Pink et al., 2015). Using a longitudinal approach in study four of the thesis may have methodological benefits, because the longitudinal data will act as a source for the stimulation of discussion regarding events that have occurred over the study time period, prompting the recollection of certain noteworthy occurrences. Tracking athletes' experiences of this relationship via mixed methods may also provide a fuller understanding of the interaction as they go through different periods of training and competition intensity over different sporting seasons within the year, alongside periods of fluctuating demands in their personal lives.

In summary, four studies have been developed to enhance available knowledge about the perceptions of the relationship between well-being and sport performance. The series of studies are presented in the forthcoming chapters of the PhD. The next chapter presents a systematic review of the quantitative relationship between well-being and sport performance in competitive athletes.



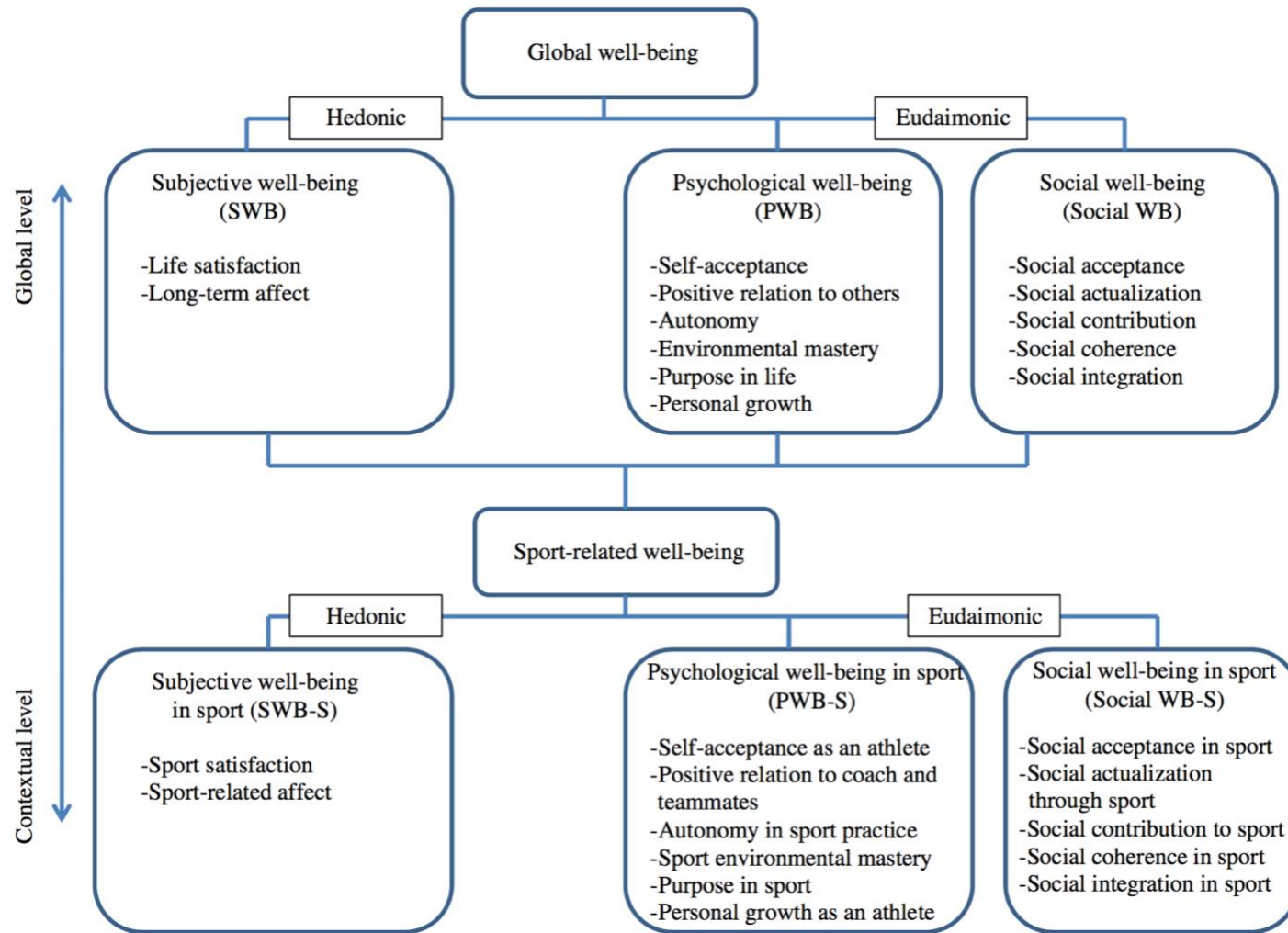


Figure 2.2. Lundqvist's (2011) integrated model of global well-being and context-specific well-being related to sport (modified and extended from the work of Page and Vella-Brodrick, 2009).

## **Chapter Three**

Study 1: A systematic review of the relationship between well-being and sport performance in competitive athletes

### 3.1 Introduction to Study One

The previous chapters introduced the current thesis and reviewed relevant literature in relation to the objectives of the research project. Following on from the general literature review, a systematic review was considered a valuable contribution to the thesis as it would allow for sensitisation with the research in preparation for the subsequent studies within the thesis. This review was also deemed beneficial to ascertain whether the previous research has identified the existence of a relationship between well-being and sport performance and what this relationship looks like.

There has been a notable increase in interest in the study of well-being within the context of competitive sports during the past decade (e.g. Lundqvist & Sandin, 2014). As a result, researchers have examined competitive athlete's well-being experiences, as discussed earlier within the literature review (e.g. Dunn, 2014; Tanimaru & Dos Santos, 2016; Verkooijen et al., 2012). Earlier reviews have also provided synthesis of well-being in sport research. For example, a narrative review published by Lundqvist (2011) was an important paper for the current study in terms of framing the literature regarding well-being in competitive sport and providing guidance for future research directions. Although Lundqvist (2011) adopted a specific definitional and conceptual focus, the state of research involving well-being in competitive sports was investigated and summarised, highlighting a considerable focus on well-being as the dependent variable within 17 studies published on this topic between 2003 and 2011. Much of the research in Lundqvist's review lacked in the application of a robust theoretical background and well-being was inconsistently represented through varied well-being measures. Since then, a systematic review by Agnew, Henderson and Woods (2017) considered factors contributing to well-being within elite sport, from a sample of 9 articles published between 2006 and 2016. The factors emerged under two main headings: (1) the sport environment, and (2) facing adversity. Additionally, significant investigation has occurred into individual subcomponents of well-being (for example, mood or emotion) and how they have an influence on or an association with performance (these are discussed later in this chapter). It has been over five years since Lundqvist (2011) published her review highlighting the predominant direction of the literature: that it is lacking in research incorporating well-being as the studies' independent variable. Although it is limited, we believe there has been some exploration of the link that well-being, as a whole concept, has with sport performance.

Anecdotally, there is a perception that well-being has some form of impact upon sport performance, which is sometimes positive and sometimes negative for the athlete. These perceptions are held by athletes and coaches, and in line with the recent development of

performance lifestyle consultancy, practitioners as well. The thrust of these anecdotal beliefs is that well-being incorporates, and can change according to, many different factors, such as mood, emotion, happiness, affect, stress, sleep, health, relationships, to name a few. Each, or a combination, of these factors have the potential to affect the focus, attention, or concentration of an athlete, causing disruption to the internal state, potentially both physical and psychological, that is desirable for their performance. Performance interference is implied because it is thought that if an athlete's well-being homeostasis is not present then they cannot apply their physical or psychological assets to their maximum effectiveness. It is thought that researchers have attempted to explore the accuracy of these beliefs by considering whether a relationship is present. To develop and consolidate understanding of the well-being – sport performance relationship it would be useful to establish what has previously been explored with regard to the quantitative relationship between well-being and sport performance, to begin to substantiate these anecdotal claims. An extended knowledge of the association between well-being and sport performance may inform athletes' expectations about the relationship, so they are better equipped to prepare for and manage the interaction.

The present review contributes to knowledge by offering, of which I am aware, the first systematic review methodology to consider and analyse studies within the topic area of the quantitative well-being and sport performance relationship. Identifying the current state of this area of work may lead to more meaningful and comprehensive knowledge contributions to guide future research into the well-being and performance relationship, as it is a somewhat under-explored field. The review aims to critically examine the well-being and sport performance literature to make sense of what it shows. To date researchers have predominantly published narrative reviews regarding well-being in sport (mentioned earlier in the literature review), which have focused generally on well-being in the sport domain, as opposed to the relationship of the construct with sport performance. Narrative approaches do not always present clear inclusion or exclusion criteria, details or transparency of search strategies, along with allowing subjective interpretation of studies, leaving opportunity for reviewer bias, meaning the clarity of adequate representation of the body of research is unknown (Tod, Edwards, McGuigan & Lovell, 2015). A method of minimising this bias is to adopt a systematic, more transparent technique of reviewing literature, which is the main aim of this review.

A key issue when carrying out a quantitative systematic literature review is identifying an appropriate methodology. The systematic review and the meta-analysis are among the most common approaches or methods applied. In systematic reviews, the investigators aim is to

identify, evaluate and synthesise research-based, empirical evidence and present this in an accessible and informative format. To achieve this, studies corresponding with pre-determined eligibility criteria are collated to answer specific research questions. Researchers adopt clear, systematic methods to minimise bias and to provide more reliable findings and conclusions than those in comparison with narrative methodologies. Key characteristics of the systematic review are: (1) clear objectives; (2) pre-defined eligibility criteria; (3) precise and reproducible methods; (4) clear and systematic literature search strategies; (5) appraisal of the identified research; (6) transparent and systematic synthesis and presentation of findings (Higgins & Green, 2011).

Systematic reviews allow researchers to develop a synthesis of, and subsequently use, the available evidence and appropriate theories to understand the latest developments regarding a particular topic of interest. Such reviews can potentially help develop future research directions for studies and intervention strategies, as the collaboration of studies can identify the current, up-to-date knowledge of the study topic as a guide for more meaningful knowledge contributions. Systematic reviews can also raise awareness of the range of research methods employed in the area of study, whilst offering an examination of the quality and rigour of the selected research. Assessing research rigour is an established component of systematic reviews and can assess the confidence that can be placed in the included research and the resulting implications (Higgins & Green, 2011). It is therefore useful to conduct a systematic review of well-being and sport performance studies in order to identify current knowledge of the study area, future research directions and practical implications for practitioners and sport organisations. The purpose of this chapter was to conduct a systematic review of the literature examining the quantitative relationship between well-being and sport performance. This study was considered to contribute to the PhD by identifying the relationship that has been established between well-being and sport performance within the research and to illuminate the inadequacies of the research. This review was also considered relevant as it could assist in providing a direction for the line of questions within subsequent studies of the thesis, ensuring appropriate avenues are explored. By assembling a quantitative representation of the relationship, the review would add to the PhD by providing a foundation from which to expand upon in later studies of the thesis. This basis of what is occurring quantitatively in the relationship could then be used to make comparisons and appraisals of what emerges qualitatively, to identify whether similarities or differences are reflected where richer methods are implemented to glean data. If the data allow, there will be consideration for the undertaking of a meta-analysis.

## 3.2 Method

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher, Liberati, Tetzlaff, & Altman, 2009) were used to inform the design, implementation, analysis, and reporting stages of this systematic review.

### 3.2.1 Search strategy and keywords

A systematic computerised search of 10 online electronic databases (SPORTDiscus, PsycINFO, PsycARTICLES, MEDLINE, ERIC, CINAHL Plus, Academic Search Complete, Web of Science, Scopus, and OpenGrey) was executed from inception to March 2017. These databases were selected and searched as they are large scientific databases with references to current and up-to-date scientific psychological and sport related journals from a wide range of countries. Most recent versions of databases were searched (where applicable).

To search the electronic databases a combination of search terms and keywords were adopted (see appendix A). Support was sought for discussion of search terms from library services and researchers experienced in conducting systematic reviews. Selected keywords were identified as directly associated with the topic under consideration and were from a combination of ‘well-being’ descriptors (Group 1) with different ‘sport-related’ (Group 2) and ‘performance-related’ descriptors (Group 3). The use of an additional thread to incorporate ‘questionnaire’ descriptors (Group 4) was employed within some of the search strategies. A number of different search strategies were pilot-tested to find the most appropriate combinations (see appendix A), with all strategies consisting of keywords from Group 1 AND Group 2 AND Group 3, and a number also included Group 4. The pilot-testing consisted of assessing the first 100 hits produced from each search strategy, when ordered by relevance, by the title and abstract for their potential inclusion. The strategy with the highest ratio of relevant hits, which included keywords from each of the four groups was selected (strategy 4). Keywords employed in the search strategies included synonyms of the search term constructs using Boolean operators. Wildcards were mainly used within any term incorporating the word ‘well-being’, and the truncation symbol was added to the most basic word stem for each key word if necessary to ensure all associated terms were included in the search. Search terms were entered in combination to effectively categorise the study hits. Certain search terms for example ‘mental health’ and ‘psychological health’ were included initially, however the majority of hits were irrelevant with a focus on clinical and medical research, therefore re-running the search more narrowly with these terms removed, allowed for the search to be more relevant. The term ‘physical’ was also removed for the final searches as this term similarly yielded large numbers of irrelevant clinical study hits. Studies were also identified manually to

supplement the database search, by (1) reviewing the reference lists of retrieved articles, (2) searching through major sport psychology journals, as well as any additional journals that yielded three or more retrieved articles, and included *The Sport Psychologist*, *The Journal of Sport & Exercise Psychology*, *The Journal of Applied Sport Psychology*, *The International Journal of Sport Psychology*, *The International Journal of Sport & Exercise Psychology*, *The International Review of Sport & Exercise Psychology*, *The Journal of Sport Psychology in Action*, *Psychology of Sport & Exercise*.

### **3.2.2 Eligibility criteria (Inclusion and Exclusion criteria)**

Studies were included in the review if they had quantitatively examined the relationship between well-being and sport performance. Studies had to (1) have measured well-being and performance quantitatively (qualitative studies were excluded), (2) have measured well-being using a questionnaire or scale, (3) have measured sport performance in terms of any sport-related motor behaviour (studies or reports that addressed ‘exercise’, ‘physical activity’, ‘physical education’, or ‘recreation’, and not sport, were excluded), (4) have been freely accessible prior to March 2017, (5) include participants of any competitive level from novice through to elite, and (6) be English language journal articles. Studies that reported appropriate data were considered eligible for inclusion even if the stated aim of the study was other than to examine the relationship between well-being and sport performance. There were no restrictions on geographic area, country or origin of studies providing the transcript was available in English. To maximize the scope of the review, no constraint was placed on the year of publication of potentially relevant studies; the search date (March 2017) formed the only temporal cut-off point. To assess the well-being questionnaires’ relevance for the current study, we were guided by the idea that the focus of the questionnaire covered well-being as a whole, or general concept. Papers were excluded based on measures where questionnaire items appeared to focus on subcomponents of well-being and did not provide an overall sense of well-being.

### **3.2.3 Study Selection**

Figure 3.1 provides a PRISMA diagram summary of the stages of study selection. Data management software was used to manage all records retrieved through the electronic database and manual searches. The software used was Endnote (while on university campus) and synced to Endnote Web elsewhere. All database hits were exported to Endnote and manually retrieved articles were filed into a Microsoft Excel spreadsheet. Endnote was employed to reduce duplicates of studies identified, this was then checked by removing any remaining duplicates by hand. All duplicates and excluded studies were kept in an excluded folder on endnote.

Retrieved studies were initially screened broadly based on titles and abstracts, with irrelevant studies being excluded on this basis. The full texts of the remaining, potentially eligible, studies were then assessed in detail for eligibility against the pre-determined inclusion/exclusion criteria. In the case of rejection, the reason for exclusion of full-text articles was recorded. Full text screening was conducted in a standardised manner using the inclusion/exclusion criteria. Any unclear papers were resolved through discussion between the author and an experienced researcher with considerable experience conducting systematic reviews. Consensus was obtained for all included articles, with any further unsuitable articles being removed at this stage. The number of 'hits' in each search database was recorded, and numbers of all studies identified were tracked in a flow chart to record numbers of included and excluded studies (Figure 3.1).

### **3.2.4 Assessment of Study Quality**

Each study was subject to a quality assessment, as proposed by the Cochrane guidelines for systematic reviews (Higgins & Green, 2011). All articles collected for review underwent a quality assessment procedure and were given a graded total quality score with respect to their methodological strength (Table 3.1). The process of evaluating the quality of each selected study in a systematic review allows for the comparison of studies to place emphasis on, and have more confidence in, those of better quality (Stroup et al., 2000). In the present study, the checklist of Timmer, Sutherland and Hilsden (2003) was applied to evaluate the quality of the quantitative studies, as it has good construct validity and has been used in other systematic reviews within the sport psychology field (Tod et al., 2015). This checklist contains 19 observable items and one additional source of points. From the checklist, we used 15 out of the 19 items, as four items were not relevant due to the review only including descriptive studies. As the quality tool selected was designed with some degree of flexibility, one additional item was added to allow for consideration of the well-being measure and the performance measure separately, resulting in 16 items in total. Each item could receive 2 (yes), 1 (partial), or 0 (no) points, allowing a maximum of 32 points for the observable items. A breakdown of the extent each study met each item criterion can be found in Table 3.2. Five extra points could be awarded based on study design (scored 1, 2, 3 or 4) and for the presence of randomisation (score 1 or 0). The maximum overall score was 37. A ratio summary score was calculated by dividing total score achieved by the maximum possible score for that article. Final quality ratings were between 0 and 1. Articles closer to 1 were better quality than articles closer to 0.

### **3.2.5 Data extraction and analysis**



Data was extracted from all potential studies for inclusion based on full text review. Information regarding participant characteristics, sample size, country of origin, study design and methodology, study aim, well-being questionnaire used, sport performance measure used, and the major outcomes in relation to well-being and sport performance were recorded in crib sheets. Details of data extraction were discussed with the author's supervisor. Once the database of full-text papers had been finalised, content was collaborated into a summary table listing the papers alphabetically according to first author, with each row representing a study and each column representing an individual study characteristic. The table focused on sample characteristics, research design, measures of both well-being and sport performance, and correlates of the relationship. The purpose for focus on these features was (a) to present features of sample populations to assist academics with the identification of sampling gaps, (b) to identify methodological details about the studies to aid researchers' recognition of common methods to facilitate the proposal of better methods in the future, (c) to highlight the range of recognised measures alongside those that were non-validated to bring to researchers' awareness potential causes for variation in results, and (d) to analyse the strength and direction of the relationship, to identify some evidence to supplement anecdotal understandings.

### **3.3 Results**

#### **3.3.1 General findings**

The systematic search generated a limited number of relevant research papers. A total of seven studies met the inclusion criteria for review. The appropriate studies included six published journal articles from the *European Journal of Sport Science*, *Perceptual and Motor Skills*, the *Portuguese Journal of Sport Sciences*, and the *International Journal of Sports Physiology and Performance*, *Sport Science Review* and one Unpublished MSc Thesis conducted in the USA. Among the seven studies, three were published (or completed) between 2000 and 2010, with the remaining four published between 2010 and 2015. Table 3.1 provides a detailed overview of this search with a summary of the key findings from each study.

#### **3.3.2 Sample characteristics**

The total number of participants across all of the studies was 215 and the range of sample sizes was between 14 and 67. There was a variety of demographics regarding the participants involved in the studies. A range of age groups (aged between 12 to 32 years) were examined across six of the studies, one study was done with athletes between 12 and 18 years, in two studies athletes were aged between 17 and 24 years, and three studies only reported a mean age of 21.9, 23 and 26.5 years for their participants. One study did not report the age of the participants.

Across the seven studies, two contained both genders, two contained female athletes only, two with only male athletes, and gender was unspecified in one study. Of the six studies that determined the gender of their participants a total of 82 were male and 66 were female. The gender was unknown for a total of 67 participants.

The competitive level of athletes ranged across the seven studies, including national and college level ( $n = 81$ ), “Olympic track” level ( $n = 14$ ), elite level ( $n = 84$ ), and professional ( $n = 15$ ). All studies involved athletes of either relatively high, or *the* highest competitive level.

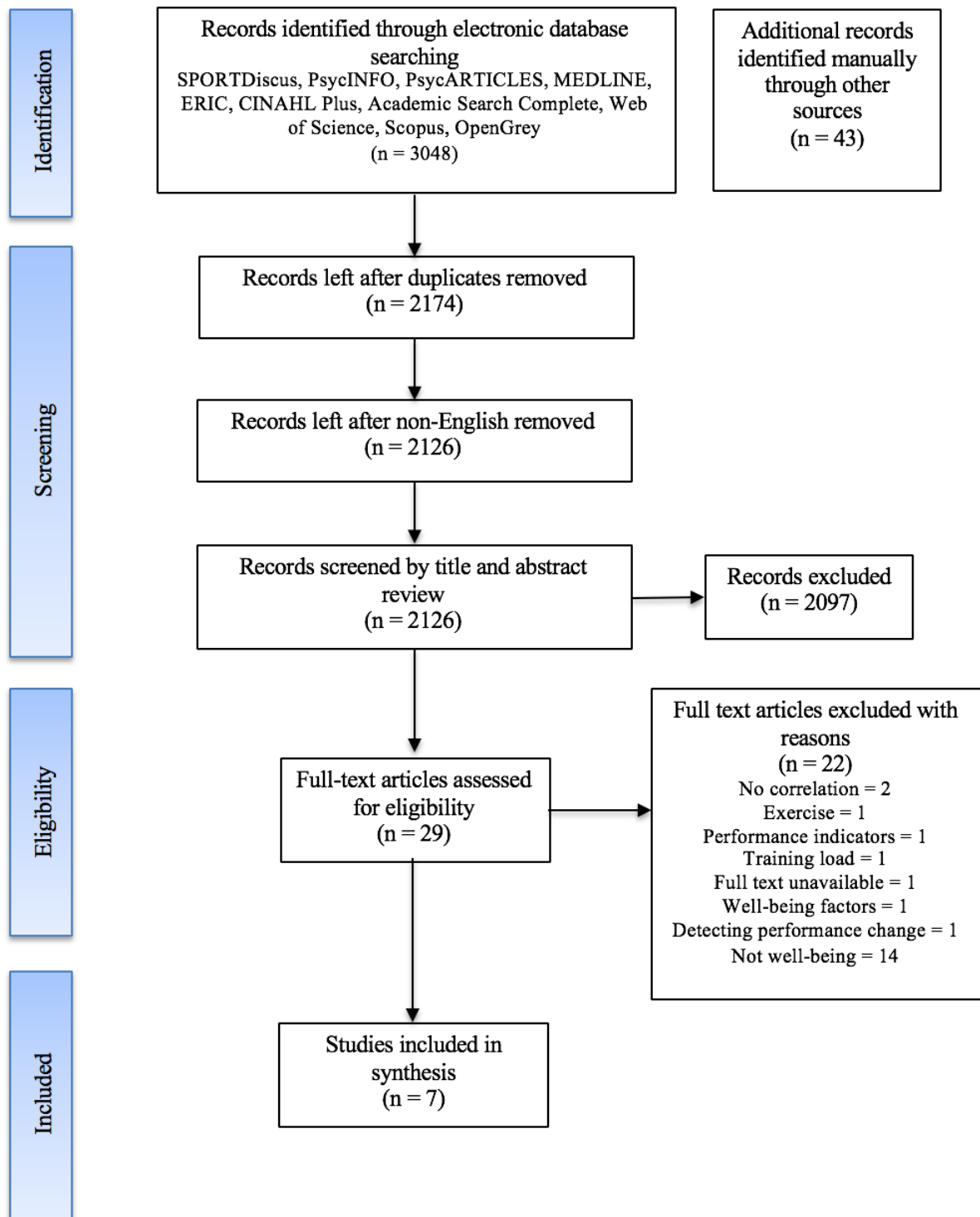


Figure 3.1. Summary of the stages of the selection of studies flow chart.

Table 3.1 *Study characteristics and correlations regarding the research on the relationship between well-being and sport performance*

Author (s)	Year	Sample Characteristics						Design	WB measure	Perf. measure	Main findings on WB + Perf.	Qual. Score
		Size	Age	Gender	Level	Sport	Culture					
Filho et al.	2015	67	$M_{\text{age}} = 21.90$  $SD = 1.60$	Und.	Elite	Cycling	Italy, Netherlands, Switzerland, USA	Long. Survey	<i>General Well-being</i> scale of the <i>REST-Q Sport Questionnaire</i>	Subj. Perf. Rating on Likert scale = 1 (extremely poor) - 10 (excellent)	General Well-being ( $\beta = -.26$ , $p = .04$ ) was found to significantly predict 21% of the variance in subjective performance for Stage 1 of a multi-stage cycling competition.	0.73
Hogarth et al.	2015	15	$23.0 \pm 2.5$ years	Male	Nat.	Tag football	Australia	Long. Obs. Survey	Self-designed SWB questionnaire	Vertical jump test	There was a moderate association between changes in perceived well-being and vertical jump ( $r = 0.46$ ).	0.76
Kalda et al.	2004	21	17-24 years	8 Male 13 Female	Nat. & Coll.	Sprinting & Long/High jump	Estonia	Long. Survey	<i>General Well-being</i> scale of the Estonian version of <i>REST-Q Sport Questionnaire</i>	IAAF points values/ results	Results during the Outdoor Champs correlated significantly with the General Well-being ( $r = .63$ )	0.70
Kavaliauskas	2010	15	$26.5 \pm 5.8$ years	Male	Pro.	Rugby Union	UK	Long. Survey	Self-designed well-being questionnaire	Body mass jump squat	Team total well-being related to muscular performance (specifically peak power output) ( $r = 0.18$ ).	0.65
Liberal et al.	2014	14	12-18 years	Female	Cat. 6 - 10 of Olympic track	Gymnastics	Spain	Long. Survey	Spanish version of <i>Ryff's Scale of Psychological Well-being</i>	Major Comp. results of season	There was no significant relationship between sport perf. and psychological well-being ( $r = -.093$ ) *	0.70

Mara et al.	2015	17	Und.	Female	Elite	Soccer	Australia	Long. Obs. Survey	Club designed <i>Player Well-being Questionnaire</i>	<i>Physical testing variables = YYIR-2 Score. 5m, 15m + 25m Acc. &amp; sprint speed</i>	No correlation was found between WB and physical testing variables across season. <i>r</i> not given.  YYIR2 perf. and player WB remained stable (no changes) across training phases within the season.	0.70
Masters	2009	66	18-24 years  <i>M<sub>age</sub> = 20</i>	44 Male 22 Female	College Division I	Ice-hockey, Baseball, Softball, Swimming	USA	Long. Survey	SWLS	Personal Perf. Assessment	Life satisfaction related to player perf. ( $p < .05$ ) at assessment point 1. College athletes who reported higher scores for player perf. reported higher SWLS scores ( $r = 0.32$ )	0.62

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*Note.* WB = Well-being – Perf. = Performance – SWB = Subjective Well-being – Qual. = Quality – Und. = Undetermined – Nat. = National – Coll. = College – Pro. = Professional – Cat. = Category – Comp. = Competition – Acc. = Acceleration – Subj. = Subjective – Long. = Longitudinal – Obs. = Observational. IAAF = International Amateur Athletic Federation, YYIR2 = Yo-Yo Intermittent Recovery Test, Satisfaction with Life Scale (SWLS), \**r* score was calculated manually as an average of the 6 subscales as authors provided scores for individual subscales only.

The types of sports studied within the research have varied. Researchers within three studies examined purely team sports (soccer, rugby, tag-football). Three studies examined purely individual sports (cycling, sprinting, long jump, high jump and gymnastics). One study examined a combination of team and individual sports (ice-hockey, baseball, softball and swimming).

All of the included studies were conducted in Western countries. The study samples included have originated from a range of different countries. Two studies had a number of participants from the USA amongst other European countries such as Italy, the Netherlands and Switzerland. Of the remaining studies, two had European participants of Estonian or Spanish origin, two had Australian participants, and one had participants from the UK. None of the studies discussed or specified the ethnicity of the participants.

### **3.3.3 Research design**

All included studies were descriptive. Investigators used longitudinal designs in all seven of the studies with repeated collection of data at different time points. Different lengths of time occurred between data collection points including: across a season (Kavaliauskas, 2010; Liberal, López-de-la-Illave, Pérez-Llantada & Garcia-Mas, 2014; Mara, Thompson, Pumpa & Ball, 2015); across an academic semester (Masters, 2009); at two individual successive time-points such as the first and final stage of a multi-stage cycling competition with a 10-day interval (Filho et al., 2015) and both indoor and outdoor athletic championships with a five-month interval (Kalda, Jürimäe & Jürimäe, 2004); and at three consecutive time-points within the same day (Hogarth, Burkett & McKean, 2015). Two of the studies collected measurements of well-being in-line with two competition performances (Filho et al., 2015; Kalda et al., 2004). One study measured well-being prior to the start of the season and compared this with a mean difference of performance between the previous and current season as an indicator of performance change (Liberal et al., 2014). These studies may have had longitudinal designs but only reported the relationship on one occasion. The remaining studies took repeated measurements of well-being either daily (Mara et al., 2015), weekly (Kavaliauskas, 2010), fortnightly (Masters, 2009), or repeatedly within one day (Hogarth et al., 2015). Performance was repeatedly measured either at four time-points across the season (Mara et al., 2015), weekly (Kavaliauskas, 2010), fortnightly across the academic semester (Masters, 2009), or repeatedly within one day (Hogarth et al., 2015).

### **3.3.4 Measures**

A range of different measures were used across the studies. All of the studies collected data regarding well-being via questionnaires. The questionnaires used to collect well-being

data can be divided into two categories: (a) validated questionnaires and (b) self-designed questionnaires.

Three different validated questionnaires were implemented across four of the studies and three studies used a self- or club-designed questionnaire for collection of well-being information. The most frequently used well-being related questionnaire, employed in two studies, was the General Well-being subscale of the REST-Q Sport Questionnaire (Kellmann & Kallus, 2001), with an Estonian version used for one of these studies. The other validated questionnaires used were the Spanish version of Ryff's (1989) Scale of Psychological Well-being, and the Satisfaction with Life Scale (Diener et al., 1985).

Performance data were collected via nine different measures across the seven studies. The measures used to collect data regarding performance can be divided into two categories: (a) objective measures and (b) subjective measures. Performance was measured objectively by points or scores athletes received during competitions in two of the studies, jump height in one study, peak power output (PPO) in one study, and by distance achieved in the Yo-Yo Intermittent Recovery Test as well as different sprint distance times in one of the studies (this study incorporated more than one measure of performance within what was referred to as 'physical testing variables'; Mara et al., 2015). These variables were grouped and considered together in relation to their association with well-being. Performance was measured via the athlete's own subjective Likert scale rating in the remaining two studies. Performance was measured in terms of the technical performance of the identified sport for the majority of the studies, with either objective competition scores/points or subjective ratings. One study measured performance retrospectively via subjective ratings of performance over a two-week period rather than actual competition performance (Masters, 2009). Three studies measured performance in terms of physical testing variables as opposed to actual technical performance of the sport (Kavaliuskas, 2010; Hogarth et al., 2015; Mara et al., 2015).

### **3.3.5 Well-being and Performance relationship**

The relationship between well-being and performance was explored with a range of different methods, samples, statistical tests and units of analysis. The results from the seven studies provide mixed findings about the relationship, with only three of the studies finding a significant correlation (Filho et al., 2015; Kalda et al., 2004; Masters, 2009). There was a significant weak, negative relationship ( $\beta = -.26$ ,  $p = .04$ ) between well-being and subjective performance in a sample of elite cyclists (Filho et al., 2015). A significant, moderate to strong, positive correlation ( $r = .63$ ) was found between the well-being and performance (in the outdoor championships) of Estonian track and field athletes (Kalda et al., 2004). A significant,

weak to moderate, positive correlation ( $r = .32$ ) was reported between well-being and subjective personal performance for college athletes across multiple sports (Masters, 2009).

Other studies reported relationship interpretations but did not report significance for these associations (Liberal et al., 2014; Hogarth et al., 2015; Kavaliauskas, 2010). There was a weak, negative relationship ( $r = -.093$ ) between psychological well-being and gymnastics competition performance, (Liberal et al., 2014). This article was a study of the relationship between well-being and change in performance. Liberal et al. (2014) provided Pearson correlation subscale values individually, so the  $r$  value (shown above) for this study was calculated for this review by collaborating the six subscales together and extracting an average to avoid double counting and the study having undue weighting in the interpretation of results. A moderate positive association ( $r = .46$ ) was found between changes in perceived well-being and vertical jump performance of Australian Tag-football players, and the lack of significance probably reflecting a small sample size of 15 (Hogarth et al., 2015). A weak positive relationship ( $r = .18$ ) was found between team total well-being and muscular performance of professional Rugby Union players within the United Kingdom (Kavaliauskas, 2010). The latter two studies (Hogarth et al., 2015; Kavaliauskas, 2010) did not report these correlations within their publications, however calculations of these values were obtained through personal contact with the authors in order to report these findings in the current study.

The negative correlations of the above studies ( $n = 2$ ) ranged from  $-.093$  to  $-.26$ . The positive correlations of the above studies ( $n = 4$ ) ranged from  $.18$  to  $.63$ . Mara et al. (2015) reported that no significant correlation was found between well-being and physical testing variables across an elite female soccer season. They did not report what the actual correlation was. The most common analysis technique used within the selected studies was correlation coefficients (Hogarth et al., 2015; Kalda et al., 2004; Kavaliauskas, 2010; Liberal et al., 2014; Mara et al., 2015; Masters, 2009). Other types of analysis used to calculate the relationship between well-being and performance were multiple regression (Filho et al., 2015).

### **3.3.6 Quality of included studies**

The methodological quality of all eligible studies was assessed through the Timmer et al., (2003) checklist. Fulfilment of quality criteria for each study is presented in Table 3.2. The mean quality score of the included studies was 0.69/1, ranging from 0.62 to 0.76, demonstrating moderate study quality within the eligible sample of research papers. Some variation was present within the level of detail of the sample characteristics. The majority of studies ( $n = 5$ ) scored highly, and two of the studies only received a partial score due to a lack of information about either the gender or age of the sample. Two studies offered insufficient detail regarding



the method of subject selection. There were also some discrepancies in the quality of the outcome measures with two studies using subjective performance measures and three studies using non-validated well-being questionnaires, resulting in partial scores for quality. Only one of the studies attempted to account for confounding, receiving a partial point, while the rest of the studies did not meet the criteria for confounding. None of the studies received full marks for adequate sample size, with all (except two that highlighted within the limitations) receiving no points as no justification was provided. None of the studies provided power calculations and only one reported confidence limits. Only three of the studies reported exact p values, with the other four studies receiving no score for these criteria as they did not show precise values. Only two of the studies received points for attrition as the remaining five failed to mention whether attrition occurred within their research.

### **3.3.7 Results of additional well-being and performance research**

As a result of the systematic searches, a small number of other studies emerged that measured both the variables of well-being and sport performance, however the authors did not examine a relationship between these variables numerically. The lack of demonstration to attempt to calculate a correlational relationship within these studies resulted in them not being included in the final sample. Findings of these studies will be discussed briefly, and interpretations made to suggest what the results may indicate. Inclusion of these additional articles was considered useful to provide further example of limited research in this area.

May, Veach, Reed and Griffey (1985) studied the psychological health, injury and athletic performance among 73 athletes on the US Alpine Ski team through surveys. The well-being measure used was the General Well-being Scale (1977). Performance was assessed via objective performance measures including International Ski Federation points and World Cup points earned, along with subjective performance measures including athlete perceptions of athletic performance and a team administrator's perceptions of athlete's performance and achieved athletic potential. Associations between well-being and sport performance were assessed using one-way analysis of variance, based on performance level according to team level, however no numerical data was provided regarding these correlations. Although no quantitative relationship was reported, links were suggested by the authors between general well-being and performance levels or team status through statements in the results. Postulations were made suggesting psychosocial variables may affect performance. Higher well-being scores emerged for: athletes on higher ranked teams (A and B teams rather than junior or developing athletes), and athletes maintaining or moving up in performance level, however these scores were not reported.

Table 3.2 *Fulfilment of quality criteria for individual included studies.*

Quality Criteria	Study						
	Filho et al., (2015)	Hogarth et al., (2015)	Kalda et al., (2004)	Kavaliauskas (2010)	Liberal et al., (2014)	Mara et al., (2015)	Masters (2009)
Study design	4	4	4	4	4	4	3
Description of objective	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Appropriate design	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Subject characteristics	Partial	Yes	Yes	Yes	Yes	Partial	Yes
Appropriate subjects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject selection	Yes	Yes	Partial	Yes	Partial	Yes	Yes
Outcome measure WB	Yes	Partial	Yes	Partial	Yes	Partial	Yes
Outcome measure perf.	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Confounding	Partial	No	No	No	No	No	No
Sample size	No	Partial	No	No	No	No	Partial
Power calc./CI reported	No	Yes	No	No	No	No	No
Appropriate Statistical analyses	Yes	Yes	Yes	Partial	Yes	Yes	Partial
Statistical tests stated	Yes	Yes	Yes	Partial	Yes	Yes	Yes
Exact p value/CI	Yes	No	No	No	Yes	Yes	No
Attrition	No	No	Yes	Yes	No	No	No
Detail of results	Yes	Yes	Yes	Partial	Yes	Yes	Yes
Results support conclusions	Yes	Yes	Partial	Yes	Partial	Yes	Yes

■ Yes
 ■ Partial
 ■ No

Noon, James, Clarke, Akubat and Thake (2015) examined perceptions of well-being and physical performance in 14 English elite youth academy football players across a season. As the season progressed, well-being perceptions moderately to largely deteriorated ( $P < 0.05$ ;  $\eta^2_p = 0.30\text{--}0.53$ ). Neuromuscular performance showed evidence of moderate decrements, namely in 30 m sprint performance ( $P < 0.05$ ;  $\eta^2_p = 0.48$ ) and small decreases in both counter-movement jump ( $P > 0.05$ ;  $\eta^2_p = 0.18$ ) and arrowhead agility ( $P < 0.05$ ;  $\eta^2_p = 0.24$ ) performances. Large improvements in endurance performance were found, specifically in Yo-Yo intermittent recovery test performance ( $P < 0.05$ ;  $\eta^2_p = 0.93$ ). Associations between these well-being and physical performance measures were not calculated. Subjective interpretation of the results implies that neuromuscular performance decrease occurred alongside well-being decrease. Decreases in well-being occurred alongside increases in endurance performance. These results echo the mixed findings of the seven studies accepted in the review.

### **3.3.8 Parallel fields of study**

A significant amount of research has been conducted within comparable areas of study and will be drawn upon to present our current understanding of these related areas. A large body of literature exists that has examined variables that are parallel to, subcomponents of, or contributors to well-being, and their relationship with performance. Variables that will be considered within this review include emotion, affect and mood due to their proximity and resemblance with well-being. These variables are similar to well-being in the sense that they: are temporary and transient in response with personal experiences; relate to feelings; and can influence perspectives and behaviours. For example, emotions have the potential to affect a person's well-being and well-being has the potential to influence emotions. Such variables have often been used interchangeably when discussing well-being. Illustrating the substitution of terms, research has previously used positive emotions, among other factors, as an assessment of well-being (Blanchard et al., 2009). To be clear, the definitions selected to represent these constructs are only examples, as a full explanation of the many, constantly developing definitions of each of these terms is beyond the scope of this review. The definitions presented are also not necessarily those utilised within the research discussed, and it is likely that each study will have determined the construct in different ways, with variations in measures used. Examples of their definitions are presented below:

Mood: *“A set of feelings, ephemeral in nature, varying in intensity and duration, and usually involving more than one emotion.”* (Lane & Terry, 2000, p.16)

Emotion: *“An emotion is a reaction to a stimulus event (either actual or imagined). It involves change in the viscera and musculature of the person, is experienced subjectively in characteristic ways, is expressed through such means as facial changes and action tendencies and may mediate and energize subsequent behaviours.”* (Deci, 1980, p. 85)

Affect: *“The experience of valence, a subjective sense of positivity or negativity arising from an experience.”* (Carver, 2003, p. 242). McCarthy (2011) discussed that some researchers interchange ‘emotion’ with ‘affect’ and ‘feeling’ while others differentiate these terms from each other.

This review will now consider the key conclusions of these other focal areas of study to give an indication as to the consensus of the results within these areas and assist in interpreting the research on the relationship between well-being and sport performance within the wider literature base.

**3.3.8.1 Mood and sport performance.** In a review article of the profile of mood states (POMS) and athletic performance, Beedie, Terry and Lane (2000) conducted two meta-analyses. Considering only the meta-analyses with the removal of studies focusing on level of achievement or lacking in appropriate methods, and with attention towards studies on the relationship between pre-competition mood and subsequent performance, the effects of mood on performance were moderate. Effects for individual mood states followed the direction associated with an iceberg profile (Morgan, 1985). Effects were moderate for confusion, vigor, and depression, small for anger and tension, and small for fatigue. Vigour was associated with better performance. Confusion, fatigue and depression were associated with poorer performance. Some variation occurred across studies in the direction of mood-performance relationships for individual mood states. Higher scores of anger and tension were associated with facilitated performance in some studies and debilitated performances in other studies. Specifically, effects were larger in short duration sports, open skill sports, and where self-referenced criteria were used to judge performance (i.e. goals or personal bests). These findings suggested that pre-competition mood profiles can be predictors of performance when certain conditions are met.

Outcomes of mood and performance research have consistently established significant effects between the two constructs (Prapavessis, 2000). Lane (2007) discussed that pleasant moods have been linked with good performance but also seen as unhelpful to performance, and unpleasant moods have tended to be linked with poor performance, although at times have facilitated performance. The findings have been both mixed and inconclusive, with a combination of results occurring.

**3.3.8.2 Emotion/affect and sport performance.** This section of the review will consider a number of contemporary studies examining emotion or affect and sport performance to indicate the general findings across the literature. The following articles reveal how the emotion – performance research displays similar conclusions to the mood – performance research with regards the mixed outcomes. In some studies, positive emotions have been associated with better performances and negative emotions with poorer performances: for example, happiness was a significant predictor of successful basketball game involvement while anger and embarrassment negatively predicted basketball performance (Uphill, Groom & Jones, 2014); hope produced faster soccer-related reaction times in a cognitive computer task (Woodman et al., 2009); sprint performance was significantly faster in the happiness condition when compared to neutral-emotion or anxiety conditions (Rathschlag & Memmert, 2015); endurance performance on a cycle ergometer was significantly improved following subliminal priming with happy faces compared to when primed with sad faces (Blanchfield, Hardy & Marcora, 2014). Positive affect has also been associated with successful performance in elite climbing (Sanchez et al., 2010). Other research has shown conflicting results however, whereby performance was not enhanced by positive emotions or reduced by negative emotions. For example, anger enhanced physical performance involving gross muscular force and happiness made no difference to the performance of a cognitive task in comparison with anger and neutral-emotion (Woodman et al., 2009); both anger and happiness significantly enhanced physical performance relating to finger musculature force, height of a counter-movement jump (CMJ), and ball-throw velocity when compared with anxiety, sadness and neutral emotions (Rathschlag & Memmert, 2013); pentathletes had better performance outcomes with higher levels of anger and poorer performance outcomes with higher levels of friendliness (Samekko & Guskowska, 2016).

**3.3.8.3 Well-being variables and performance in non-sport domains.** This section of the review will briefly discuss some of the research regarding performance in other fields in relation to a range of subcomponents of well-being. The inclusion of this literature here was to demonstrate how aspects of well-being have been considered in terms of their relation to other forms of performance. Despite a considerable representation of positive well-being variables being linked to positive outcomes in these other domains, this type of interaction was not unanimous. In an early review, Cropanzano and Wright (2001) indicated ambiguous findings regarding the happy-productive worker thesis. They suggested that this conflicting support could be a result of the multitude of ways that happiness has been operationalised across the

research. Other research has provided support for the positive relationship between certain well-being variables and different types of performance which will be discussed below.

Allen and McCarthy's (2016) review presented evidence of happiness preceding and being associated with success in multiple life domains. Research indicated the existence of bidirectional associations between happiness and work-based performances (occupational success), that is happiness led to work success and positive work experiences increased happiness (Lyubomirsky, King, & Diener, 2005). An average positive correlation of .14 was found between life satisfaction and job performance in a more recent meta-analysis (Erdogan, Bauer, Truxillo & Mansfield, 2012). A survey study also indicated a significant relationship between objective student academic performance measures and overall life satisfaction, with those students with higher levels of overall life satisfaction generally performing better academically than those with lower levels (Rode et al., 2005). In a longitudinal descriptive study, Tsai, Chen and Liu (2007) discovered that employee positive moods predicted task performance indirectly, through both interpersonal (helping other coworkers and coworker helping and support) and motivational (self-efficacy and task persistence) processes. A meta-analysis of 57 studies conducted by Kaplan, Bradley, Luchman and Haynes (2009) showed support for negative affect having detrimental effects on task performance within employment and increased negative outcomes such as counterproductive work behaviours. Findings also indicated that positive affect was positively related to task performance within employment. It seems that with both mood, emotion/affect and non-sport domain performance, the results are mixed, and this is paralleled in the current systematic review.

### **3.4 Discussion**

The purpose of this systematic review was to examine the research exploring the quantitative relationship between well-being and sport performance. A total of seven studies met the inclusion criteria for this systematic literature review, revealing first and foremost a considerable absence of research on this topic area. Although the well-being research within sport in general is a steadily growing field, literature on the topic of the existence of a well-being and sport performance relationship is scarce. Overall, the results of the seven investigations demonstrate mixed support for a relationship with inconclusive and varied evidence. A lack of consistency in the types of well-being and performance assessments administered, the sports involved, and the types of study design and methodology across the seven investigations makes a consensus statement regarding the relationship between well-being and sport performance difficult. Additional literature areas were explored to illuminate

the general consensus of their results, make comparisons among the major findings and position the well-being – performance research within wider fields of work.

The current review advances the literature firstly by providing the first systematic review of the quantitative relationship between well-being and sport performance. The current systematic review advances on the findings of Lundqvist (2011) firstly by examining research focused solely on the existence of a relationship between well-being and sport performance, as opposed to studying well-being from a variety of different perspectives, or other purposes such as factors considered to contribute to elite athletes' well-being (Agnew et al., 2017). Secondly, by seeking to synthesise research where well-being is not considered as a dependent variable, by generally summarising the state of research that considers well-being as a construct that may influence sport performance. The research was descriptive, so we cannot imply causality i.e. whether well-being influenced performance, or performance influenced well-being, or whether it was a spurious relationship.

Although the expected trend, anecdotally speaking, of the well-being and performance relationship is that of a straightforward one, where higher well-being would yield better performance (and vice versa), the reality of the research contradicts this notion and suggests the relationship might be far more complex. A combination of positive, negative, moderate-to-strong, weak, significant and non-significant correlations, and no presence of a correlation, was found within the included studies. The additional research including well-being and performance variables offers similar findings to the studies included in this review (e.g. May et al., 1985; Noon et al., 2015). Although a correlational relationship was unexamined by these researchers, each study indicated differing levels of well-being and differing levels of performance within a time-period. Changes in aspects of performance and well-being were in different directions, and there were instances where the possible interaction of well-being and performance coincided and instances where it did not. Unfortunately, further examination of this relationship was not presented within this sample of the literature. Based on these informal and unsubstantiated observations, the additional well-being and performance research provides us with some more evidence of a multifaceted and complicated relationship, which remains unclear when explored through these approaches. The current review advances knowledge by revealing the varied extent of interactions that have occurred between well-being and performance in the research. These mixed findings are unsurprising and may be explained through methodological or theoretical reasons. These explanations will now be considered.

### **3.4.1 Methodological considerations**

The identified articles may have provided inconsistent conclusions regarding the existence and state of the relationship because of the small quantity of papers and variation in: overall quality, construct measures and definitions, and study design.

**3.4.1.1 Limited research.** Firstly, the review findings indicate the small sample of studies corresponding with the inclusion criteria collectively offer little evidence with which to formulate any clear conclusions on. It would be unlikely to find significant similarities across such a limited amount of research, resulting in a lack of confidence in the findings and an inability to make confident inferences about the well-being – performance relationship. This systematic review makes further knowledge contributions by highlighting that the understanding of this relationship remains limited due to a lack of research prevalence towards exploring and establishing a clear indication of the relationship characteristics. Understanding may be enhanced, initially, by simply conducting some more research regarding correlational associations between the constructs of well-being and sport performance.

**3.4.1.2 Research quality.** Additionally, it is possible that the results are mixed because of a lack of research of sufficient quality to actually identify a consistent relationship. None of the included studies fully satisfied all quality assessment criteria. The articles ranged from scores of between 0.62 and 0.76, which appears to be of moderate quality. To advance knowledge it must be considered by which way these studies fall short in terms of quality markers. Of the studies included, few showed methodological excellence and the range of measures used varied in quality and level of detail.

**3.4.1.2.1 Quality of the well-being research instruments.** The majority of articles used arguably poor measures of well-being, such as single subscales within questionnaires of a broader topic. Specifically, although a validated measure, the general well-being subscale of the REST-Q (Kellmann & Kallus, 2001) does not capture any particular depth or detail about the well-being of the participants, as the primary focus of the measure is to identify recovery and stress states. As a result, this questionnaire does not provide an intricate reflection of well-being. Self-designed (by clubs) player well-being questionnaires are also examples of measures lacking quality control evidence used within the selected articles. Self-designed measures are deficient in various ways, such as their lack of evidence for validity and reliability. They are often designed based on what the particular club is interested in finding out, or what previous research has indicated as most useful, and not necessarily grounded accurately in the theory for the particular construct being assessed. For example, club player well-being questionnaires often target the measure of factors which assess physical strain and load, such as fatigue and muscles soreness, which are loosely based under the heading of well-being (Noon et al., 2015).



These measures that may be more inclined to be interpreted as measures of *wellness* have their merits, in terms of the cheap, quick and simple application for repeated completion by athletes who have strict and strenuous training schedules (Saw, Main & Gustin, 2015). However, in reality, they are not representative of the construct of well-being, are simplistic, and fail to be inclusive of the multitude of dimensions (e.g. psychological factors) contributing to well-being. Broader measures may better accommodate for the differing individual circumstances and responses occurring for athletes.

**3.4.1.3 Inconsistency in construct measures and definitions.** Higher quality measures, such as Ryff's Psychological well-being scale and the Satisfaction with Life Scale (Diener et al., 1985), implemented in two of the included articles, offer more thorough and theoretically grounded examination of well-being. Although these questionnaires demonstrate consistency in that they are theoretically supported, they assess different elements of global well-being: psychological well-being and subjective well-being respectively. The variation in the type of well-being that has been examined across the selected research may also have contributed to the mixed results across the selected articles. Assessing well-being based on certain subjective, hedonic features in comparison to a multitude of eudaimonic dimensions may convey different well-being outcomes anyway due to their consideration for relatively different dimensions within a person's life.

The diversity of measures used may account for the variety in the results, and the findings highlight parallels to what Lundqvist's (2011) review revealed. Research regarding the well-being and performance relationship also seems to have ambiguity when it comes to their well-being conceptualisations. Perhaps because the literature still fails to offer a widely accepted, universal definition of well-being (Dodge et al., 2012), researchers are left ill-guided in their well-being conceptualisation and consistency when applying the "best" measure for their research. With a diverse range of labels to describe the same construct, inconsistencies in terminology, and no real justification as to the measures selected, consensus among study findings and provision of sound conclusions to develop our knowledge base are a challenge. Echoing Lundqvist (2011), further clarification and standardisation is still needed regarding explicitly defined and representative measures of well-being to allow progress in this field of research. Future research should look to include well-being questionnaires that are validated, theoretically grounded, multiple-item, and indisputably characteristic of well-being. A balance of breadth and a small number of items, as well as established measures, would be key to sustain regular and accurate monitoring and assessment of well-being (Gustin, Meyer & Robinson, 2013).

The lack of uniformity in the review findings may also have been as a result of the difference in measures used for sport performance. Objective measures, such as competition results or accumulated points values based on competition placings, provide a performance measure that is accurate in terms of technical execution and outcome. Purely objective measures cannot account for particular myriad factors that subjective measures can incorporate such as: the achievement of personal goals within a performance; performing well considering additional factors such as environmental conditions for instance; and reflections on how the performance felt. Subjective measures do however reflect the biases of the person providing the information but allow for the opportunity of a greater variation in interpretations with regards to a *textbook* performance. The significance of these biases is context dependent and relates to what is considered situationally important. The majority of included studies reported either objective or subjective performance indicators. Two studies reported performance subjectively, with one of these also correlating this with the participants final objective ranking to demonstrate that the constructs do not always correspond. Through identifying the benefits and drawbacks of each, it is clear that the range of types of performance measure used across the articles in this review means it is difficult to combine the results, as we cannot account for the potential differences caused by the manner in which performance was measured. There did not appear to be any significant differences between the use of an objective or a subjective performance evaluation tool, however there was not enough studies to determine this conclusion in any meaningful way. Future research could look to include both an objective and subjective measure of performance when examining the well-being relationship with performance. Multiple measures would allow exploration of whether consensus occurs between both types of measure to assess their reliability and applicability, and we could make more well-informed conclusions between different studies. Future research could also look to implement standardised performance measures consistently across research to attempt to obtain uniformity within the literature.

**3.4.1.4 Research design variation.** Further postulations for the inconsistent findings could be attributed to the amount of design variation within the selected articles. The lack of standardisation in research design makes it difficult to compare across study results. The frequency with which well-being questionnaires and performance measures were administered differed across the research and although most of the included studies measured the two constructs more than once, methods and procedures varied. A number of articles collected single, snapshot assessments of well-being one day prior to performance, at more than one different competitive meet, whereas other articles repeatedly collected well-being (daily or

fortnightly) and performance (at spread time-points or fortnightly) assessments at different intervals across a season or academic semester. It is likely that the repeated measures had more opportunity to capture the dynamic fluctuations of well-being, as it can adjust relative to someone's day-to-day experiences. Even with the studies that measured well-being one day before a competition, it is possible for this to vary by the time they competed the next day because of the transient characteristics. This variety again could have caused the inconsistency in the results of the relationship.

It was also common across the studies for collection of well-being information to occur before performance. This order was suggested in some instances so that well-being was considered in advance of performance outcomes, as these outcomes have potential to impact on someone's well-being according to their successes or failings. It also makes sense to consider the research where well-being was captured prior to performance as this review was looking to consider whether the state of well-being does act to influence the state of performance. It would be useful for future research to include more frequent measures of well-being and to attempt to capture well-being in closer proximity to performance (e.g. during). This could make understanding clearer and offer a better chance of observing the dynamic fluctuations of well-being. However, this would come with obvious challenges of collecting measurements without causing distraction, whilst minimising the burden, especially when examining elite or high-level athletes. Frequent measurement of well-being is required in order to capture the acute adjustments. To make this frequency achievable, researchers could implement short daily monitoring tools, such as online training and wellness diaries, supplemented with more comprehensive weekly/fortnightly measures of well-being. Simple and efficient methods of inputting values through apps on mobile devices could offer fast and portable solutions for this.

The methodological shortfalls may also be explained in that the exploration of the well-being and sport performance relationship was not the primary aim of the majority of the papers included in this review. It is likely that some of the factors discussed as limiting about the methods and research design may be because the primary focus of the studies was elsewhere. Additional research where explicit attention is paid towards the correlational relationship between well-being and sport performance as the primary objective may rectify some of these aforementioned inadequacies.

### **3.4.2 Theoretical reasons**

**3.4.2.1 Construct complexity.** The literature gleaned within this review may have delivered unclear conclusions due to the theoretical complexity of the constructs involved.

Both well-being and performance as concepts are multifaceted with the potential for a significant number of factors to contribute to and influence each. With this in mind, the relationship is theoretically intricate, and it would be overly ambitious to think a simple relationship could be ironed out, and unrealistic to assume a straightforward interaction.

The research on the relationship between well-being and sport performance has been primarily univariate and several potential confounds have been generally overlooked by the researchers. One study, Filho et al. (2015) controlled for the demographic variables of age and type of cyclist. These factors, amongst others, have potential for different influences upon well-being. Although this study aimed to consider some additional variables, it is likely that the well-being and sport performance relationship is influenced by a multitude of other factors, in line with the intricate nature of the terms, that could be identified and explored. Ideas could be shared here from the research on the relationship between mood and performance as there are some theoretical commonalities between mood and well-being. Mood is often interpreted as a part of well-being. It is a multi-dimensional idea where a variety of moods can be experienced, they can fluctuate, and each mood may have a different relationship with performance. Similarly, well-being is characterised by a variety of domains, the nature of these domains can fluctuate, and each domain may have a different relationship with performance. Terry (1995) proposed that the prediction of performance from mood is maximised when situational variables, which potentially moderate the mood – performance link are considered. He suggested that salient factors include task characteristics such as, duration of the event, complexity of the task, the type of skills involved, and the number of co-acting performers. All of these factors, as well as other external factors, such as opponent and weather conditions could similarly be considered as potential moderators for the well-being – performance link (Saw et al., 2015). Additionally, other personal characteristics such as skill level, preparation and conditioning have considerable impact on performance and therefore need to be controlled for to truly identify the effects of well-being on performance in correlational terms, suggesting the examination of moderation may be a useful step forward.

Within this review one of the key confounding variables that may account for the varied results is the wide range of sports investigated across the research. The samples involved are diverse, with no studies replicating the examination of performance of the same sports. Exploring a number of different types of samples has its obvious benefits of providing insight for a range of sports, but does however present difficulties in determining whether the variation in performance is actually down to well-being, or whether it could be attributed to how the particular demands and characteristics of the sport are affected relative to well-being. Well-

being likely interacts with different sports in different ways, comparable to how Terry (1995) described mood. Different sports have varying levels of each of the features suggested as potentially confounding moderators within the relationship. The characteristics of a sport will determine: the level of attentional control, emotional control and concentration required; the opportunity for support from others (e.g. teammates); and the preferred temperament to obtain successful performance. All of these features have the potential to be affected by a person's well-being, indicating that sport appears to have the potential to act as a moderator within the relationship.

By looking at the performance research in parallel fields (such as mood and emotion) it becomes apparent that the relationship of these elements with performance is not as straightforward as we might expect. Often certain moods can facilitate performance, yet in other instances these same moods are debilitating for performance (Beedie et al., 2000; Lane, 2007). Certain sports (e.g. combat or contact sports) may benefit from and utilise negative emotions for successful outcomes, where positive emotions may cause them to underperform (and vice versa). This indicates that the relationships with performance are complicated. This mirrors what the current review suggests with well-being, as even though there is limited research, from evaluating seven studies, some mixed findings have already begun to emerge. Perhaps the relationship is far more complicated than just the assumption that good well-being creates good performance.

It would be of considerable value for researchers to explore the well-being – performance relationship through multivariate studies, which reflect the suggestions theory makes about the multidimensional features of well-being and the many factors involved with performance. The consideration for additional influences (based on some sort of selected theoretical framework), and potential moderating and mediating variables, could offer particular insight into the complexity within this relationship and could help to advance knowledge in this area. This area of work needs to see better implementation of the theory that is guiding the research within the research designs and analysis techniques. We need to look to a quantitative assessment of the effectiveness of well-being measures to predict performance outcomes, where potential moderating variables are considered.

### **3.4.3 Strengths and Limitations**

Strengths of this systematic review include that an extensive search of ten databases was conducted. Additionally, the review has been reported in a full and transparent manner in accordance with the PRISMA guidelines to allow for open assessment of its strengths and weaknesses. The current systematic review has some limitations. First, the literature search

was restricted to English-only publications to ensure all articles could be thoroughly reviewed and critiqued. This may have resulted in the exclusion of relevant studies in other languages. Second, due to the underdeveloped area of work on this topic resulting in an insufficient number of relevant studies meeting the inclusion criteria, and a variety in the measurement instruments used across the small sample of studies, a meta-analysis would likely have been underpowered and yield results lacking meaning and precision. This decision was deemed appropriate as the small study number identified may have had adverse effects on the outcomes of statistical power (Shadish & Sweeney, 1991).

#### **3.4.4 Further research**

Future research ideas have been integrated throughout the above discussion. To summarise, a more complete understanding of the relationship between well-being and sport performance may arise simply by carrying out some more research focusing on exploring objectively and quantitatively what the nature of the relationship is. These types of studies in future need to: (1) implement good quality, theoretically guided, well-being measures, (2) achieve consistency in the indication and understanding of performance, (3) seek to scrutinise and gain uniformity of questionnaires used, (4) implement designs which can consider the dynamic, fluctuating nature of well-being, (5) expand into multivariate studies with consideration for theoretically backed confounding variables within the relationship, and (6) aim for clarity in conceptualisation of terms by being more grounded in theory. The latter is important to initiate a change in the trend of the research being too flexible in its theoretical underpinning.

The employment of various research designs, such as experimental research, will also add to the literature as they may allow for cause and effect relationships to be assessed. Study on the presence of the well-being – sport performance relationship may help to refine our understanding, however it also seems appropriate to enhance our understanding of what the other potential influences and contributors could be within this relationship. Future research may look to examine past the existence of a well-being – sport performance relationship towards the specific features and fundamentals that characterise and control the relationship. As the research in this review indicates that the relationship is more complex than the simple presence of one, other methods should be used to gather more intricate details about what goes on for athletes. This advance may be approached via multiple methods either to assess some of the moderating variables, or to explore these by asking athletes directly.

A call for greater application of qualitative methods approaches has previously been recommended within positive psychology (Friedman, 2008). Qualitative methodologies may

be more appropriate to explore details about the particulars within this relationship between well-being and sport performance, as this review, with its inconclusive evidence, suggests there may be more to understand than obtaining a correlation or number to gather meaning about this interaction. Other variables may modify the interaction between these factors, which have not been uncovered through quantitative means. Using qualitative methods to explore people's perceptions would provide better opportunities for discussion around a range of different instances and the multitude of interactions within the relationship.

Consideration of temporal variations regarding well-being and performance in training and in competition over a longer period of time may also improve our knowledge and understanding of the relationship by providing insight into the influencing factors within this relationship. Future research could seek to uncover what actually contributes to athletes performing well (or not) when their well-being is at differing levels, in the real world. Study two within the next chapter will aim to address this point. In sport, athletes will undoubtedly have to perform at times where their well-being is lower and higher, so perhaps understanding and having knowledge about what could be done to help athletes when these situations arise will have scope to assist athletes in navigating these experiences in the future.

### **3.5 Conclusion**

The current systematic review makes some important contributions towards the aims of the PhD. In general, the review has helped to identify the current state of the research regarding the quantitative relationship between well-being and sport performance. The review has revealed the scarce amount of research that has considered whether a relationship exists between well-being and sport performance. The current PhD is about athletes' and sports practitioners' perceptions and stories around the relationship. This review has therefore contributed to the PhD by sensitising the author to what, quantitatively, the actual relationship in effect may be, from a positivist perspective. The review offers some familiarisation with what this relationship might look like when exploring perceptions of the relationship, and will subsequently inform the development of interview guides, anticipation of what may emerge within interviews, and will also provide a framework for interview interpretation and analysis. This review has also identified the methods used to explore the relationship quantitatively and indicated that other methods may be useful to understand, more clearly and in more detail, what is going on. The review has also given some indication of whether a relationship is, or is not, present between well-being and performance, to which the results are mixed and unable to offer straightforward conclusions. In particular, the review has examined when well-being is considered as more of an independent variable in relation to performance, or as a moderator

for performance, as opposed to being affected by performance. The next chapter of the thesis will focus on the narratives of elite athletes' perceptions of the well-being – performance relationship.



### 3.6 Thesis Study Map: Study One

Study	Objectives & Key Findings
<p><b>Study One: A systematic review of the relationship between well-being and sport performance in competitive athletes</b></p>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Systematically analyse the previously conducted quantitative research regarding the relationship between well-being and sport performance to reveal the current state of the literature in this area</li> <li>• To obtain a quantifiable indication of the relationship</li> </ul> <p><b>Key Findings</b></p> <ul style="list-style-type: none"> <li>• Overall dearth of quantitative studies, limited to only 7 (of moderate quality) matching inclusion criteria</li> <li>• Mixed support for a relationship with inconclusive and varied evidence</li> <li>• Range of correlations reported: significant/non- significant, weak/moderate/strong, positive/negative, no correlation, making a consensus statement regarding the relationship between well-being and sport performance difficult</li> </ul>
<p>Study Two: Elite athletes' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>•</li> </ul>
<p>Study Three: Practitioners' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>•</li> </ul>
<p>Study Four: Longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance: a mixed methods investigation</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>•</li> </ul>

## **Chapter Four**

**Study 2: Elite athletes' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis**

#### 4.1 Introduction to Study Two

The previous chapter systematically reviewed the quantitative literature of those studies with a focus on the relationship between well-being and sport performance in competitive athletes. The current chapter presents the first of the empirical studies within the thesis and addresses in detail the methods primarily applied within the PhD, explaining the rationale for the use of qualitative approaches, techniques and analysis as a means to meet the research objectives.

As highlighted in the literature review along with findings from the systematic review (in chapters two and three), the number of studies investigating the relationship between well-being and sport performance overall is limited, with the majority of the research focusing on descriptive data and adopting predominantly quantitative methods. Lundqvist (2011) echoed these claims through identifying a lack of exploration into well-being as a predictor for sport performance. Indeed, the systematic examination in the previous chapter presented conflicting evidence regarding the direction and strength of this relationship, resulting in a somewhat unclear picture of the interaction. Quantitative studies have struggled to provide a clear representation of the relationship, suggesting it may be overly simplistic to explore this topic through quantitative approaches alone. Although further quantitative research is needed to add to the existent conclusions and gain more evidence for the state of the relationship, it is likely (based on previous studies) that this type of work will provide further inconclusive support and varied results. It is timely to consider approaching the exploration of the relationship between well-being and sport performance through different questions and methods to advance understanding.

The theoretical complexity of well-being and performance as stand-alone constructs lend themselves to the application of more in-depth methods, such as narrative inquiry, as the exploration of two such complex constructs together likely require flexibility in their interpretation. Narrative methods have been applied to a range of other psychological concepts in sport, such as retirement and mental health, chronic pain, injury and disability, and career transition to name a few (Carless & Douglas, 2009; Douglas & Carless, 2015; Hunt & Day, 2018; Jewett, Kerr & Tamminen, 2018; Smith, 2013). Such detailed approaches will provide opportunities to glean a richer understanding of what the fundamental features of the well-being – performance relationship are. Just as Mayoh and Jones (2015) implemented a more detailed approach in their conceptual proposal of obtaining well-being through sport participation, other qualitative methods are needed to explore the relationship in a richer form, to surpass the superficial ideas and value the knowledge and description of the experiences of

those involved. Stories can also act to assist athletes in processing and understanding their own experiences of the relationship and may result in them being more aware of ways in which the two concepts can mutually interlink for future reference. The limited amount of previous qualitative research that exists has provided findings consistent with elements of well-being (e.g. personal and lifestyle factors) often identified in the form of intermediary variables assumed to be indirectly beneficial or detrimental for sport performance, but has not exclusively set out to explore the relationship between well-being and performance (e.g. Douglas & Carless, 2006). It may be assumed that there are likely explanations for why the picture presented by the quantitative data is indistinct and we ought to attempt to gain some clarity about the relationship. That being said, it would be worthwhile to examine elite athletes' stories and experiences of the interaction, to see how their perceptions about what goes on and what contributes to it, may shine some light on why the evidence lacks consistency.

Advancements suggesting well-being is considered to be more than an outcome of successful performance and is in fact believed to be a contributor to performance success, are now being increasingly recognised (Brady & Grenville-Cleave, 2017). A suggested link for these two factors has been proposed because of the evidence that positive affect can promote many desirable behaviours, skills and resources associated with success (Brady & Grenville-Cleave, 2017; Lyubomirsky, King & Diener, 2005). Therefore, it would be acceptable to suggest that well-being may play a role in sport performance because it is partly constituted of emotional and affective states, which are key features with potential for performance impact if disrupted. As elite athletes operate in highly competitive, highly stressful environments there is potential for any short-term emotional responses and long-term affect to impact performance (Jones, Meijen, McCarthy & Sheffield, 2009; Lundqvist & Kentta, 2010). Narrative insight into the interaction between the already demanding task for athletes to perform at the highest level with minimal but significant margins for error, and the challenges of their own psychological and emotional states and personal circumstances, would be invaluable to uncover the stories told.

Despite having knowledge of some factors consistent with features of well-being, with implied performance links because of their manifestation when exploring athletes' successful and unsuccessful performances, the understanding is limited and there is potential for the generation of additional insight by specifically asking questions about the well-being – performance relationship. There is a gap in knowledge surrounding how athletes view this interaction and therefore one way to advance knowledge of the well-being and sport performance relationship and help achieve the aims of the thesis, was to interview elite athletes

and explore their perceptions and stories of this relationship. Gaining knowledge of the well-being – performance relationship from the athlete’s perspective will be valuable as they have likely experienced multiple different interactions between their state of well-being and the quality, outcome or results of their sport performances at particular times. The construction of narratives will serve an important purpose for, and communicate, the elite athletes’ sense-making around this relationship to help understand the context of them trying to achieve in a performance-oriented world with very real consequences. Regardless of any normal day-to-day events, as well as any minor or major life events (positive or negative) that may impact upon an athlete’s well-being, high level performances are still required and expected. It is also probable that elite athletes will have both successfully and unsuccessfully managed their performance during periods of higher and lower well-being. Athletes can give first-hand accounts to provide a rich and genuine understanding of these types of experiences that would not be possible to acquire from other sources. Similar processes have been undertaken by Theberge (2008) in her examination of elite athletes’ accounts of the relationship between health and sport. Theberge (2008) garnered detailed descriptions of the immediate and long-term impact of certain behaviours within high performance sport settings upon the health and well-being of athletes.

Athletes’ breadth of knowledge and participation in sport at a high level can allow for individuated, but detailed opinions surrounding factors perceived as influential to the relationship in the current thesis, and strategies used to deal with differing circumstances. Different sports may also present diverse challenges and demands with respect to individual context and factors within the relationship, and may provide a platform for the identification of parallels between sports. Focusing on elite athletes from a number of different sports may offer insight into potential sport-related differences regarding the interaction between well-being and performance, whilst offering a sample of stories that may be applied within broader settings. Athletes’ narratives may illuminate key challenges they face when managing the interaction of well-being and sport performance, which may inform and guide future intervention, and enhance the provision of effective psychological and well-being services for athletes and within sports generally.

The aim of study 2 was to advance current knowledge of the relationship between well-being and sport performance by examining elite athletes’ narratives and stories regarding their perceptions and experiences of this interaction. Specifically, the study focused on qualitatively exploring how athletes perceived: (1) well-being and (2) performance conceptually, and their narratives of: (3) how well-being interacts with and influences sport performance, and (4) key

factors that play a role in the interaction (by mediation, facilitation, challenge or contribution to it).

## **4.2 Method**

The following methods section is extensive as it addresses methodological approaches in depth that are relevant to all of the subsequent studies within the thesis.

### **4.2.1 Research Design**

In deciding which research approach to adopt, I was primarily guided by the aims of the thesis outlined in chapter two. Given that the predominant focus of the current thesis was to explore athlete and practitioner perceptions about the well-being – performance relationship, a qualitative research design was deemed most suitable, as it would facilitate the identification and illumination of relevant features that are most likely important in understanding their perceptions of the interaction. Qualitative methods are appropriate to engender the rich data required to promote understanding of what is potentially a complex line of inquiry (Smith, 2017). There is a need for a methodology that supports the investigation of a reasonably unexplored area of study, adds to available knowledge, and enables acquisition of detail from the individuals involved (Tracy, 2013) in the hope of gaining a generally greater understanding of the area of interest.

The use of a qualitative research design provided opportunity for exploration of athletes' perceptions about the relationship between well-being and sport performance from their own perspective and viewpoints (Patton, 2002; Tracy, 2013). This design was deemed most appropriate for this research as these methods can explore purpose, typically focus on depth within a relatively small sample selected purposely, and can maintain and value context holistically (Tracy, 2013). Additionally, this approach rejects scientifically derived knowledge as the only truth and allows for examination of people's subjective interpretations, and insight into their self-defined (as opposed to researcher-imposed) meaning-making process regarding the world they live and function in (Willig, 2008; Smith & Sparkes, 2014; Patton, 2015). Essentially, capturing the opinions and viewpoints of respondents without predetermining their judgements and beliefs (Guest, Namey & Mitchell, 2013). Qualitative methods can demonstrate the possibility of multiple interpretations whilst highlighting the theoretical, moral, and practical significance of particular ones (Tracy, 2013). The qualitative approach in essence respects the expert knowledge of the participant and allows for the provision of insights into each participant's personal, unique and authentic human experiences (Kesby, 2007). Other advantages qualitative inquiry has over quantitative methods include the opportunity for clarity, where participants may misunderstand a question, this can be rectified to generate more

appropriate responses (Guest et al., 2013). The flexibility of qualitative data collection is also considered a strength as conversation can be probed to explore respondent's thoughts and opinions in different directions and detail, following them up without the constraint of fixed responses.

As the purpose of the current PhD was to gain an understanding of the participants' perceptions of well-being, sport performance and the relationship between the two, without restricting their descriptions of their experiences, a qualitative method of data collection and analysis was employed within the three empirical studies. These data were supported by quantitative results where required (i.e. in study 4), which will be discussed in the relevant chapter (chapter 6). Additionally, as the literature focusing on the well-being – performance relationship is limited, and investigation of this topic specifically is still in the early stages, qualitative research permitted detailed examination, allowing for points to be highlighted to enhance the understanding of this relationship.

Despite selecting qualitative methods within the current thesis based on their suitability to meet the objectives of the research and answer the research questions, some of the limitations of this approach must be recognised. The first limitation is that qualitative research is typically a time-consuming process because of the complexity of data interpretation and analysis (Silverman, 2016). This can lead to lapses in concentration of the researcher where the potential for important opportunities and details may be overlooked.

Secondly, as qualitative research generally investigates samples of a smaller size, findings are considered to be difficult to generalise (Guest et al., 2013). Whilst recognising that small sample sizes have potential limitations in their statistical generalisability, that is not the only basis on which findings can be generalised. By using methods to understand what is going on in detail for a particular set of participants, there is potential for the findings to be applied or transferred by others to their own situations.

Another limitation of qualitative methods refers to the potential for researcher influence upon the data, as the researcher *is* the instrument, therefore interpretations are filtered through the researcher and their biases (Tracy, 2013). Whilst acknowledging that there is potential for researcher influence to be detrimental, it must be recognised that it is also possible for the researcher and their background to affect the data in a positive way. To overcome this limitation and provide some context for the reader of why I may have interpreted the data in such a way, later in the chapter I have outlined my background and own situation including my experiences of being an elite athlete and the influences it may have upon my own research, within the researcher positionality section. Following this I have presented my research philosophy and

approach to illustrate my stance as a researcher. The effect of all of these limitations for the research process can impact the quality of the qualitative data collected. Processes were followed in an attempt to minimise or alleviate some of these issues, which will be discussed in more detail later on in the chapter, within the research credibility section.

#### **4.2.2 Participant Recruitment and Inclusion Criteria**

Participants ( $n = 10$ : male 5/female 5), aged between 20 and 37 ( $M = 24.6$  years) were recruited for involvement in the study from across the United Kingdom via purposeful sampling. A purposeful sampling technique is a method of selection typical of qualitative study, based on pre-determined criteria to obtain participants considered well-informed and able to provide rich data that is relevant to certain parameters of the research objectives (Creswell, 2009; Morse, 1991; Patton, 2002). Participants are identified and targeted for inclusion due to their potential proficiency to provide information-rich insights regarding the goals and purposes of the research (Patton, 2002). Participants within this study were selected as they were expected to have relevant knowledge and personal experience of the relationship between well-being and sport performance, on the basis of their current career lengths and level of performance in their sport. With the potential limitation of a lack of variation within a purposeful sample resulting in limits to the data collected, attempts to address this were made by inviting a number of different athletes from different sports, clubs and regions within the sample.

Respondents were elite athletes from eight different sports: weightlifting ( $n = 1$ ), trampolining ( $n = 2$ ), boxing ( $n = 1$ ), gymnastics ( $n = 1$ ), tae kwon do ( $n = 1$ ), athletics ( $n = 2$ ), table tennis ( $n = 1$ ) and water polo ( $n = 1$ ). Inclusion criteria relevant to the research questions determined the eligibility of participants for participation within the research. Inclusion criteria for the current study were implemented to recruit a sample of elite athletes in line with the classification continuum model proposed by Swann, Moran and Piggott (2015). Elite athletes were defined for this study as having qualified for the national team at junior or senior level or were members of a recruiting squad for those teams. Inclusion criteria also stated athletes had to train for a minimum of 8 hours per week and had to have competed nationally, internationally or hold a national title. Participants trained for an average of 15.75 hours per week. All participants had international representation (e.g. Commonwealth and youth Commonwealth Games, European, World, and Olympic representation) with the exception of two athletes: both exceptions had been national champions and one had reached international level in another sport prior to taking up their current sport. This criterion was administered to generate a cohort of athletes who could draw upon personal experience of the relationship between well-being



and sport performance in high level sport. Demographics of the sample are presented in Table 4.1 to illustrate some of the characteristics of the athletes involved.

Table 4.1 *Athlete Participant Demographics*

No.	Age	Gender	Sport	Sport Level	Age started	Training hrs p/week	Best Achievement
1	27	F	Ind.	Nat.	25	15	Nat. Champion
2	20	M	Ind.	Int.	10	16+	European Bronze
3	21	F	Ind.	Int.	2	15	World Silver
4	20	M	Ind.	Nat.	10	16	Nat. Champion
5	24	F	Ind.	Oly.	7	25-30	World Bronze
6	29	M	Ind.	Int.	24	30	CWG Bronze
7	37	M	Ind.	Int.	11	8-14	World 4 <sup>th</sup>
8	25	F	Ind.	Int.	7	12+	Sen. Six Nations Champion
9	21	F	Team	Int.	9	8	CWG Gold
10	22	M	Ind.	Int.	11	10	Youth CWG

\*F = Female – M = Male – Ind. = Individual – Nat. = National – Int. = International – Oly. = Olympic – CWG = Commonwealth Games – Sen. = Senior

### 4.2.3 Data Collection

**4.2.3.1 Procedures.** Following ethical approval from the Research Ethics Committee at Liverpool John Moores University, initial contact was made with potential participants via a letter and information sheet sent over email. These outlined the nature, purpose, eligibility criteria, procedures, risks and benefits of the study (see appendix B). The researcher and supervisory team used personal connections to contact 26 athletes directly. A number of practitioners from different disciplines (e.g. nutritionists, performance lifestyle advisors, sport psychologists and university scholarship programme managers) were also contacted in attempt to gain access to their elite athlete clients. A total of 10 athletes expressed willingness to participate. Of the remaining 16 contacted, 12 either did not respond or were unresponsive

following initial contact made, and 4 were not permitted by their governing body to participate due to the timing within the competition season.

Upon confirmation of participation, participants completed a consent form, which emphasised awareness of appropriate ethical considerations (e.g. voluntary involvement, right of withdrawal, confidentiality and anonymity of data; see appendix B). Participants were also asked to complete some demographic data questions (table 4.1) including: age, gender, sport, sport level, age they started their sport, hours training per week, top three sport results, short and long term goals for sporting career, and any other commitments, to gather information on the sample involved (see appendix B). Athletes specified a number of different types of goals for the next stage of their sports careers. One type of goal related to outcome or the aspect of winning, for example: another title, the league, medals, a championship, and being undefeated. Other aims referred to going to a major championship such as the Olympic or Commonwealth Games, being selected for a particular team or squad, and becoming professional. Athletes also had goals relating more to their process, for example: improving the quality at which they do their sport, extending their knowledge of the sport, developing in the sport, being the best athlete they can be, and performing well in a certain competition. Other aims included helping to rebuild a broken-down team as a result of funding loss, seeing what happens, and taking each year as it comes. Immediately prior to interviews, the purpose of the study was reiterated to participants before asking them to provide verbal consent to continue.

Data collection took place with the participants using the methods outlined in the next sections of this chapter. Researchers have indicated the challenges of establishing sample size, with suggestion that to determine this prior to a study is almost impossible (Patton, 2015). A preferred sample size may be proposed when a study is designed, but as a sample may emerge in terms of its composition and size according to what materialises as the investigation develops, this initial intended number may not be the final amount (Patton, 2015). Just as these circumstances may lead to deviation from the original sample size, it has been suggested that if saturation is not achieved, participants can be added on the basis that it will assist researchers in answering their research question (Patton, 2015). Saturation is achieved when no new themes are emerging from further interviews, and when additional participants are unlikely to add data that can contribute new knowledge to the topic under study and answer the research questions (Patton, 2015). After 10 interviews had taken place saturation appeared to have been achieved, as the data from the latter interviews did not seem to generate any particularly new thoughts or make changes to data already collected (Guest, Bunce & Johnson, 2006). Follow up member reflection interviews were conducted with all 10 athletes on separate occasions

following the initial discussions to clarify the researcher's interpretations and provide an opportunity for further data collection. Further detail of these reflective discussions is provided in the interview guide section later in this chapter.

**4.2.3.2 Interview method.** Following agreement of participation, mutually convenient times were arranged to conduct either face-to-face or telephone/FaceTime<sup>®</sup>/Skype<sup>™</sup> interviews (Hanna, 2012). Interviewees elected the method of interview according to their preferences. Face-to-face interviews were conducted in person with seven participants on the university premises, in rooms that could be overseen from a distance but not overheard. Although face-to-face interviews were the preferred method for the majority, the remaining three interviews occurred via telephone/FaceTime<sup>®</sup>/Skype<sup>™</sup>. These methods were employed for the purpose of convenience, due to the widespread geographical location of a number of participants, to minimise disruption to their daily routine and maximise participation within the study (Iacono et al., 2016).

Limitations of mediated interviews include the loss of certain subtleties and rich cues associated with physical interaction, such as facial expressions and physical appearance observations (Sparkes & Smith, 2014). Respondents are also at more risk of becoming distracted and due to the absence of mutual non-verbal communication the interview may develop with a reduced sense of co-constructed meaning (Tracy, 2013). Despite these limitations, studies have demonstrated that self-disclosure and responses via telephone/FaceTime<sup>®</sup>/Skype<sup>™</sup>, obtain data equivalent to that acquired face-to-face, and these methods provide ways of collecting data that are viable and complimentary alternatives (Bermack, 1989; Kerr & Dacyshyn, 2000; Warriner & Lavalley, 2008; Iacono et al., 2016). Mediated interviews may in fact offer greater respondent anonymity as the participant and researcher may not be visible to one another, which may lead to participants being more prepared to share sensitive details in their responses. Also, by providing the scope for a broader geographic inclusion of participants, research using these methods can extend to include members within samples that may otherwise have been inaccessible and costly (Tracy, 2013). To minimise the effects of the above limitations, the researcher focused strongly on building rapport between themselves and the participants to generate comfort and reduce the potential for nervousness and holding back.

Qualitative interviews were implemented to engender opportunities to explore, understand, and mutually reflect on the complex phenomena within participants' subjectively lived experiences, from their own perspectives (Tracy, 2013). Semi-structured interviews were employed as the research technique. A semi-structured interview is a set of pre-determined

questions that give dialogue direction and purpose but offer flexibility for expansion and emergence within the topical emphasis (Patton, 2015; Tracy, 2013). The structure within this approach assists during the analysis phase, as the option is available to easily identify similar interviewee responses to be compared and contrasted from transcripts, as opposed to unstructured interviews (Patton, 2002). The flexibility of this approach permits for elaboration on ideas considered important to respondents that initially may not necessarily have appeared relevant to the researcher (Gill, Stewart, Treasure & Chadwick 2008). The flexible method also means emergence of topics within the data are not as tightly constrained as discussion is stimulated rather than dictated, which provides a platform for the complexity of participants' viewpoints (Tracy, 2013). This interview technique permits the addition of new questions or the modification of existing questions based on participant responses. Semi-structured interviewing is considered appropriate to generate understanding of people's feelings, opinions, experiences, knowledge and perceptions about certain aspects of themselves within the world (Kvale, 2007). As the current research is aimed at understanding athlete perceptions and experiences regarding the relationship between well-being and sport performance this semi-structured interview technique was adopted.

Questions were open-ended and the researcher followed-up and spontaneously probed responses further with sub-questions to allow participants to offer more detail and depth (Tenenbaum & Driscoll, 2005). The interviewer asked critical probing questions to pursue topics to a deeper level and for interviewees to clarify, expand or negate particular points raised (Tracy, 2013). Whilst providing participants with flexibility to express thoughts and opinions and allow them to pursue particular issues mentioned within responses, these probing questions ensured sensitivity to individual differences and explored general and personal dimensions of participants' experiences. (Patton, 2015; Thomas, Nelson & Silverman, 2005). Sub-questions were pursued if the participant's responses to the initial main questions did not sufficiently cover the subject of interest.

Although semi-structured interviews are implemented for data collection within the current thesis, potential limitations must be addressed. The researcher is the research tool within interview studies. The skill level and individual character of the researcher will therefore have direct impact on the data acquired. Aspects such as interviewing experience, asking appropriate questions and probes, the way questions are asked, developing rapport with interviewees, where and when the interview is directed or re-directed, and reactions or responses to the interviewees points may all unintentionally influence the information obtained. To minimise these limitations interview guides were piloted with a number of people who were

either: (1) involved in sport at some level but did not adhere fully to inclusion criteria, or (2) established businessmen who could relate the questions to performance within their work role. Neither of these demographics were ideal to test for the current research, however both were deemed appropriate options to practice with because of particular characteristics they had in common with the research sample. Pilot interviews allowed the researcher to rehearse and prepare wording and framing of questions, practice thinking on the spot for prompts of elaboration, and become aware of own techniques and mannerisms. Essentially developing the interviewing technique but also identifying any essential adjustments needed to improve the schedules prior to the commencement of the study (Kvale, 2007). Prior to interviews taking place, two highly qualified sport psychologists/sport psychology academics with experience in qualitative research reviewed the interview schedule. Following feedback from the academics and through piloting the interviews, minor modifications were made to schedules and points regarding the researcher's interview technique were considered to improve the process of data collection.

**4.2.3.3 Interview Guide.** The content of the interview guide was based on theoretical underpinning following a review of the relevant extant literature on well-being and sport (see appendix C; e.g. Lundqvist, 2011; Lundqvist & Sandin, 2014; Patton, 2002). The interview was composed of four phases. Firstly, the introductory phase began with an introduction to the researcher and thanking the participant for their involvement in the study. The purpose and rationale of the research was then explained, and confidentiality and anonymity were reinforced. Agreement to the use of recording devices was clarified along with participant consent.

Secondly, following the setting of expectations, the opening phase of the interview built rapport and put participants at ease by inviting them to discuss relatively straightforward, comfortable topics (Tracy, 2013). Questions surrounding their current career status and their sporting background were used to engage with them immediately in an open-ended, non-threatening manner.

Thirdly, the central core of the interview explored 3 major topics: (1) perceptions of well-being as a concept, (2) perceptions of performance as a concept, and (3) perceptions of the relationship between well-being and performance. These topics were discussed via the following themes: (1a) the athlete's understanding of the term well-being, (1b) factors deemed important for well-being in general and in the context of sport, (1c) positive and negative effects on well-being as a result of being an elite athlete, (2a) the athlete's understanding of the term performance, (2b) indicators of performance, (2c) specific experiences of good and poor

performances, (3a) perceptions and rationalisations of the well-being – performance relationship, (3b) specific stories of high and low well-being at times of good and poor performances, (3c) beliefs on the simplicity or complexity of the well-being – performance relationship. Participants were asked to elaborate on their specific examples of events and provide short narratives of their experiences of well-being and performance to maintain context and complexity. Athletes were encouraged to think about their definitions of both well-being and performance to realise their own understanding and to contextualise the two concepts to interpret the interaction between them. Athletes used their own interpretations and meanings of these concepts as building blocks to construct stories about the relationship between well-being and performance. The questions required participants to be retrospective in their responses, whilst also drawing upon more contemporary experiences and general understanding.

Fourth, following the main body of open-ended questions and prior to concluding the interview, within the closure phase, participants were asked to contribute anything else they believed to be relevant to the discussion regarding their experiences of the relationship between well-being and performance. Interviewees were also requested to consider whether there were any questions they thought should have been asked that were missed. Participants were also given the opportunity to ask questions about the interview. The researcher then debriefed the interviewee with reassurance about the confidentiality of collected data, ensured the restoration of emotional level where necessary in order to terminate the interview, expressed gratitude to the participant, and explained what would happen next to their data.

The second interview was implemented following analysis of the first interview. The structure of this interview was based on results of the initial discussion and the researcher provided the participants with a summary of what they had covered in the previous interview and described the researcher's initial thoughts and interpretations of the participant's experiences. This process allowed the researcher to probe deeper, invite reflections on original responses and explore areas of the topic that were not covered in the first instance, which meant that the opportunity to collect richer data along with a more credible and complex understanding of the participant's experiences was increased (Smith, 2013). This member reflecting process presented the researcher's preliminary thoughts and initial interpretations mapped out on a diagram (see appendix C) to translate the proposed categories for focus of the narratives back to the participants. The diagram provided a visual aid for participants to understand the researcher's interpretations of their stories and was supplemented with bullet point notes to explain more detail and to ensure comprehension. The diagrams were discussed

with each participant where the researcher explained their interpretations, highlighted areas each participant could elaborate on if they wanted to and offered the chance for individuals to add anything else they deemed important at the time.

All athletes were interviewed twice with initial interviews lasting between 28 - 59 minutes ( $M = 44$  minutes) and subsequent interviews lasting between 10 – 23 minutes ( $M = 15$  minutes) dependent on the detail of participants' responses. With permission of the respondents, all interviews were audio recorded using a Dictaphone (OLYMPUS, WS-321 M, China). Each interview was later transcribed verbatim by the primary researcher, to create a permanent record of each dialogue, reflective of the original verbal account. Transcripts together from both interviews resulted in 183.5 pages of text, size 12 text, with line spacing 1.0. Minor grammatical adjustments were made to enhance readability. Interview transcripts were sent back to each participant for verification, corrections, additional thoughts or adjustments.

#### **4.2.4 Data Analysis.**

Transcription of the interviews was completed by the primary researcher through listening to the participant's voices repeatedly, which allowed for immersion in the data and was an effective method to start the data familiarisation process in preparation for the analysis (Tracy, 2013). The researcher had discussions with experts experienced in qualitative research for feedback about the selection of analysis methods, to ensure data analysis was approached and represented with the most suitable techniques. The researcher was responsive to the emergent data and whilst conducting questions with the participants it became apparent that in order to best make sense of and represent the data multiple analysis methods were required. A combination of both thematic analysis and thematic narrative analysis were decided upon resulting in two parts to the analysis of the data. These decisions were informed by attempting to apply thematic analysis to the data. The discovery that thematic analysis alone would not provide a full picture of athletes' accounts resulted in the application of thematic narrative analysis offering supplementary methods at which to understand the data. These two methods of analysis will now be discussed.

**4.2.4.1 Thematic Analysis.** Thematic analysis was used to analyse the data regarding athletes' conceptual understanding of both well-being and performance. Thematic analysis "is a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (Braun & Clarke, 2006, p. 6). Strengths of thematic analysis include synopsising central aspects of large bodies of data, to emphasise parallels and variances throughout the information collected, and also to uncover insights that

are unexpected (Braun & Clarke, 2006). This method appeared appropriate to gather a general sense of the participant's perceptions and understanding of the terms well-being and performance as it would be important to identify key themes and interrelated topics present in the data. Interview transcripts were inductively coded and organised using the specialist qualitative data analysis package NVivo version 10. Braun and Clarke (2006) outlined thematic content analysis in the context of psychology, which allowed for a transferable application of their guidelines to the current research. Braun and Clarke (2006) offered suggested standards for each of their "Phases of thematic analysis" (p.35) and emphasised the need to apply these guidelines with a degree of flexibility to suit the research questions. See table 4.2 below for a summary of the process.

Table 4.2 *Phases of Thematic Analysis (Braun & Clarke, 2006)*

<b>Phase</b>	<b>Description of the Process</b>
1. Familiarising yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming Themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Below is a more detailed description of the different phases within the thematic analysis process based on Braun and Clarke (2006).

*1. Familiarising Myself with the Data.* As the data was collected and transcribed by the primary researcher, this interaction with the material started the development of a repertoire of



knowledge about the data, which added to data familiarisation. Following this, transcripts were read to stimulate initial analytic thoughts and re-read to actively search for potential meaning and patterns within the data. Reading the data in an active manner meant that any initial ideas and interests concerning content were noted down and could be returned to in subsequent stages of analysis. This initial phase provides a basis for later stages of analysis, as familiarity with data adds to its understanding as the researcher has had more exposure to it.

2. *Generating Initial Codes.* The coding phase involved identifying features of the data deemed as interesting and relevant to the research questions and applying codes to these features to collate them into meaningful groups of data. By systematically working through the entire data set, giving full and equal attention to each data item, data is coded into individual items that may form the foundation of repeated patterns (themes).

3. *Searching for Themes.* Once initial codes had been generated, these were then sorted into potential themes by collating all the relevant coded data extracts into common groups. Different code combinations were clustered to explore the data in terms of the relationships between codes, between themes, and between different levels of themes (main overarching themes and subthemes). This phase began to allow a sense of the significance of individual themes to develop.

4. *Reviewing Themes.* The reviewing phase involved the refinement of the previously identified themes by reading over them repeatedly, to ensure for accuracy in the meanings reflected. This review process helped to develop the classification of the data by identifying whether themes were actually themes (e.g. whether there was enough data to support the theme, whether the data was too diverse to represent one theme and would therefore be split into separate themes, or whether initially separate themes may merge together into one theme). This meant that there could be clear distinctions between identified themes (external heterogeneity; Patton, 1990) and that the grouped data sets would have meaningful coherence (internal homogeneity; Patton, 1990).

5. *Defining and Naming Themes.* This phase involved defining and further refining themes to establish the essence of each one individually. Braun and Clarke (2006) suggested that for this stage of the analysis that themes are considered in isolation but that it is necessary for these to be considered in relation to other themes in order to minimise overlapping items. Conducting this phase of the process allowed for clarity of theme definition to emerge. The names of themes were based on interpretation of the literature relevant to the research questions.

6. *Producing the Report.* The final phase of Thematic Analysis as explained by Braun

and Clarke (2006) involved producing a write-up of the report with a description and explanation of the results in relation to the research question. Evidence of findings in the form of direct quotes were presented to illustrate the prevalence of shared perceptions among the participants, with a direct extract being selected for its vivid reflection of that particular theme. Results were analysed and interpreted relative to relevant past literature in order to demonstrate resemblances and developments on previous work.

**4.2.4.1.1 Presentation of thematically analysed data.** A manual pen profile technique was applied to represent the analysis outcomes regarding the conceptual understanding of both well-being and performance. The pen profiles will help to answer the study questions and meet the research objectives by firstly providing an indication of how athletes determine well-being themselves, without having particular constraints imposed on how they should consider their well-being when contemplating how this links with performance. Additionally, the pen profiles will provide clarity within the study. Firstly, for the athletes, as they consider their experiences, so they are encouraged to think consciously about what each term means to them to assist them in their interpretations of how the terms interact. Secondly, for the reader, so that when examining the athletes' views of the interaction of the terms, some context and transparency is provided as to what is involved and referred to within these terms. Pen profiles are an efficient way of displaying large data sets via diagrams of key emergent themes, frequency counts demonstrating consensus and example verbatim quotations to provide context (Knowles, Parnell, Stratton & Ridgers, 2013; Mackintosh, Knowles, Ridgers & Fairclough, 2011). This method allowed for a representation of participants' definitional comprehension of the above terms and identified the most frequently mentioned features within the concepts. Whilst frequencies were used to generate the themes included within the pen profiles, limitations of the use of frequency counts must be addressed. The meaning or importance of an idea does not always equate to the frequency with which it is identified. The reoccurrence of an idea does not make it any more significant than something that is mentioned once, as such points could be the simple reflection of the social context of that which is being explored. With this in mind, frequency counts were used to display consensus within athletes' definitions of well-being and performance, however this was not appropriate to depict the stories of athletes, so methods that were more cognisant of accounting for individual meaning were applied.

**4.2.4.2 Narrative methods and analysis.** Although there are a number of qualitative approaches, a narrative approach underpinned the current study because of a focus on participants' stories about how they narrate their experiences of the interaction of well-being with sport performance (Tracy, 2013). A second form of analysis was applied to the data as it

became apparent that other methods were needed to best represent what had emerged. Narrative investigation, as one of the forms of qualitative research procedures, has attracted increased interest within sport and exercise psychology (Smith & Sparkes, 2009b). An assumption was made regarding the notion that athletes used their stories as a way to present and share their explanations and understandings of themselves and their experience of functioning in the elite sport environment. Narratives offer an opportunity to understand people's interpretations of a situation and how they construct a reality that they then act upon (Tracy, 2013). Narratives can offer powerful perspectives as they play a key role in establishing meaning, making sense of experiences, and allowing for the communication of these (Polkinghorne, 1988; Smith & Sparkes, 2009a). Narratives allow us to understand lives in diverse ways, as each individual can provide distinct descriptions to make sense of their individual situation and surroundings (Smith & Sparkes, 2009b). Jowett (2008) discussed the reasoning behind her choice of narrative analysis and stated, "a focus on the participants' narrative is likely to provide in-depth subjective data and reveal individual differences by seeking to interpret the meaning of the narratives and its importance for personal functioning" (pp. 27–28). The way a person views the world ultimately influences their decisions about their choice of actions and engagement with their environment, as well as the limits they ascribe to themselves.

Stories are however not uni-dimensional but are resources that act for and upon people, including two sides: personal influence and social influence (Frank, 1995). The meanings people accrue from experiences and both their contextualisation of these, and creation of an identity over time, will essentially shape and determine the stories they tell about their experiences. Comparably, the stories people tell also reinforce their perceptions of how they view themselves and the world, and how they frame their adopted or resisted behaviours. Essentially, stories are not simply cognitive devices or verbal sequences but involve emotions, relationships, social constructions of the world, reflections of self-perceptions, and perceptions and influences of the self on society and vice versa. Narratives are valuable facilitators for the retention, rather than omission, of the complexity and disarray of humans (Smith & Sparkes, 2009b).

The purpose of this section is not to define narrative inquiry, as Smith and Sparkes (2009b) highlighted that many different kinds of narrative analysis exist in many diverse forms, but rather to detail how the narrative approach has been interpreted and applied for data analysis in this study. The selected methods were guided by the topic of the research and the general research aims. A range of qualitative methods may have been applied appropriately to reflect

the research, however narrative analysis techniques were used as they could offer representation and understanding of experience (Smith & Sparkes, 2009a, 2009b).

**4.2.4.2.1 Thematic Narrative Analysis.** Thematic narrative analysis was selected to organise and comprehend the participant's perceptions of the relationship between well-being and performance, as it became apparent during data collection and early analysis that there were a number of common threads emerging and participants were essentially telling mini stories more complex than themes and short verbatim quotations included in pen-profiling techniques. As participants were drawing upon specific examples to make sense of this relationship, and in line with Woike's (2008) comments that 'narrative analysis may be a particularly good choice for researchers interested in complex, subjective experiences' (p.434), it seemed more suitable to apply narrative analysis techniques to maintain authenticity and detail of the picture that participants were painting.

The present research drew on the work of Reissman (2008) and adopted a thematic narrative analysis where the exclusive focus was on the content of speech, or "what" was said in interviews or written in transcripts. Attention was paid to "the told", with consideration for the events and cognitions to which language refers" (Reissman, 2008, p.58). According to Reissman (2008) thematic narrative analysis is one of the most widely used analytic strategies and is one of the foundations of narrative analysis. The narrative analysis methods adopted within the current research also shares some similarities with the structural analysis highlighted in Smith and Sparkes (2009b). Namely, identifying the types of narratives people draw on to shape their own understanding of their personal situation and experiences, and how these are constructed alongside other alternative stories to guide their actions based on previous events. By examining the different types of narratives used by athletes to construct meaning within their experiences of interactions between well-being and performance, it was anticipated to provide some awareness of any particularly challenging or enabling narratives that may be present. Having knowledge of the potential variety of narratives within athletes' experiences may place sport psychologists and support staff in better positions to assist athletes with appropriate strategies and interventions when faced with these, or similar, situations in the future (Smith & Sparkes, 2009). The benefits may arise through being able to anticipate as opposed to react to certain events within the relationship of the two variables.

Revisiting moments of experience through a storying system allows for access to the subjective and emotional responses of the individual, which can ascertain meaning within personal experiences (Carless & Douglas, 2013). The construction of narratives regarding real life occurrences permits people to make sense of their experiences of the world, through the

connection between events and the interpretation of their own perceptions of reality (Smith & Sparkes, 2009b). Within the current research, the interest towards athletes' *stories* about the well-being – performance relationship are significant as people's actions are considered to reflect what they perceive and believe. Whilst these narratives will be a reflection of events personal to athletes' lives, they will also somewhat reveal the social context with which athletes operate in. Stories told are never solely the experiences of one person, rather narratives are social and are influenced by the environment.

Data were interpreted following the methodological steps highlighted by Sparkes and Smith (2014). The researcher repeatedly read interview transcripts and listened to the recorded interviews for immersion in the stories told; made notes and annotations of initial thoughts on or alongside the transcripts (both direct and interpretive); identified key threads and storylines; identified conceptual comments; named themes and storylines; and compared and contrasted themes and storylines between participants (p.132). These stages helped the researcher to first unpick the stories emerging for each participant and subsequently identify common threads among participants. Themes were developed inductively where no prior assumptions were made about which dimensions would be important to understand the emergent patterns in the data (Patton, 2002). Collective story elements enabled the researcher to theorise across cases and interpret participants' perceptions of their experiences of the well-being – performance relationship. I had a number of discussions with my supervisor throughout the process of identifying and mapping narrative storylines, which encouraged reflection on interpretations and explanations of the data as well as offering critique to stimulate the exploration of ideas. This narrative analysis was undertaken through accounts of the relationship between well-being and sport performance and the lived experiences of these two constructs interacting in athletes' lives. The narratives identified were representative of general emergent stories across participants. The researcher made her best attempt at providing an interpretation of what they deemed a suitable description and reflection of the narratives of athletes.

Narrative analysis permitted for the representation of the different experiences athletes have regarding how their well-being influences and interacts with sport performance, in a way that other athletes with similar performance pressures and expectations may engage and draw parallels with on a personal level, suggesting opportunity for transferability. Other personnel who may be interested in reading these narratives may include sport science support staff (e.g. performance lifestyle consultants, sport psychologists), coaches, parents and other significant members of close personal support networks of athletes, and NGBs who have control over funding and resources invested into well-being related provisions. Some research approaches

communicate findings via complex language and specific terminology, which may be understood clearly by academic readers. Narrative analysis attempts to bring people into a story in the hope of providing them with ideas they can resonate with on a human level. The use of narrative analysis may allow athletes to understand the boundaries placed on their performance in line with their well-being levels and fluctuations and allow the provision of stakeholders' support to be tailored to athletes' needs regarding this relationship more suitably.

#### **4.2.5 Research Credibility**

Researchers are expected to clearly present criteria, congruent with their assumptions, that have been identified to evaluate the quality and credibility of their qualitative research, to allow their studies to be critiqued with these principles as a foundation (Patton, 2002). To establish qualitative methodological quality within the current research, specific processes were followed in line with criteria discussed by Smith and Sparkes (2014) and Tracy (2010) to enhance the trustworthiness of the data. The current research aimed to: (a) ensure understanding of elite athlete's perceptions and experiences, (b) provide stories or narratives that advanced current knowledge, (c) provide information useful to athletes and athlete's families, (d) provide useful information for support staff and sport practitioners who work with athletes on and around their well-being, (e) increase the level of awareness of research participants regarding this topic, and (f) discover valuable and interesting material that readers would appreciate and deem relevant. With regard to these guiding principles and aims I selected criteria to address them including: *worthiness of the topic*, *rich rigor*, *credibility*, *significant contribution*, and *transparency* (Sparkes & Smith, 2014; Tracy, 2010). I ensured these criteria were met by engaging in particular processes which can be viewed in Table 4.3

The aforementioned criteria and procedures in table 4.3 were adhered to in an attempt to sustain good quality research. While certain measures were undertaken I must also recognise some additional limitations of these and acknowledge that the current research did not adhere to all of the quality criteria proposed by Smith and Sparkes (2014) and Tracy (2010).

Despite an attempt to employ triangulation procedures and engage in stimulating reflective and critical discussions about my thoughts on the results with experienced qualitative researchers, I am aware that this process was beneficial but recognise the impossibility to obtain complete theory-free knowledge (Smith & McGannon, 2017). It must be acknowledged that the background and theoretical inclinations of the individuals with which these discussions occurred will have contributed to these reflections in unique ways and therefore had some influence on the interpretations (Smith & McGannon, 2017). Each person's reality is subjective, varied, fluctuating and conditional to their own situation, so will influence research

accordingly. Also, it must be stressed that the aim of this research was not to obtain reliable, repeatable data, but rather to pursue layered, personal and meaningful interpretive insight (Smith & McGannon, 2017). Additionally, I acknowledge that by conducting member reflection processes, this will have represented beyond just the experiences of the individual and involved interpretation of those experiences with the influence from my personal assumptions and ideals (Braun & Clarke, 2013). Whilst I have been reflective in the construction of the narratives by seeking feedback from multiple sources, I also acknowledge that the narratives are my own interpretation of what was presenting to myself. I am aware that my interpretation does not necessarily reflect reality or truth, nor does it suggest more or less validity than other narratives that may exist, but that it was my best explanation for the stories of athletes.

Table 4.3 *Selected quality criteria and action to achieve quality criteria*

Quality Criteria	Action to achieve quality criteria
Worthiness of the topic	<ul style="list-style-type: none"> <li>- Conducted an extensive search of the current literature for familiarisation with the consensus of the extant research and to inform the interview guide. This also enabled a reference point to assess the extent that the current thesis results correspond with previous work</li> </ul>
Rich rigor	<ul style="list-style-type: none"> <li>- Determined specific inclusion criteria to identify elite athletes with the knowledge to inform the research question</li> <li>- Obtained a sufficient sample to represent a range of experiences in adequate detail</li> <li>- Verbatim transcription of data to allow focus on genuine words expressed by athletes</li> <li>- Flexibility in applying appropriate analysis methods to represent what emerged within the data</li> <li>- Triangulation, critical interaction and critical feedback with experienced qualitative researchers ('critical friends') for review, challenge and development of the researcher's analysis and interpretations and encouragement of reflexivity (Smith &amp; McGannon, 2017)</li> </ul>
Credibility	<ul style="list-style-type: none"> <li>- Adoption of methods well established in qualitative research (semi-structured interviews)</li> <li>- Participant review of transcripts for post-interview feedback, clarification of data accuracy, and suggestions of amendments or additions</li> <li>- Carried out member reflection processes to allow gaps to be filled from initial interviews, reflections on authentication of interpretations made by the researcher in terms of being recognisable and accurate, and for further discussion with athletes at a more in-depth level</li> <li>- Triangulation via data sources by inclusion of people within different roles (athletes, performance lifestyle advisors, sport psychologists) facilitating the potential for individual perspectives and experiences to be considered against others to gather rich representations of the phenomena under study (Studies 1, 2 &amp; 3).</li> </ul>
Significant Contribution	<ul style="list-style-type: none"> <li>- Conducted an extensive search of the current literature for familiarisation with the consensus of the extant broad research</li> <li>- Examined athlete perceptions and experiences of the relationship between well-being and sport performance in the form of the identification of relevant narratives (<i>methodological significance</i>)</li> </ul>
Transparency	<ul style="list-style-type: none"> <li>- Openness about flexibly applying relevant analysis methods to suit emergent data</li> <li>- Openness about the means by which I gained access to the sample</li> <li>- Openness about deliberation and seeking advice from supervisors or other qualitative researchers</li> </ul>



#### **4.2.6 Researcher Positionality**

It is acknowledged that the current research within this thesis employs subjectivity across the data collection, interpretation, decision making and analysis. According to Patton (2015), qualitative research interpretations are inevitably affected by the context and circumstances behind the researcher, as they are part of the social world that they study. If these factors are acknowledged, reasons for particular evaluations or judgements may be understood. Patton (2015) recommends that demographics of the researcher should be presented to appreciate reasons for any biases in the research. As the researcher, I am the instrument of inquiry and the filter through which all the data is represented, therefore, my own unique lens influences the research as a result of my experiences, background, knowledge, and training. It was therefore considered appropriate as the researcher, to disclose to the reader my own biography, with an indication of background and origins as regards interests for the thesis, so as to account for my positioning within the thesis and assist the reader in understanding my stance on the research.

**4.2.6.1 The researcher and their relevance to the research process.** I am a 26-year-old female, former elite gymnast and a PhD candidate in sport psychology. Although I have been retired from gymnastics for eight years, I feel that my experiences in and throughout my sporting career have shaped who I am today and still contribute significantly to my roles as a person, a student, a researcher, an interviewer, and a coach. I come from a 'sporty' family who all enjoy the participation in different sports but more importantly the competitiveness. Mum was county level in athletics and played netball into her forties. My sister did a bit of everything, taking a keen interest in karate and was the reason I started gymnastics so I could be just like her. She didn't last long in gymnastics though, as she didn't like to be told what to do. My brother played football but found his passion when he started rowing in his late teens. Then dad loves his football, cricket, rugby, and is a second dan black belt in three different types of martial arts. With his passion for sport he would play or watch anything if there was a competitive element to it.

I owe my success in part, coming from a working-class family who have shown me how to work hard and have made sacrifices to support me in my gymnastics. Being raised by parents with solid work ethics and exposure to their strong-minded ways of thinking allowed me to model myself on them, and having interest and support from my extended family such as my grandparents and godparents provided a great foundation for me to develop myself.

I identified as a gymnast for almost my entire childhood and adolescence and for the start of my transition into adulthood. I began gymnastics at a small club in my home town and,

within a year, me and two other girls were given the opportunity to make the move to an elite facility with one of the coaches who had been offered a job there, all before I turned seven. As I made my way through my primary, secondary and sixth form education, travelling over 100 miles each day for training, I kept up with my school work and even achieved good academic grades. The people close to me would (and often do!) call me a perfectionist, but what would you expect, competing in a sport where you train repetition after repetition and are judged on how perfectly you can execute your skills and routines.

Gymnastics was my life for 13 years. I made my first national squad aged 10 after becoming the combined compulsory and voluntary national champion and got my first international cap aged 12. I managed to qualify for the majority of major championships I was eligible for throughout my career including: Junior Europeans, European Youth Olympics, Senior Europeans (Individual and Team), Commonwealth Games and World Championships. My career provided me with some of the best and worst experiences in my life. I spent long periods away from home at national camps, sometimes missing weeks at a time from school, meaning I had hardly any close friendships in my secondary education. I spent more time with my teammates than my actual family, creating unique, sister-like bonds that were needed during those long, tough sessions, and we could pick each other up and laugh off some of the more negative sides of the sport and the high-level training demands. Travelling the world with my best friends were some of my life highlights, but along with the good, I also faced my own struggles. Not being quite the 'right' gymnast body shape and being considered over the weight I needed to be at was one of my main career battles. I also had strains on certain relationships outside of sport as a result of the high training hours, and suffered with some injuries at crucial career moments, namely a stress fracture in my spine just prior to the start of the Olympic trials. My disappointments as a gymnast, marginally failing to qualify for the Beijing Olympic team (my career dream), contribute to my reasons for conducting this research. My failures as an athlete have since driven me to want to make a difference in some way for those prospective gymnasts or other athletes who will inevitably face challenges in their sport in future. In retrospect, throughout my athletic career I can recall personally experiencing varying levels of both well-being and performance in relation to some of the different factors mentioned above but did not consider the potential interaction between these two elements at the time. Perhaps if I had been more aware of the intricacies and mutual influences within the relationship of these constructs, knowledge I have gained since through my subsequent study and training, I may have been better equipped to manage these, and may have been on the right side of the incredibly small margins of sport. This leads, partly, to why I was interested in conducting the

current research. I firmly believe I would have benefitted from having further educated support staff and coaches with developed knowledge in this area to assist me in navigating the highs and lows throughout my sport career. Accounting for this belief, my intentions within this research were fuelled by my hopes to help athletes suffering or succeeding around the tight margins of elite sport in the future.

Following a life of gymnastics, I made the decision (which took me months to actually go through with) to retire. In part because of ongoing injuries, in part because I could have the opportunity to experience university as a 'normal person' or at least a non-athlete person, and also in part because I had had a tough year that ended in disappointment and felt I had had enough of gymnastics and it was time to start the next chapter. I went onto study higher education and achieved a first class (honours) undergraduate degree in Sports Science, and a Masters with distinction in Sport Psychology, publishing the findings of both of these dissertations as papers within scientific journals. I am currently working towards a postgraduate doctorate degree in Sport Psychology through a scholarship I received from the vice chancellor. Alongside my doctorate I have also been coaching young gymnasts starting their journey of developing along the elite pathway. My fundamental philosophy as a coach is to help young gymnasts to achieve their potential, and to try to do so in even better ways and with further developed strategies from those I was exposed to as a young gymnast. I am over half way towards working my way through the coaching qualifications to become a high-performance coach, having achieved my first aim as a coach to qualify a gymnast to the British championships and help them to obtain elite status. I am now working towards my next goal as a coach, which is to qualify a gymnast for selection onto the Great Britain national squad.

My own personal background was comparable in certain aspects to the athletes that were studied within the thesis. I had trained to an elite level within sport, enduring different experiences within my career that impacted upon my well-being both positively and negatively. I had to make some sacrifices in my general life growing up in pursuit of my athletic career goals. I had to travel long-distances daily to get to a training facility that could support my ambitions. I had to juggle a sporting career whilst also going through my education and working towards my academic achievements. My academic interest in areas associated with the well-being of athletes, such as those related with retirement experiences, corresponded with my post-graduate Masters degree where I was permitted to pursue the study of a topic of my own choice and interest. Following this I developed a deeper interest in the athletic well-being experiences of athletes whilst actively engaging in high-level sport, which is where my research evolved. My background has given me some practical knowledge about elite sport from the

athlete, coach and practitioner perspective. This was significant as I could offer some degree of empathy with participants, in terms of understanding particular experiences on a personal level and having a mutual understanding of certain terminology. This may have facilitated the building of rapport and had some influence on their responses and the direction of the interviews, but may also have induced bias. Because of my background as an elite athlete and the fact that I have lived a similar life to the participants, I had to be careful not to interpret their ideas through my own experience. I ensured that I remained open to the participants' voice and pursued clarification in these instances. As preparation for my roles within the PhD I had also undertaken several advanced courses of training in the area of sport science and sport psychology during my graduate and post graduate studies. I had previously undertaken qualitative research training within some modules of my Master's degree programme. Additionally, to note here, I have peer-reviewed publications using some of the same methodology and analysis methods, such as having conducted retrospective one-off interviews previously in my sport where I have greater experience and affinity. Previous use of these qualitative research methods allowed for the refinement of applying these skills over time. I have also gained practical knowledge through the coaching process. Exposure to the day-to-day psychology of high-level training for young athletes, beyond my own experiences as a gymnast with particular fears and motivations, has opened my eyes to the subtle differences and individualities that present with each athlete. I have then been able to take this approach into the thesis and approach each participant openly as an individual, striving to embody different experiences.

**4.2.6.2. Research philosophy and approach.** Qualitative research is an interdisciplinary field that comprises a wide range of epistemological viewpoints, research techniques, and methods of interpreting and understanding human experiences (Denzin & Lincoln, 2002). The various philosophical approaches within qualitative enquiry each reflect adherence with a variety of different data collection and analysis methods and will shape how a researcher formulates and selects appropriate questions and methodologies (Patton, 2002). It is therefore necessary to consider my stance as the researcher according to my personal values and beliefs, and those regarding the research. To outline the assumptions of my research, the research paradigm in terms of the ontological, epistemological, axiological and methodological principles are considered. Ontology refers to one's view of the nature of reality, whether there is a real world, and whether reality exists. Epistemology addresses questions about the nature of knowledge, and the relationship between the inquirer and the known, to determine whether knowledge is attained or experienced personally (Denzin & Lincoln, 1994, 2005). Axiology

refers to the values and lived experience of the researcher and their role within the research process. Methodology therefore emerges from the ontology, epistemology and axiology of the researcher and addresses the question of how knowledge is gained (Guba & Lincoln, 1994).

The study within this thesis was approached through an interpretivist paradigm, as I adopted a relativist ontology and a constructivist epistemology, without exclusive allegiance to these schools of thought (Patton, 2015). This thesis is grounded in the meanings that people make of their experiences of the well-being and sport performance relationship and so the research relies upon how people construct meaning.

Ontologically, people adopting a relativist viewpoint perceive that there is no one true reality or worldview. This relativism assumes that each person's take on reality is shaped by their surrounding environment and as people operate within different settings their recognition of reality is individualised (Patton, 2015). The current thesis was not focused on finding *the* real relationship between well-being and sport performance but to consider that everyone has their own story of this relationship. The precision of participants' stories was not checked, as their reflections upon their past experiences were considered of value to make worthy knowledge contributions about their interpretations of the world (Guba & Lincoln, 1994). I assumed that participants' stories reflected their perceptions and interpretations subjectively. On a personal level I have had great exposure to the sport of gymnastics and have seen first-hand how subjective the judging of gymnastics routines can be, reinforcing to me that the social world is not singular but multiple. When considering what I wanted to obtain from the research the stance that reality is relative, rather than the existence of one single social reality, resonated most closely with my thoughts and best reflected my values and the way I see and interpret the social world.

Epistemologically, people adopting a constructivist viewpoint suggest that data is co-created between the researcher and participants because of both their presence and influences upon one another. In this thesis, meaning will be co-constructed through the collection of individual athlete and practitioner stories of well-being and performance and through my interpretation of these stories as the researcher. Alternative findings may have been gleaned if participants engaged with a different researcher. Essentially, because of the subjective and socially co-constructed nature of the data, participants' responses will have been occupied with their principles and beliefs, as well as the researcher's. Fundamentally, knowledge cannot be acquired theory-free because reality is only understood through experience, which is socially constructed and therefore already influenced (Smith & McGannon, 2017). Discourse between both parties will have also been confined by the language available to each, shaping the

interaction and the research scene (Tracy, 2013). Methodological guidance and supervision were also sought from experienced qualitative researchers in sport psychology along with feedback on qualitative research techniques. Engaging in critical discussions and obtaining regular feedback from my supervision team forced me to question and consider my analytic interpretations on a deeper level and therefore highlights further the co-construction of the data that is gleaned.

The values I carry on a personal level also present within the research and are expressed through the identification of particular criteria applied to attain research credibility. To reiterate, an aim of mine is to write a thesis that will make a substantive contribution to knowledge, to the literature, and practically to those individuals involved within this area of work that will mean something of use. I also endeavour to be responsive and adaptable throughout the thesis process to ensure that I am applying the methods and analysis techniques that best represent the participants involved within the research. I take seriously the responsibility I have to authentically tell the stories of the participants within the thesis and will make every effort to be as transparent as possible to ensure clarity of their experiences throughout the process.

The current thesis, from this viewpoint, assesses the understanding of the relationship from a number of informative individuals who have knowledge of the interaction between well-being and sport performance through personal experiences, with the intention of generating a greater appreciation about the aspects associated with it. The current focus of the above chapter details data collection, analysis and credibility procedures applied because of their implied methodological suitability to answer the research questions in ways that allow the participants' explanations of their reality from their point of view.

### **4.3 Results**

The first part of the results section illustrates the athletes' definitions and understanding of well-being and performance conceptually via pen profiles. Themes highlighted in bold represent the higher frequency numbers and more consensus within the identification of that particular factor. The second part of the results section is a presentation of athletes' narratives that are representative of their perspectives of the relationship between well-being and sport performance, and their interpretations of key elements within the interaction.

#### **4.3.1 Well-being definition**

Athletes had a multifaceted definition of well-being containing a number of life dimensions and contributing factors (Figure 4.1). The majority of athletes defined well-being as *being happy* ( $N=8$ ) and having good physical *health* ( $N=8$ ). In addition, several athletes

highlighted social factors (*relationships N=7, support network N=7, someone to talk to N=5*), psychological factors (*psychological health N=6, state of mind N=4, not worrying N=4, stress N=4*) and other physical factors or behaviours (*fitness N=6, nutrition N=5*) as contributing to their understanding of well-being. Many athletes also identified *stability (N=6)* as an important part of well-being. Other well-being components mentioned by athletes included a general level of *balance (N=4)*, *life enjoyment (N=3)*, and having *goals/purpose/direction (N=3)*. Some athletes believed well-being to be a *combination of both* physical and psychological factors (*N=3*).

#### **4.3.2 Performance definition**

Figure 4. 2 illustrates the highest frequency themes emergent in the athlete's definition of performance. The majority of athletes defined performance as the *quality of a task (N=8)*. Half the athletes (*N=5*) referred to *execution of skills/plan* and *achievement of objectives/goals* in their performance definition. Some athletes defined performance as *doing something to the best of your ability (N=4)*.

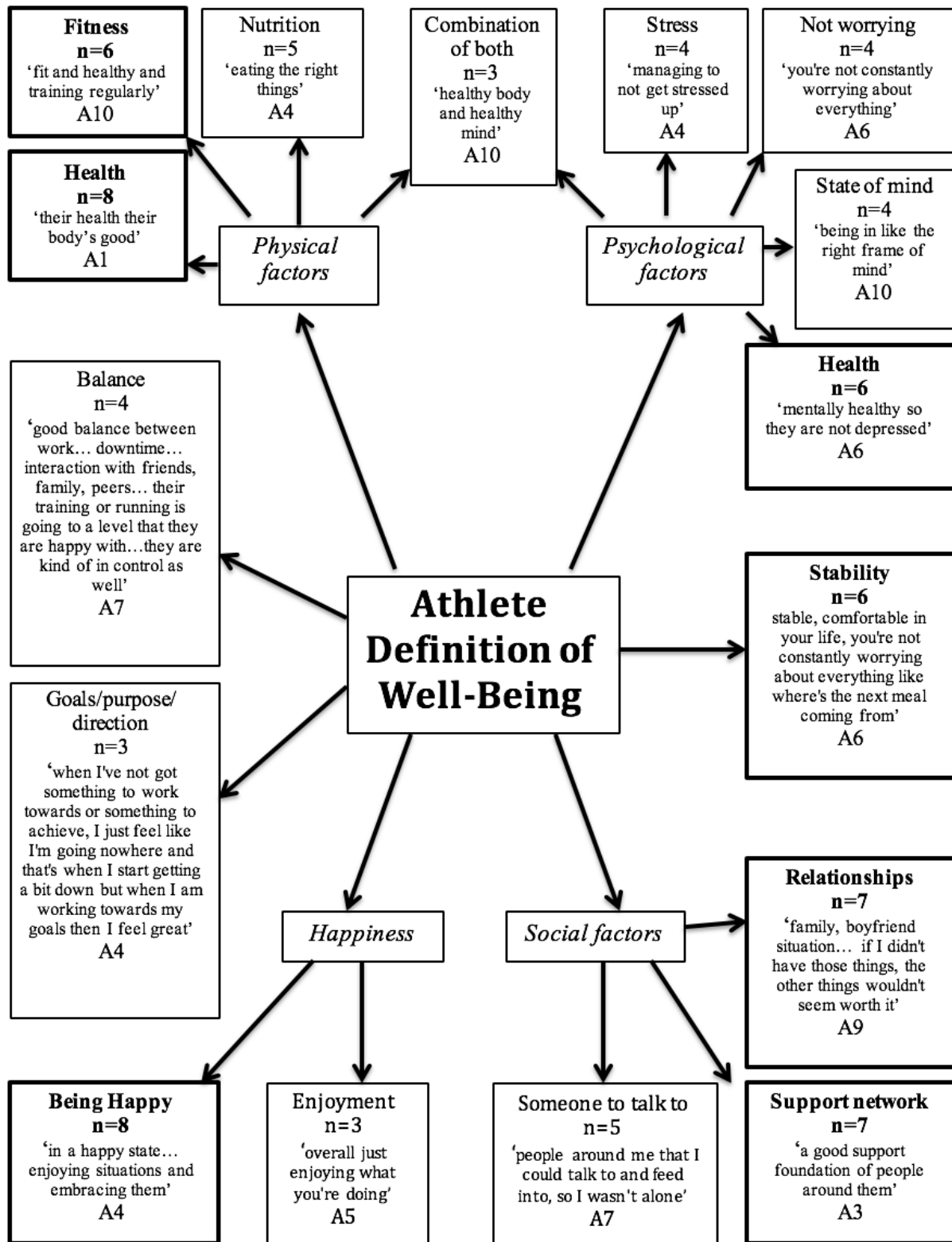


Figure 4.1 Athlete's definition of well-being and factors that contribute to well-being. A = Athlete



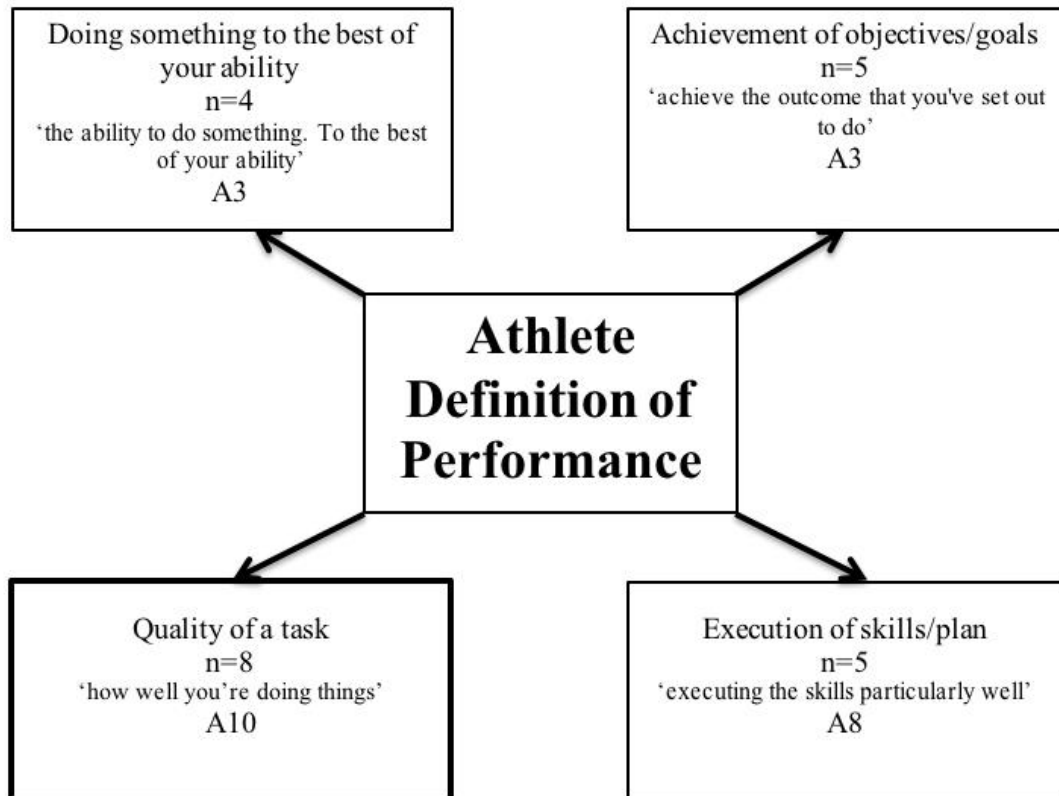


Figure 4.2 *Athlete's definition of performance. A = Athlete*

### 4.3.3 Narratives

Athletes described a complicated relationship between well-being and sport performance where it was clear that their experiences had engendered a range of interactions between the two concepts. Athletes essentially told two narratives which emerged in line with two perspectives of the relationship between well-being and sport performance: (1) where the level of well-being and performance corresponded or were similar (e.g. high well-being with high performance levels, or low well-being with low performance levels), and (2) where the level of well-being and performance did not match or were dissimilar (e.g. high well-being with low performance levels, or low well-being with high performance levels). Reflection on instances regarding the first perspective resulted in the emergence of a fundamental narrative of *balance*, allowing athletes to make sense of this relationship and construct meaning around their sport performances when considering well-being as a component within them. Reflection on instances regarding the second perspective for occasions where the athletes' personal experiences deviated from the *balance* script, athletes were forced to construct an alternative supporting narrative, *optimal mind-set*, by adopting certain coping strategies as explanations for these times. In general, no athlete discussed a single narrative to represent the entirety of their experiences of this relationship. Rather multiple narratives were adopted and weaved among each other to allow the athletes to maintain a sense and understanding of their multidimensional recollections (see figure 4.3 for a visual interpretation of the narratives within the relationship). Each of the narratives will now be explored.

**4.3.3.1 A fundamental narrative of balance.** The majority of athletes referred to the state of *balance* in their lives as a dominant plot feature when discussing the interaction of well-being and performance within their experiences. The *balance* narrative appeared to be an integration of a number of things. For example, *balance* seemed to give reference to the stability of well-being and the presence or absence of positive affect or happiness within their lives. Essentially, the extent that well-being was balanced was perceived to be reflected in performance. *Balance* also represented the level of management each athlete had for their own individual combination of contributing life areas and life factors, as opposed to having equal amounts of everything, and how these influenced performances. Athletes were guided by the underlying notion that if their lives were in balance, and were being well controlled and managed, then they would perform well, and without this balanced state their performances would suffer. The *balance* plot was a depiction of how the athletes' lifestyles and their approaches to life affected their well-being. The perceived consequences of the presence or absence of *balance* within their lifestyle was then often considered to make positive or negative

contributions to the quality of athletes' performances respectively, as it either maintained or diminished their well-being. Athlete 7 recalled *"when I was performing well you know I just had a nice balance of you know training, work, home, kind of everything was in a nice kind of balance"*. As a general consensus, athletes also indicated that their performances were affected when this state of balance was not present:

Athlete 7: *"Things were out of balance...you kind of don't feel happy and therefore you almost don't want to be at the competition you are at, and it's kind of predetermined that... you are not going to [perform] and... I didn't on a number of occasions perform to the level I should have."*

Fundamentally, athletes perceived that striving to maintain a sense of *balance* in their lives would promote their chances of performing. A number of different factors contributed and played key roles in whether athletes could achieve this sense of balance.

**4.3.3.1.1 Sport and life balance: logistical, physical, and psychological conflict.** Some athletes identified the need for different life domains to be manageable in order to perform well, where no areas were too intense or consuming over other areas. An important element for maintaining *balance* related to athletes' time and energy management and whether they were in a position to prioritise sport over other meaningful areas of their lives so they had *"time to rest"* alongside their performances. Athletes reported a decrease in the load of their non-sporting commitments when discussing some of their better performances:

Athlete 9: *"Worlds... or European's they are always in the summer so it's always really good for your well-being because you've had a lot of rest off school or a lot of rest off uni... so when you go home it's just downtime, chill with your family, when you go to [sport] it's [sport], so there's no like everything getting on top of you in summer so you can just concentrate on [sport]... so when you are in the competition, you've just had you know a load of time to prepare, you've had training camps before, then you've also had some downtime at home and then you've gone to the competition with like a clear head ready to compete."*

For some athletes, poor performances often occurred at times where the load of their non-sport commitments had been higher, as highlighted by athlete 1: *"I'd been working all week, I was knackered obviously from working 8 hours a day and trying to fit training in... then the next day going to a competition was probably not the best thing to do"*. Athlete 1 emphasises the physical conflict suffered between the demands of her employment and her subsequent performance.

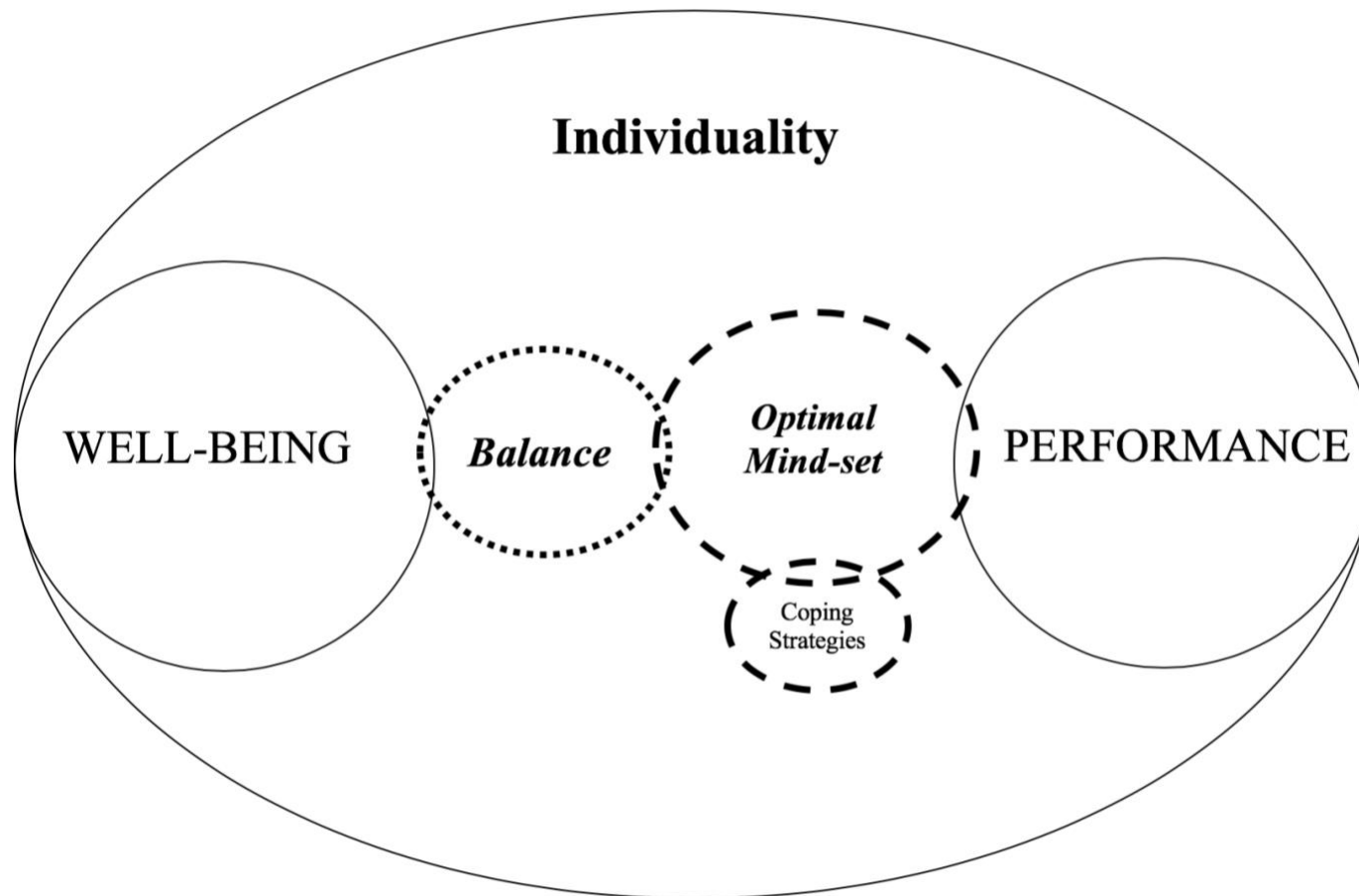


Figure 4.3 Visual representation of the narratives athletes perceived as contributing to the interaction between well-being and sport performance.

Along with the physical demands, participants expressed the detrimental effects their other responsibilities, such as work duties, academic deadlines, or exams, had for performance because of the often-added mental strains and pressures. Athlete 9 reflected on failing to reach her desired performance levels in a match at the Commonwealth Games due to her being distracted by “*thinking about*” an academic exam she had to sit online after the game. Many of the athletes mentioned that better performances occurred at times when they were not distracted by anything and did not have any worries. Being able to focus purely on the task in hand without giving thought to other things was perceived as a positive influence for their sport outcomes, as demonstrated by another of athlete 1’s examples: “*I had no worries... I had no problems and all I could concentrate on was performance that week really and lifting rather than anything else that was happening or going on around me*”.

Many of the distractions identified by athletes related to factors external to their sport (e.g. academic exams), resulting in them being preoccupied with worry about these whilst performing. Other examples of external distractions were given, such as those caused by “*family issues*” or relationship problems, for example athlete 10 expressed that when they had been experiencing a negative relationship “*you just can't perform because there is maybe arguments within, you are not one hundred percent focused on what is in hand... you've got outside influences*”.

Some athletes also discussed some sport-related concerns they felt had been responsible for distractions on some occasions when performance was poor. Athlete 1 stated: “*if I'm injured all I'm thinking about in my head was I hope my knee holds out and I'm constantly thinking about that rather than thinking about my lift and my technique*”. Athlete 5 discussed how the confidence in her ability to complete the skills required in her sport had materialised as a distraction previously: “*if you're not happy with a skill and that's playing on your mind then that definitely usually shows up in competition when you're like put under that pressure*”. Distractions surfacing through different means were all perceived to interfere with the athletes’ technical thoughts and create detrimental performance influences.

**4.3.1.1.2 Sport and life balance: Secondary benefits of second careers.** Despite the struggle to balance multiple life areas, these non-sport employment or education commitments were considered essential in the pursuit of personal development for a future away from sport participation, or for generating an income to live with financial autonomy and independence. These activities could not be suppressed or stopped because of sport. Athletes were either actively earning a living or striving towards professional, college or degree level qualifications. Regardless of the difficulties sometimes faced in balancing their energy, mental capacity and

resources, athletes expressed a positive view relating to engaging in different life aspects. Essentially having multiple foci was perceived as beneficial for performance:

Athlete 8: *“For me last season... I was playing, coaching, and I was doing a part-time PhD, and I was doing lecturing and I had all these different identities and all these different areas, but it was actually probably one of the best seasons I've had in terms of performance and... well-being wise I probably was quite happy as well... I think for me being busy and having all those different identities does probably have an impact on my performance.”*

Indication was highlighted as to the potential for these other domains to transfer negatively into their sport. When discussing her experiences, athlete 3 revealed how a bad day at university could result in a bad days training: *“If I'd had a rubbish lecture or got rubbish results, I was already kind of like feeling a bit like not in the best mindset to come in and do good training”*. When partaking in pursuits alongside sport athlete 9 emphasised that these should be *“something that won't contradict with your [sport] schedule or won't get in the way, won't take up may be too much room in your head”*.

These thoughts highlight that, although there are potentially some obvious stresses and strains that would accompany juggling all of these pursuits simultaneously, athletes may be able to engage in activities, whether these are recreational or meaningful quests, alongside sport. The key here is the organisation that would need to occur logistically and the management to separate the domains to prevent the likelihood of damaging training or performance crossover consequences and promote performance successes.

Both the desirable and essential benefits associated with undertaking further educational courses or engaging in employment are recognised, but the athletes also gained secondary benefits through involvement in these other life domains. For example, although sport was deemed highly important to athletes, most believed having something else to focus on outside sport enabled them to *“escape”* from the intensity of their sport at the elite level for a period of time, as recalled by athlete 6 in this instance following embarking upon his personal training career:

*“It helps like come away from it a bit so you can like switch off. Because if you're dead like embedded in your sport... it can sometimes get a bit too much... you start like losing touch with your friends and then in the sport it becomes like this critical thing like if you don't do everything it's the end of the world. So if you can sort of step away from that... and see other things and that it's not the end of the world, then you can kind of relax a little bit and if you relax you'll do better.”*

Essentially, his time away doing other things helped to maintain perspective of the importance of sport in the bigger picture of his life, ensuring that his life and purpose were not solely defined by the sport he did and his identity as an athlete.

The different areas of the athletes' lives were not just important for self-sufficiency or for the future but were considered positive for performance because of the additional life elements they provided, and the contribution made towards a sense of *balance*. A one-dimensional life, as experienced by some of the athletes at different periods, was identified as often leaving them feeling overwhelmed, obsessive and "*bogged down*" by the sport. Athlete 6 recalled a time where he had left work to focus purely on his sport, commenting: "*all my focus was on [sport] and it was all I thought about, all I did, and I didn't really enjoy it as much anymore*". Decreased enjoyment and motivation to train and perform led this athlete to feel out of balance, which likely had detrimental performance effects. This particular example highlighted having something different [a second career] to channel energy into alongside sport helped them to get away from the associated sport-related stresses. Similarly, athlete 2 suggested that they:

*"need almost like distractions outside training for training to go well... as long as I don't think about training and competitions all the time I'm usually in a better place... I don't like it to be my entire life"*

These other life domains were perceived to provide variety and freshness day-to-day, and keep athletes interested and driven to put in the hours necessary for training and performing at the elite level.

**4.3.1.1.3 Sport and life balance: The role of the support network for focus on performance.** *Balance* was the dominant theme that athletes seemed to be striving for within their stories. To achieve this sense of management within life, athletes often commented on the significance of their support network and the key role it had in terms of supporting their well-being for performance. The athletes' stories reflected the notion that the provision of support, via different members of their own network, promoted *balance* and well-being by alleviating potential concerns or facilitating with areas of relevance so that their predominant focus could be their own performance. The athletes discussed receiving support in many ways and from multiple sources. It was important at this stage to consider the present results in the context of frameworks and categories within previous literature in this area. The present study identified some dimensions of social support similar to those identified by Rees and Hardy (2000), which will be mapped throughout this part of the results.

**4.3.1.1.3.1 Personal support network.** Within the well-being – performance relationship, the athletes' personal support network was perceived as particularly useful in helping them to manage their smaller, everyday responsibilities and allowing them to focus their attention towards performance without becoming preoccupied about day-to-day tasks,

either around the time of performance or during the event. The personal support network provided aspects of tangible support (Rees & Hardy, 2000) as athlete 1 reflected:

*“When I was working full-time, obviously if you've got people around you that can help you do other things in other parts of your life to try and make that easier you can concentrate on sport... obviously if you are thinking about other things that you've got to do outside, this has got to be done, that has got to be done, you start to get stressed out because you are thinking about that rather than your performance... it sounds silly but it's little jobs that I need to get done that I didn't have time to do...so like my partner would do it for me or you know he would make sure other things that we needed to do would get done so I could concentrate on the [sport].”*

4.3.1.1.3.2 *Sport and sport science support network.* Although athlete 1 was able to rely on connections within her personal network for daily living management, other athletes' support systems were much more widespread and multifaceted. Athlete 5 recalled the layers of tangible support she received through both her personal and sport-related networks:

*“All of those small details that then add up to the bigger result at the end of the day... Just kind of having people to take that pressure off so knowing that say for example like for myself, the doctors, physios, all of that stuff, they are always there if I need them, they can do anything for me, they're always helpful, so that's obviously one box that is like ticked. Then home wise like kind of just coming home having the right kind of food in the house and making sure we have ice and all things like that, that's kind of like mums kind of job and I mean obviously if she hasn't got it, we can go and get it ourselves, but it's just the small things that just take off like little stresses and pressures really to know that that's kind of done. Then just everybody else kind of, so we have like a sport psychologist that we can go and see within [NGB] and like my personal coach... anybody really at the gym, knowing that you have so many people to kind of, just if you want someone just to chat to or just any advice, they are always there to help, so that's definitely helpful to know that... I think if you had to do all of those outside jobs yourself then, it's just so time-consuming so then it takes that like focus away from the performance.”*

Athlete 5, among other athletes, had a team of individuals who were collectively responsible for providing specific aspects of support and managing these around her, which helped to maintain a sense of *balance* for her performances. When athletes identified the more technical side of the support they received from coaches and sport science disciplines they indicated that a part of *balance* was “*using really good people around you*”. Utilising input from specialists with “*expertise*” meant athletes were also able to maximise the effectiveness of their development in each different area, which was considered to generate “*healthy athletes... happy, faster athletes*”. This multidisciplinary network of sport scientists feeding into the athlete offered broad but well-rounded informational support (Rees & Hardy, 2000) and allowed the athletes to develop certain features considered beneficial for performance, which also indirectly contributed to their well-being. Athlete 4 talked specifically about how working



with a nutritionist was perceived as helpful and fostered his well-being by reducing certain stressors:

*“That helps with the diet when you've got a nutrition plan... So that takes a lot of stress out and I'm in a weight-making sport and it takes a lot of pressure off worrying about what I want to eat. Also, it allows me to enjoy my food rather than just cutting back on meals, so I can eat correctly.”*

Other participants also identified personal skills coaches for sport specific guidance, physiotherapists and sports massage therapists to manage injury, doctors for health support, biomechanists for mechanical and flexibility work, strength and conditioning coaches, sport psychologists, sponsors for financial support, and teammates for moral support. The unique support provision (predominantly tangible and informational support) of each member of the network, all linked together, was perceived to promote well-being by providing a climate of preparation, with an opportunity for complete focus on performance, as athlete 3 highlighted:

*“The funded athletes where they've got enough money that they don't need to work they can just train full-time, they are either living at home or living in their own place... they've been given meal plans to ensure that they are healthy...fit and they've got training programs about how many times they're going to go in the gym, how many times they are going to do strength and conditioning, and then they've got like the people there that if they are injured and they need to see someone like that's kind of all there. I think that's probably the best...when you're put in an environment where you don't have to worry about anything but your performance, everything else is taken care of.”*

4.3.1.1.3.3 *Someone to talk to: closeness, empathy, knowledge, experience, and unity.*

Alongside the multidisciplinary support, the majority of participants mentioned that much of the support they received was more general and from people who they had closer, more personal connections with. Family members and friends were identified under this category, but many of the athletes, including athlete 8, also referred to their personal skills coach as a provider of personal or emotional support (Rees & Hardy, 2000), as well as the obvious technical (informational) support side: *“my coach that I was working with... he'd always talk to me about you know anything going on in my life not just the sport side of things.”* Over half of the athletes indicated the importance of having *someone to talk to* within the support network as another key element essential for maintaining well-being for performance. Athlete 9 discussed a particular incident involving her break up with her previous partner at the same time one of her teammates was experiencing a relationship breakdown:

*“I broke up with mine... I didn't tell anyone and just like kind of got on with it... I kind of like internally dealt with it... she like told the whole team and then the whole team was aware of it so they were maybe a little bit more sensitive around her and even though she wasn't like happy in herself, she still played well because everybody understood like her surroundings and like what was going on with her and because I*

*didn't tell anyone I was just like secretly really angry inside and then I think that kind of affected the way that I played."*

The importance of talking through underlying issues and sharing feelings when going through difficult times was evident in this account as affecting the way athlete 9 dealt with this life event and the detrimental impact she felt it had on her performance. Although both athletes dealt with similar circumstances in different ways, it appears she had some resentment for not approaching the situation in the same way as her teammate and perceived a potentially more positive performance outcome had she addressed her feelings through others.

A major indicator of *who* athletes would discuss things with related to whether they felt the person truly understood their situation and what they were going through, highlighted by the previous example of teammates. The coach also often came under this category as many athletes felt they had developed particularly close relationships with them so looked to them when seeking emotional support or empathetic advice, as explained by athlete 2: *"I've got my coaches in Liverpool and then my coaches from the old gym because we are more like friends now so we can talk about it and they understand the situation"*. Athlete 2, among others, expressed that talking with family members was not necessarily appropriate as athletes felt they did not fully understand particular things *"they are good for whenever I've had good training sessions to get support from but not when I've had a bad training session because they don't really understand... I just don't think they get it"*. Although it is clear that family offered important general support, athletes commonly seemed to utilise other sport-related sources regarding their sport-specific issues.

Two athletes had an amalgamation of these factors as they felt they had family members who they could talk to authentically about sport-related things because of their knowledge and experience in the sport. Athlete 8 stated: *"my parents both were table tennis players as well so they have a good knowledge of the sport so I can use them if I'm you know struggling with anything"*. Athlete 7 explained:

*"my wife of 19 years...has kind of grown up with me in this environment... if you've got like an understanding partner or spouse... I think if you've got someone that understands... it doesn't mean that they are always happy with it but they kind of understand that part of the territory."*

The common premise here seems related to the level of the supporting member's experience within the sport. Again, relating to whether the athlete felt the person was knowledgeable and understood their situation, either as a direct result of being personally involved in the sport, or indirectly through providing significant support to someone over a long period of time and becoming familiar with the sport demands.

Some athletes also revealed their support network made them feel like they were not alone in their journey and struggles. In particular those in individual sports felt their support network helped with motivation as the majority of their training was done alone. Athlete 6 recalled: *“not feeling like you're on your own doing it because... it does sometimes feel like it's just me, like me against the world, but like having people around it really does help”*.

The support network was significant to the athlete's performance as it helped athletes logistically to balance and manage their lives, but also more personally through having compassionate and consistent members to rely upon. These factors were perceived as having the potential to influence performance indirectly through their impact upon athletes' well-being.

**4.3.1.1.4 Happy versus unhappy.** An additional feature that emerged within athletes' well-being and performance stories, which appeared relevant to this idea of *balance* due to its indication of well-being was *happiness*. Athletes typically expressed the perception that *“generally being quite happy”*, *“content in yourself”*, and *“happy about what you're doing”* would have a *“positive impact on performance”*. Similarly, in reverse, for a number of athletes some experiences of poor performances were associated with feeling unhappy, as athlete 4 remembers:

*“I had a negative feeling towards the sport, I had a negative feeling towards dieting, I didn't want to do it, when I was making weight I had negative feelings so I didn't want to get up in the morning, I didn't want to train it was just negative, everything was negative and then I went out and I got beat.”*

Happiness was often perceived as being related to how the athletes felt their lives were going, for example athlete 6 stated he *“was quite happy with things in outside life, with like my external life”* and then he *“went into the competition... gave a good performance and... managed to win a bronze medal.”* Similarly, athlete 10 suggested that *“outside of the sport if you know your life is sort of going well and... you are happy then it comes across into it”*. Different parts of the athletes' lives were considered to contribute to a perception of satisfaction. Athlete 10 stated having *“a good social life, I had a good family life, everything just seemed to be going well, I was constantly happy... I was just in a happy place definitely”*. The athletes' perceived that this satisfaction then encouraged their performances because *“if you are in a positive frame of mind, then your outlook on everything is a bit more positive, so you are willing to train that 10% harder”* (athlete 10).

This idea of correspondence between levels of happiness and performance was not upheld within other experiences in the athletes' stories. Athlete 8, among others, expressed her

views that to consider the relationship between well-being and performance as direct would be simplistic:

*“I don't think it's as simple as if you are happy you're going to perform well, I think that's ridiculous! I just don't think that's how it works at all. I think maybe if you are in a good place in your life and you're enjoying what you're doing then there is that possibility that you could just relax a bit more and play well. But like I said I think there's loads of mediating factors that probably affect it...you know, what relationships you've got at the moment, what work you're doing, how stressed you are, whether you've got deadlines sort of thing, life and family incidents things like that all have an effect on it.”*

Athlete 8 highlights that this positive affective state and feelings may increase the chances of performing well, but would not guarantee success. Other athletes' stories also implied that to be happy and to have stable well-being was not always enough to determine successful performance because of times where despite their positive states, their performances were not a reflection of these. This storyline of *balance* could not appropriately portray instances aligned with the second perspective mentioned above. Athlete 8, among others, also perceived that happiness was not imperative for good performance and these situations likely have other factors influencing their performance:

*“I don't necessarily think you need to be kind of that happy or content in your life to perform well. I suppose confidence is probably one of the biggest things just even if you're feeling upset or down, if you've still got confidence in your game to play well, confidence to beat that particular opponent then you're probably likely to perform.”*

The deviation in these suggestions from the idea that well-being and performance could coincide showed that the original narrative of *balance* was not the only explanation for the relationship, as it was an insufficient representation for a number of experiences of the interaction that the athletes had been through. Another narrative was constructed to rationalise athletes' well-being and performance experiences within occurrences aligned with the second perspective, which will now be presented.

**4.3.3.2 A supplementary narrative of an optimal mind-set.** The narrative analysis outcomes so far illustrate the earlier mentioned first perspective where well-being and performance were aligned. Athletes believed a state of perceived well-being and *balance* to be positive for their performance and absence of this to be negative for their performance. This idea may explain why athletes discussed attempting to maintain this sense of *balance* because it was perceived as good for them and their performance. This fundamental *balance* narrative was however challenged as athletes made sense of some discrepancies in their experiences, revealing an additional secondary plot. Athletes could recall times where this notion of a link between the two factors had not held and there seemed to be either no relationship, or a negative one, between well-being and performance, revealing that this *balance* narrative did not always

help them explain their experiences. To understand the experiences representative of the second perspective, where characteristics or outcomes of performance appeared independent from well-being state, athletes constructed an alternative narrative. This supplementary story related to the idea of an *optimal mind-set* and this narrative appeared as the principal arbitrating feature within the well-being and performance interaction (see figure 4.3).

**4.3.3.2.1 High well-being and low performance levels: *Calm created the storm.*** To complement the perceptions of *balance* to understand experiences within this relationship, the *optimal mind-set* narrative attempted to find some coherence by accounting for times of discrepancy between well-being and performance. Athlete 6 recounted an example where his performance was poor despite having what he perceived to be a high well-being:

*“The Greek open 2014, everything was brilliant... we were staying on this five-star resort... it was a really nice place I was really enjoying the situation, this was the start of the year so I had my full budget for the year competition-wise, I wasn't worried about money, wasn't really worried about anything else, there was no pressure on the competition I thought it was going to be a really good competition, I'd go out there, fight, enjoy it. I was having a really good time in the hotel, five-star resort, sitting by the pool just chilling, really relaxed... got into the ring and I was just fighting terrible. In the fight I was just really bad, kept making all the wrong decisions. I fought the guy, he was like really big, but I was a lot quicker than him, but I just couldn't catch him I was just throwing all the wrong shots telegraphing my shots, so he knew I was coming, like reacting to him when I should have just stuck to my game plan.”*

Although this athlete perceived a balanced well-being and circumstances representative of happiness surrounding their current situation, their performance did not coincide as expected. When asked to consider reasons behind similar instances, other athletes essentially talked about the potential for their high state of well-being and being “*in a good place*” to evoke more “*relaxed*” thought processes and responses. In some instances, athletes perceived that an appropriate mental state was not generated because of a “*what will be will be*” attitude and felt that this contented approach could have related to their sub-optimal performance outcomes.

**4.3.3.2.2 High well-being and low performance levels: *Happy as I am.*** Athlete 9 similarly referred to the relaxed state she felt when putting in perspective all the “*other things to fall back on*” (e.g. good family relationships, a good relationship with partner, studying at university) away from the sport that she had in case she didn't “*do well in sport*”. These other positive features of the athlete's life were perceived to take some pressure away from needing a performance to feel successful, as she was genuinely happy anyway despite the performance outcomes. Although this state of general life satisfaction may have been positive for the well-being of the athletes, on occasion it created complacency where athletes had been “*a bit blasé with the performance*” and this mind-set resulted in sub-optimal performance.

**4.3.3.2.3 High well-being and low performance levels: No pressure.** Another explanation for not generating the mental state required to perform optimally related to suggestions that a contented state of well-being and life situation meant athletes weren't being challenged or forced to produce this *optimal mind-set* that is critical to performance. Athlete 7 suggested:

*"If everything else is going really, really well, sometimes you don't actually look at performance as important, as I need to run this race to win some money because if I don't win some money I'm not going to pay the rent, if I don't pay the rent I haven't got a house..."*

As the repercussions for poorer performances were not significant and would not have immediate negative life consequences, some athletes perceived this lack of urgency for results to have negative effects on their focus for performance. The athletes felt that they weren't necessarily in need of the personal or financial rewards that came with performing well. Athlete 7 suggested that although having pressure caused by the fact that whether or not he was able to provide for himself and his family financially was dependent on his performance results, and that this would *"impact your well-being to a degree"*, he also indicated that this urgency *"might help your performance process"*.

**4.3.3.2.4 High well-being and low performance levels: Mind over body.** These stories of high well-being and sub-optimal performance were indicative of a failure to create an appropriate mind-set or mental approach to promote good performances. Many athletes also stressed the view that their mental state was potentially the most important factor to enable good performance, over and above their physical condition. Athlete 3 stated: *"personally I don't think it matters how well you are physically capable, like capable of performing, if your mindset, if you're not in a good place mentally it matters"*. When other athletes spoke about this concept they reiterated that the mental side was necessary to push through the physically tough times and that the same could not be said when considering this from the other way around. In essence, within this side of the athletes' narratives they perceived that regardless of whether well-being, life and all contributing factors were going well, if relevant strategies to achieve a mental state promoting high level performances were bypassed or were not obtained, high level performance would not follow. This point also suggests that particular strategies to create a facilitative mind-set for performance are required even when well-being is high.

**4.3.3.2.5 Low well-being and high performance levels: Coping mechanisms.** Other incidences emerged within athletes' stories where the *balance* narrative again offered an insufficient account of the athletes' reality. Examples of well-being and performance discrepancies were also experienced the other way around and were again rationalised in terms

of the athletes' *mind-set*. Often within these instances of low well-being and high performance levels, athletes employed particular mental strategies that assisted them in achieving a psychological state suitable to perform well. In order to cope with the surrounding circumstances *and* perform, athletes had to possess a mind-set that allowed them to cope and implement the relevant means for performance.

4.3.3.2.5.1 *Motivation: A point to prove*. One psychological aspect that appeared useful to cope in these situations to generate a favourable *mind-set* was self-motivation. Athlete 5, among others, drew upon an experience where performance levels were high independent of the fact that her well-being was far from ideal, illustrating an example where the narrative of *balance* was unfitting:

*"I was going through like a rough time with my coach and ended up like losing my coach... There was a stage where she wasn't allowed in [training] to be with me and I was coming up to Europeans... the two weeks that I had at camp leading into Europeans I was like mentally, I was just in an awful place and somehow I managed to get it together and compete really well at the Euros... it was definitely the worst mentally that I've ever been because my head was on so many different things, it was not even really focused on [sport] at all... it affected my performance in training but I managed to get it together when it came to competing."*

Having a lower well-being was, at times, perceived to drive athletes to do well, as athlete 5 mentioned it gave her the motivation to "*prove a point*" to herself, and others, that "*you can still do it [perform] with everything else that's going on around you*".

4.3.3.2.5.2 *Motivation: making them proud*. Athletes also used significant negative personal events to foster motivation in other ways. In some of the situations discussed by the athletes a member of their family had very recently passed away, for example athlete 6: "*The Spanish open, my dad just died, and I was a bit, well obviously I was quite a bit down from that*". Considering this tragic circumstance, athlete 6 actually competed and performed well winning "*a bronze medal*". When asked to rationalise examples like this, athletes suggested they had used the loss of their family member as motivation, in a sense that they were determined to perform for them to make them proud. Athlete 6 recalled:

*"I didn't really let it affect me I kind of carried on with training and went for it... I sort of told myself that he wouldn't want me chucking everything away just because I was upset about it or instead of using it, letting it bring me down, I used it to build me up a bit and I sort of just focused on training and went for it and I did well."*

It is evident here that again the athlete had to create the right frame of mind to enter into their performance if they had a chance of success, due to the obvious negative repercussions of family loss. This athlete used the emotions attached to his bereavement as a coping strategy to overcome the associated adversity, in an attempt to prevent this event from affecting his performance.

4.3.3.2.5.3 *A new outlook and regaining control.* Other strategies employed by athletes to construct the *optimal mind-set* for performing with well-being issues included justification of their worries. Athletes reiterated to themselves that they were not the only one with issues or things going on, and that every competitor would have something of their own to deal with. Rather than the actual worries themselves, the determining factor was how they responded to the concerns, and whether they allowed them to have an effect, as athlete 4 explained:

*‘They [competitors] are not going to have the greatest camp, everyone's got worries. If you think you know, your opponent is not going to have worries then you'll be wrong so it's not about not having worries it's about learning to deal with the worries and carrying on you know through fear, it's carrying on through that and overcoming these worries.’*

Athlete 4 reflected on a good performance where he “*knocked out that lad*” even though there were issues present causing his well-being to suffer:

*‘I was having a few like stressing moments... I was arguing with one of my mates, so I was just getting a bit stressed out and I weren't sleeping good and because sleeps very important to me, if I don't have enough sleep then it alters my mood a lot... when I was in the gym I was feeling slow.’*

In this instance, and within other athletes’ experiences, despite dealing with some negative personal factors or circumstances, the athlete generated an *optimal mind-set* to approach performance, through developing an ability to alter his outlook on situations and apply relevant mental strategies:

*‘Because I've worked on my mental state I managed to change the way I looked at things and go in and perform well... it is important if you can look at things and improve so it's not always about how you feel because you can change that, it's just about training your mind to be able to know where you're at and understand yourself.’*

Being able to adjust how a situation is viewed, and although there are often many contributing factors all with the potential to influence performance, athletes were still able to create a positive mind-set that worked for them and perform well. On these occasions, athletes appeared able to regain control within the sporting environment, regardless of perhaps feeling a sense of chaos or struggle in other areas. In fact, some athletes triumphed despite these other parts of their lives not being at their best because of their application of these methods of coping.

4.3.3.2.5.4 *Necessary success.* As discussed earlier, athletes again drew upon the idea that the urgency for the performance regularly played a key role in the outcome. When well-being was low, athletes perceived that often they placed more of an emphasis on doing well in their sport to enhance their well-being through performance success, as indicated by athlete 9: “*if everything is on the line, like if nothing is going well and you are like well I need this to go well then you're a bit more, sometimes you are a bit more inclined to win*”. The perspective of



what the performance would mean for them helped them to create a psychological environment for a successful performance opportunity.

4.3.3.2.5.5 *Sport is well-being*. The athletes talked about using their sport performances at times to get away from their undesirable elements of their lives, as mentioned by athlete 8:

*“When you're performing it's kind of like sometimes a bit of an escape from the rest of your life... at that moment you have to think you know I'm not in an exam, I don't have to write this assignment, you are there to do that particular job.”*

Athlete 7 reflected on how he used competing as a break from his low well-being:

*“There were a few times when I was really, really busy but probably not in a great place well-being wise, but actually the performance was the release and it was an escape from the well-being... when things are really shit and you know other things are going on, turning up to a race and having a bit of time that is yours, and actually the performance becomes your well-being for that hour you know because you get to put your music on and warm up and the race is just you and it's actually an escape from what else is going on.”*

The ability to adopt this type of perspective and actually use performance as a facilitator for well-being was key for generating successful performances under difficult personal circumstances. Essentially, athletes made the best they could out of less than ideal situations. Athlete 7 emphasised that during periods of lower well-being, if he was *“clever enough to see the performance as the release and actually see it as a positive thing that you are out there”* it was still possible for him to perform well, but unlikely to *“perform to the best of your ability”* due to everything else going on around. Through these types of examples, athletes demonstrated again that their perceptions, and the way they viewed situations, had some effect on the type of responses they had. This suggested that the *mind-set* or mental approach may be critical when considering the interaction between well-being and performance, particularly when well-being is low.

4.3.3.2.5.6 *Emotional control and confrontation: Blocking out*. At similar times of low well-being some athletes recalled adopting a method of *“blocking out”* their tough circumstances from their thoughts for the duration of their performance, for example athlete 1 expressed: *“if there is a lot going on in your life... when you come to competitions you've kind of got to switch off from that and concentrate on the performance”*. Strategies such as switching their problems off allowed the athletes to eliminate or minimise the distractions related to their well-being issues, to limit interference to their focus whilst performing so they could, as athlete 9 stated: *“just play and just forget about everything”*. The blocking out method was used to generate an appropriate mind-set for performance and this is illustrated in grief as discussed by two athletes (athletes 8 and 10 respectively) who had lost family members they were close to at times where they performed well. They each recalled occurrences of how they channelled

their focus into their performance for that tough time period and blocked out the difficult circumstances to help them to perform well:

*“I went to world schools and my granddad was really ill and then when I'd found out he died I just thought you know just forget it, well obviously not forget it but just don't think about it and just focus on this... think about doing something well in your life and you know making family and that proud of what you've done.”*

*“I just focused myself on that and took myself away from everything else that was going on. I was able to pull out good performances and get what I needed out of competitions... you just grit your teeth for a bit. I probably ignored them if I'm honest with you I probably just pushed it all down... was probably selfish maybe for that two weeks and just said like this is what I've got to do and I'm just going to have to grin and bear it, keep my head down, stay away from everything and just focus on me for a couple of weeks maybe.”*

These athletes experienced loss under different types of circumstances, yet both adopted an approach of trying to temporarily forget their loss in an attempt to yield the correct mind-set. The athletes referred to a few explanations of how they were able to block out such significant and devastating events to go on to perform well, or even remove the distractions that were playing on their mind. In some instances, the process was more of a natural reaction that had been developed over time with experience, for example athlete 10 talked about *“shutting down emotions for that next like couple of hours... I've done it for that long as well like I've always sort of naturally done it, I don't actually think about it”*. Others indicated that due to their mind being filled with technical and tactical thoughts relevant to the details of their performance, they did not believe that they had free mental capacity to dedicate to those other distracting or and potentially emotional thoughts, for example athlete 9 mentioned:

*“You've got to think about a lot of things like there's a load of things that can factor into it, you've got to think of like what the referees doing, what the other players are doing, what your players are doing, what you need to do and I think all of those things just kind of like takeover in your brain, I don't think there's as much brain space to really like think about other things other than the game.”*

Again, this example related to what was going on *in their head* and their mind-set. If they were able to replace their thoughts of life events with technical prompts, the distractions could be put on hold for a period of time until performance was over. If they could not replace the distracting thoughts these were perceived as likely to have affected their performance outcomes.

The athletes seemed aware that they were blocking things out for a short period of time to allow themselves the best chance of performing and that they weren't completely liberating themselves of things without actually dealing with them and their root causes, as explained by athlete 10:

*“I'm not going to forget about it, and not just going to like bury my head in the sand and forget about it for the next month, I'm only forgetting about it for a few hours and like I'll sort of let it go and then pick it up again once training is done.”*

Athletes mentioned that although blocking things out and escaping from real life for performance was a technique that had been successful at times, it was healthy to then deal with whatever the athletes had been blocking out post-performance and work on attending to and resolving these situations and their associated emotions, as indicated by athlete 10:

*“I got what I needed done and then I had to turn around straight away and face up to what you had maybe put off in the meantime... you can't just bury your head in the sand you know you can maybe put things off for short periods of time you can't just run away from everything, you've got to face it.”*

Athletes who remembered using these techniques to cope with distractions and negative life factors did mention that they felt these methods of coping may not have worked as well had they been younger, for example athlete 8:

*“I think when you're really young it's probably quite difficult because your emotions are quite high all the time, as you gradually get older I think you probably do learn to control your emotions a little bit more, so I think it's something you probably learn to do over time.”*

Being able to put major events and distractions aside and still perform well may not be achievable for younger athletes due to them still developing and understanding themselves and ways of regulating their emotions and dealing with things. Athlete 7 stated *“when you are younger if you are having a bad time then you think everything is bad”*, so developing perspective and self-awareness would play a key role in a person's ability to perform whilst their well-being, and subsequently their mental space, is affected by potentially negative factors.

**4.3.3.3 Individuality.** Throughout all of the athletes' stories and across the narratives, many of the athletes discussed the individual nature of the relationship in terms of the extent to which well-being has an effect on performance. This suggestion referred to the view that fundamentally well-being is an individualised concept as illustrated by athlete 10: *“I don't think it's the same for anyone really, I think everyone is different, so my idea of happy is probably completely different to your idea of happy”*. This point was emphasised further by athlete 7 in terms of not only the specific content of a person's well-being, but also the individual perception about the expected or *normal* standard of each contributor:

*“Different people are obviously at different levels, but to some people a lower level in something could be their maximum or their optimum for that part of their well-being. But other people you know, they need to be higher on that scale and you know that's one thing that they need to work on. Others... that might not even be a factor, or it's not even something that impacts them.”*

Athletes expressed that the relationship is “*complex because it can differ from person to person*” (athlete 3), and that the level of well-being needed for performance is individual because “*different people need different things*” (athlete 7). Well-being was perceived to influence whether an athlete performed well depending on the degree to which it influenced their mind-set at that time, and subsequently how well they were able to cope with the level of well-being they had. Athletes proposed that different people with similar sets of problems cope in different ways and that as each person is an individual, their own abilities and weaknesses, limitations and strengths would mediate their ability to cope with the interaction of their well-being and their performance. Athlete 1 inferred that the extent that well-being could influence performance was something that could be adapted to: “*you’ve got to learn to like, you know, kind of cope and deal with what you’ve got*”. Athlete 9 also supported this idea that the relationship “*depends on the person and how well they can cope with things in their lives... Because if they can’t cope with it then it’s going to affect their performance, but if they can cope with it then I don’t think it will*”. People handle different levels of distractions in different ways, with different levels of imbalance. So ultimately an individual’s coping characteristics and resources were perceived to result in different abilities to deal with whatever was happening in their lives. The athletes presented this idea as a supplementary explanation for when the *balance* narrative didn’t hold, in instances where well-being was not necessarily evident in good performances. The presentation of particular circumstances was perceived to result in different outcomes for different athletes due to the individual ability to be able to cope with said conditions. This idea still helped the athletes explain what they saw in their experience even when the balance narrative didn’t make sense.

#### **4.4 Discussion**

The focus of the current chapter of this thesis was to explore the narratives of ten competitive athletes around their perceptions and experiences of the relationship between well-being and sport performance, with a specific focus on the nature of the interaction and any interceding features perceived as crucial within the interaction. The results of this study highlight that athletes understand well-being to be multi-dimensional and theoretically eclectic. Findings indicated perceptions of a complicated relationship between well-being and sport performance. An underlying narrative emerged with a primary belief that *balance* within athletes’ lives and their associated life demands, was perceived as fundamental to the facilitation of sport performance. Members of the support network surrounding the athlete were perceived as playing key roles in shaping this *balance* narrative and were considered a central part within the well-being – performance relationship. Complementary to this *balance* plot was

a narrative of *optimal mind-set*, which was regarded as the key feature regulating the interaction of well-being with performance. Additionally, a running theme across all athletes' stories and throughout the identified narratives was the significance of individuality, upon the factors present within the relationship, and the extent of the relationship itself.

Regarding the well-being – performance relationship, in general, the current research echoes the conclusions of previous quantitative work in this field, examined systematically in chapter three, regarding evidence that the interaction is complex. These previous methods searched only for a link between the two constructs, estimating the strength of association (e.g. Hogarth et al., 2015). Consistencies with this earlier work are highlighted in the present results, as a number of different interactions between well-being and sport performance were discussed by the athletes, in line with two perspectives. The current research primarily advances knowledge as it goes beyond establishing the existence of a relationship or identifying what *type* of relationship exists. It is the first study to document details regarding athletes' narratives *about* the relationship between well-being and sport performance, and how they make sense of their thoughts on *what* occurs within, and *contributes to*, this interaction. By exploring the relationship from a different perspective according to athletes' perceptions, the stories they constructed allowed for illumination about the *ways in which* this relationship was considered intricate. The relationship presents as problematic as there were both times where the link appeared simple and straightforward and occasions where it did not. Athletes perceived that often higher well-being had helped them to perform well, just as lower well-being prevented them from performing to their best, but at times the two constructs did not interrelate in this way. These intricacies are initially revealed by the current research as athletes' experiences represent multiple narratives, *balance* and *optimal mind-set*. These two stories interacted with each other to assist the athletes in understanding how their lives have reflected the ways in which well-being and performance associate. The two narratives described by elite athletes extend knowledge about the interlinking elements recognised as influential in complicating and regulating this interaction, as they offer insight into perceptions from which athletes are operating surrounding their experiences of this relationship. Becoming familiar with these stories facilitates the understanding of the athletes' adopted behaviours and will inform the way athletes could be supported in their navigation of this relationship in the future.

The current study reflects previous literature which highlights that balance of sport with life is significant to, and often accountable for, variability in performance (e.g. Pink et al., 2015). Advancing knowledge, the findings of the current study indicate perceptions that life balance plays a key role in the relationship between well-being and sport performance because

it is seen as fundamental for well-being. For example, when athletes had perceptions of a balanced life, this induced more positive feelings and well-being, which promoted performances, and where these perceptions were not upheld, performances would suffer. These findings offer further support for the value of a balanced life within elite sport by highlighting that athletes may experience dual benefits, both personal and athletic, if they can generate this sense of balance. A central part of the balance narrative was that athletes were actively engaging in other activities alongside sport. Despite the challenges of integrating the demands of training and competition with general life evident in athletes' experiences, the current study suggests that other non-sport domains were deemed instrumental to performance, extending current evidence (Pink et al., 2015; Pink, Lonie & Saunders, 2018). Congruent with previous findings (McKenzie, Hodge & Carnachan, 2003; Price et al., 2010; MacCosham et al., 2015) athletes in the present study perceived their performance was positively influenced by their engagement in meaningful educational and vocational pursuits outside sport. Supporting other athletes' experiences (Douglas & Carless, 2006), athletes in the current study in-fact often performed well when they were engaging in their other identities and had multiple responsibilities and activities to focus on, which appeared to manifest a sense of synergy across their life domains. Athletes recognised that striving for a well-rounded life where they were more than just a sportsperson was positive for them and their performance, which is consistent with holistic views of athletic development and performance within the literature (e.g. Miller & Kerr, 2002; Bennie & O'Connor, 2010; Price et al., 2010). Specifically, these other activities were considered to provide athletes with a break and a means of escapism from the elite sport 'bubble' that was truly needed at times to maintain well-being, confirming the preceding suggestion of professional rugby players that reported engaging in studying was a good way to switch off from sport (Kruyt, 2017). Time out from sport facilitated variety in their daily schedule, which prevented them from feeling stale and promoted the maintenance of interest in their sport, and also provided opportunities for the rejuvenation of motivation, which consolidates other research (McKenzie et al., 2003; Price et al., 2010; MacCosham et al., 2015). Athletes appeared to be using their other identities as resources to attain balance and maintain well-being to survive within their athletic world (Côté, 2005).

Building on existing knowledge about dual career development (Pink et al., 2015), in the current study, these additional domains were also perceived to prevent athletes developing an obsessive, one-dimensional focus on sport, which had proven to be detrimental for performance in some of their experiences. Paralleling the proposed stance of Performance Lifestyle practitioners (Brady & Grenville-Cleave, 2017), instead alternative life areas assisted

athletes to realign their priorities and formulate a realistic perspective of sport and its meaning in the picture of their lives overall. Having a healthy perspective where aspects akin to elements of psychological well-being (Ryff, 1989), such as purpose, meaning and fulfilment in life are derived from more than sporting success alone was actually perceived to breed better performances perhaps because of the sense of longer-term preparation it provided. This perception confronts the commonly acknowledged *performance narrative* within high level sport where the emphasis suggests the pursuit of success is characteristic of narrow focus and sacrifice, sole dedication to sport performance with exclusion of other life areas, and a foreclosed identity (Douglas & Carless, 2006). Having multiple dimensions in life and engaging in these different identities was valuable in the current study as they were perceived as advantageous for coping with situations of inevitable anxiety and tension associated with the high-level sports performance environment (Lundqvist & Sandin, 2014).

The current findings related to the story of *balance* highlight the potential for multiple advantages if athletes are encouraged to pursue other areas of development. The benefits from having multiple domains have the potential to promote good mental health for athletes actively engaged in sport, may be positive for post-sport life following retirement, which both may indirectly facilitate performances. There is potential for coaches to receive this notion with scepticism and caution and there may be hesitation in their expression of agreement and support for these other endeavours because of the expected negative connotations for performance. To implement this in reality, would require further athlete and coach-education about the advantages for athletes regarding their long-term personal development, but also the contribution that these external areas can have towards an overall sense of well-being, and that there is potential for performance to be enhanced indirectly through these means. Facilitating mutual understanding and knowledge about the benefits of non-sport domains for athletes and coaches where appropriate and possible, may also breed a resentment-free, supportive coach-athlete relationship that may be beneficial for both well-being and performance. If coaches can see and treat athletes fundamentally as humans, with care and consideration for their non-sport life aspects, respect may be solidified, performance may be enhanced, and athletes will likely feel a generally well-rounded sense of well-being.

Recognition has previously been given to the value gained through alternative activities as these arenas can present additional opportunities for positive experiences to occur (Brady & Grenville-Cleave, 2017). In-line with the broaden-and-build theory of positive emotions, regular positive emotions can result in adaptive responses such as the development to attentional repertoires, which can enhance the application of personal resources (Fredrickson,

1998). Encouraging dual-career development or even just engagement in enjoyable recreations, would provide more opportunity for these resources to develop. Although the current study illustrates the benefits of other life domains for athletes' well-being and their performance, it also demonstrates how these other realms may allow opportunities for negative experiences to emerge that may then filter into the sporting domain. For example, where athletes experienced bad days at work or university, this was at times perceived to infiltrate into their approach to the training sessions that followed. By raising awareness that there is also possibility for negative issues in non-sport domains to leak into sport, athletes' alertness to the identification of these types of concerns may be heightened, meaning they may be more inclined to seek support in compartmentalising between the domains where it is appropriate and healthy to do so.

Reflecting previous literature, the balance of the current elite athletes' lives was considerably unequal with respect to time spent training versus time spent on other things (Price et al., 2010) because of the devotion of time needed to become skilled enough to succeed in their sport (Ericsson, Prietula & Cokely, 2007). Another central part of the athletes' balance narrative was their ability to effectively *manage* the demands of their different life domains alongside each other, which often involved temporarily sacrificing or decreasing the load of the other domains for the benefit of sport. It has been suggested that high-level athletes have difficulties and challenges when it comes to balancing their sport with their casual and leisure lives, and they often have unbalanced lives due to the significant demands of their sports (MacCosham et al., 2015). The current study echoes this point and clearly reveals instances of athletes being overwhelmed by their demands and struggling to maintain performance where adjustments to the load of their other life avenues were unattainable. Despite the position of athlete being considered as the dominant role, the premise of the necessity for an exclusive athletic identity for performance was not upheld in the current athletes' stories. Instead, athletes recognised that the context of balance was flexible and fluctuated accordingly with their priority of the training or competitive period at particular times (Amirault & Orlick, 1999; Douglas & Carless, 2006). Advancing knowledge, the findings of the current study indicate that athletes perceive the well-being – performance relationship to be influenced by the logistical management of sport and life roles.

The current results also suggest that implications of demands on performance may be different dependent on the characteristics of the domain. For example, where athletes experienced a conflict in managing the demands of their employment, compared with academic study, with the demands of their sport, there was often negative performance consequences or



challenges either associated with fatigue from long working hours or cognitive distractions related to educational concerns such as deadlines or exams, respectively. These findings highlight that athletes may be confronted with circumstances that differ considerably in terms of managing the intensity and type of demand within their external domains, which may have resultant physical or psychological performance implications. This suggests that the approach of supportive services may be most beneficial in assisting athletes to manage their life balance when tailored to suit athletes' particular situation and resources. It may also be useful for athletes to strengthen their communication with their employers or points of contact within educational establishments with the backing of their sport, to build comfortable relationships based on transparency regarding expectations upon and from the athlete. As the athletes highlighted that their performances often benefitted from the reduction in the demands of these other areas, equipping them with the skills to pre-negotiate terms around their fluctuation in attendance and responsibilities may minimise the stress and discomfort that could occur. It is likely that employers and educational institutions may have different responses to these instances and whether these circumstances are looked upon favourably. To enable effective management of these commitments alongside sport, knowing they have approval from these external bodies may prevent them having to work long hours that are physically detrimental to their sport, or take important exams and meet deadlines at the same time as important sporting time periods, as these may be able to be rearranged. Being at ease with this situation may give athletes greater scope to realise both the personal and competitive benefits of their non-sport life domains, as not all high-level athletes have their sporting body to negotiate these situations.

Both the current *balance* narrative and the *performance* narrative proposed by Douglas and Carless (2006) have attempted to describe what leads to good performance in contrasting ways, which may have resulted from the generation of data within different social contexts. It is likely that the athletes in the current study have adopted their stance of *balance* as they were explicitly asked to consider well-being within their performance stories, hence their suggestion that performance is more likely when everything is in balance. Whereas other athletes may not have been asked about their performances in a way that considers well-being, which may explain why it has previously been common for athletes to present a single-minded approach is necessary to obtain best performances. Athletes' opportunity to partake in and ability to manage the demands of multiple life domains including sport is likely to influence their well-being and determine the extent that this then affects their performance.

Douglas and Carless (2006) reported relationships as an intermediary variable linking lifestyle factors to performance because of the support athletes received through their

connections with others. The current study findings maintain this idea and add additional insight by suggesting that the support network is considered an important regulator in the link between well-being and performance. Athletes have previously acknowledged having a supportive network as an essential component of balance (e.g. Amirault & Orlick, 1999). The present study agrees with this notion and extends knowledge by suggesting support from certain individuals has the potential to promote competitive success, because it can help athletes to maintain well-being through assisting in the simultaneous balance and management of their sport and life. The social support network increases resources for athletes to navigate or even thrive on the challenges associated with high level sport to maintain well-being thus allowing attention and focus to be prioritised towards performance (Dodge et al., 2012). The current study makes knowledge contributions as it is the first to suggest that particular members of athletes' support networks have particular roles in facilitating the relationship between well-being and sport performance: it contextualises previous theoretical work (Rees & Hardy, 2000). Parental technical support emerged as a notable role within the support network, which may not always be appropriate if originating from parents with no sporting knowledge or background, as the technical information provided may be incorrect. Even those parents with the expertise and personal experience in sport may not provide support that is congruent with the coach or their philosophy, which could be detrimental for athletes' performances. Where parents are able to offer technical knowledge to their athlete-children, caution of parental overinvolvement or pressure should be considered, as this has previously been shown to be deleterious to athlete development and performance (Wolfenden & Holt, 2005). When particular roles are fulfilled athletes may feel they are receiving adequate assistance in order to manage the interaction of their well-being with their performance. Conversely when athletes do not feel these different roles of support are being fulfilled, or they do not have access to particular roles within their support network, their performances may be below optimal as they may struggle to maintain balance which may affect their focus. The athletes placed importance on seeking support from knowledgeable sources and those they felt understood and could be empathetic about the things they were experiencing. The results suggest that assistance from members of social support networks is needed to manage the interaction of well-being and performance, and that educating the support providers about their roles within this relationship may be conducive to creating knowledgeable and compassionate supporters.

Similar to findings in previous studies (e.g. Poucher, 2017), funded athletes in the current study were deemed to be in superior positions for performance due to operating in environments with an abundance of tangible and informational support in the form of access

to sport specific support staff, resources and services. The multifaceted sources of support were considered to remove stresses associated with a number of domains to facilitate an environment where the sole and priority focus was the performance, which was assumed to be positive for well-being. Despite this point, it did not appear that funded athletes' issues were eradicated, as all of the athletes recalled some instances of low well-being experiences. Competing in sports where funding was available was perceived to have well-being benefits concerning support provision and options for advice and treatments that were likely unavailable to non-funded athletes (Douglas & Carless, 2006). Where these provisions may be assumed to be creating the best possible surroundings for athletes, the receipt of funding dependent on the sport and level of the athletes did not necessarily appear to evoke consistently superior well-being. This finding advances knowledge by demonstrating that even with all the support provisions, athletes are not exempt from unhappy days, can still experience low well-being and negative life events and poor performances. Perhaps funded athletes, often involved in more popular sports, and sometimes performing at a higher level may actually experience increased levels of pressure and expectation, which may be detrimental to well-being (Verkooijen et al., 2012). Because of their receipt of funding which is based on performance, it may be proposed that funded athletes have more to lose, thus poor performances are magnified. This finding suggests that regardless of the provisions of support received at an organisational level, all athletes may benefit from anticipating that knocks to their well-being are inevitable and to be prepared with how to manage these themselves in advance.

It is unsurprising to reveal this underlying story of *balance* when reflecting this relationship within elite athlete narratives, because of their exposure to a society that believes and promotes well-being. The recent drive within elite sport for supporting athletes to maintain a balanced life will likely have influenced athletes' interpretations. Anecdotally athletes operate in an environment based around the notion that well-being is considered to yield successful performance (as supported by the existence of holistic support staff). UK Sport, the government organisation which directs and funds the development of elite-level sport, and a body by which many of the athletes in this study are overseen by, makes reference to the mental health and well-being of athletes in the presentation of some of their missions among other readily available information (UK Sport and EIS enhance mental health support, 2018). Additionally, the English Institute of Sport (EIS), the provider of sport science and medical services to elite athletes, identifies the improvement of athlete health and well-being under their description of *what we do* on their website (EIS what we do, 2018). The EIS also delivers Performance Lifestyle support as a provision alongside performance to construct environments

that support the congruence of athletes' sport and non-sport lives for their benefit and care as individuals (Ashfield, Harrison & Giles, 2017). It is hardly unexpected that the fundamental story the athletes are telling bares similarities to a dominant narrative within the culture they are currently operating within. Especially when the essence of PL has been described in ways such as "providing support and education around finding and managing the optimal personal balance for conflicting demands to protect performance potential" (p. 205, Ashfield, Harrison & Giles, 2017).

Despite the support this study provides for the notion that a narrative of *balance* underpins the relationship between well-being and sport performance indicating it may therefore be useful for athletes to strive for fundamentally, the current work also highlights that life balance and well-being are not perceived as essential for, nor do they guarantee successful performance. This finding resonates with the suggestion that different athletes have perceived both balance and sacrifice of other domains as good for their sport career (Douglas & Carless, 2006). Where it was suggested that those athletes' perceptions varied in-line with their age and stage or experience in their career, the current study contributes a new insight and makes knowledge advancements by posing a second narrative, *optimal mind-set*, perceived as paramount to the regulation of the well-being and performance relationship. The emphasis upon the presence or absence of particular mental strategies that either evoked or prevented a psychological approach conducive for performance were central in athletes' stories where athletic performance and well-being were misaligned. This narrative appears comparable to the commonly constructed story of mental skills training (MST) within applied sport psychology practice and consultancy (e.g. Sheard & Golby, 2006; Thelwell & Greenlees, 2001; Vealey, 2007). This type of work presents one way in which we attempt to understand how athletes can manage performance and how relevant practitioners can work with them to assist them to perform. The current athletes rationalised situations of low well-being or compromised life balance alongside high performance levels in accordance with adjustment of their views about their current situation or utilising their surrounding circumstances to produce a favourable mental approach. Both of these scenarios required athletes to transform their negative emotions into feelings that manifested as motivation for the performance. The finding shares parallels with the previously established *relational* narrative as the current athletes identified performing successfully because of a primary focus of showing gratification to and seeking pride from their deceased family member (Douglas & Carless, 2006). The current findings make knowledge advancements by demonstrating athletes believe they may be able to perform regardless of experiencing low well-being if they can engender an emotional response that

enables utilisation of their sup-optimal state to their advantage. This point illustrates the potential power that significant events may have upon athletes' performances. It may be suggested that should negative life events like this occur to athletes alongside key career moments, if emotions related to these events are controlled, filtered and expressed positively into the athletes' readiness to perform, they may be influential in allowing athletes to still be successful and create positive outcomes for themselves.

To have such optimistic reactions when facing negative personal life events, circumstances or stressors, may be characteristic of resilient individuals (Sarkar & Fletcher, 2014). Individual differences in psychological resilience has previously been shown to predict the ability to find positive meaning in negative circumstances (Tugade & Fredrickson, 2004). This suggests that where athletes are conscious of the fact that negative emotional experiences will affect them, but that they can control their reaction to these events via positive reappraisal, they have potential to generate more successful outcomes. In the current instance, athletes may have produced good results alongside bereavement as they may have perceived a sense of interdependence and additional accountability to try harder for those watching over them. To have performance to focus on at times of distress may help athletes to regain a sense of positive self-worth and create a psychological lift important to well-being but beneficial for successful performance outcomes.

The current findings understood in context with the concept of an MST narrative suggest that athletes believe they have a somewhat active influence over the relationship between well-being and performance. Considering the narratives presented, athletes appeared to be adopting a somewhat internal locus of control in their stories (Rotter, 2011). Athletes seemed to suggest some responsibility for shaping whether well-being had influenced performance, and that the power they held had regulated the interaction through their application of different behaviours. The current elite athletes seemed to make sense of the well-being – sport-performance relationship according to actions they either did, or did not, undertake themselves, accepting some accountability for their own performances. These results advance knowledge about the relationship between well-being and sport performance by highlighting that athletes perceive to have some control over the interaction, should they adopt and develop suitable strategies to stimulate a mental approach conducive for successful performance, irrespective of their well-being state. Such views may be the result of a combination of the individualistic society of the present day and the general culture within high level sport, where there is a basic assumption of if you want something, you've got to make it happen for yourself and that everyone is capable of achieving something if they really want to.

It is likely that the athletes placed themselves as a protagonist within their stories because this is the idea they are exposed to when they embark upon the pursuit of elite success. The notion of going out and getting what you want is also reinforced through motivational quotes, advertisements, and branding that is rife within the readily accessible world of social media. For example, quotes such as: *'success doesn't just come and find you, you have to go out and get it'*; *'stop waiting for things to happen, go out and make them happen'*; and *'good things come to those who wait, but better things come to those who work for it'* (Brian Tracy) are common in mainstream media. This accountability for shaping the interaction, to some extent, between well-being and performance may also reflect the fact that the majority of the selected sample were athletes from individual sports. Success for such athletes can only arise from the individual themselves, without the reliance on, or input from, other athletes' performances that may occur in team sports, or the shared pressures across teammates. This is a common script evidenced in previous research highlighting internal attributional styles as more common in individual sports than in team sports, which have accounted for vulnerability to higher levels of depressive symptoms (Hanrahan & Cerin, 2009; Nixdorf, Frank & Beckmann, 2016). Elite athletes will recognise that their high-level performances are required and expected on any given day and as the current study indicates, at times these performances are necessary under difficult personal circumstances. It is possible that athletes adopt these types of stories because they are aware that certain aspects that contribute to their well-being in either positive or negative ways cannot always be controlled. If athletes can perceive some degree of control for the interaction of well-being and performance, this may give athletes confidence and belief that they have the ability to affect change within their performances. This study suggests that athletes recognise that even when facing challenging times, to succeed and to be the best they figured out ways to apply themselves mentally so that performances could still happen. It may be useful for practitioners to promote the development of strategies that employ these controllable behaviours as there is a chance these competencies could nurture a sense of control for athletes that is comfortably sustainable to foster performance ready states under different well-being circumstances.

Additionally, MacCosham et al. (2015) and Douglas and Carless (2006) have highlighted how athletes used other non-sporting pursuits in their lives as an escape from their sport, which was also found to contribute to the *balance* narrative and maintain well-being in the current study. Advancing on this point, the present research is among the first to suggest athletes can perform with low well-being if they can adopt a perspective which sees sport as an escape mechanism from the issues presenting within their low well-being. This finding

suggests that by using sport and sport performances as a means of relief from the demands of their negative life situations, and a method of generating a short-term well-being for the period of the competitive event, athletes may be able to perform regardless of the difficulties they are facing in their outside life because sport may be seen as their well-being. Central to this proposed idea is that the athlete would need to possess the maturity to be able to take this perspective, as it can require considerable control of emotions. Athletes could work to develop their self-awareness and knowledge of how they feel sufficiently to see that performance opportunities are still available regardless of the presence of well-being issues. If athletes can adopt the view that their sport performance may be able to make temporary improvements to their current well-being, they may still be able to perform. If good performances then do occur, general well-being may actually be enhanced to some degree (Costa, 2017). This strategy may not be as suitable if the athlete's well-being is low because of factors related to sport, such as periods of performance dips or strained within-sport relationships, as the athlete will be operating in closer proximity to these issues. Athletes appeared to be reframing themselves and their thoughts and feelings and adapting to their low well-being state in an attempt to regain control of their sport environment to some extent despite having other chaotic events or life dimensions. If athletes can be supported to develop skills and their ability to adopt these perspectives, they are suggesting that performances could still happen. Athletes may also feel a sense of empowerment in consciously applying behaviours to use the domain they excel in to create a change from their current state to their desired state.

Comparable to previously employed avoidance coping strategies (e.g. Kowalski & Crocker, 2001; Nicholls & Polman, 2007), athletes in the current study explained that their ability to perform alongside instances of low well-being were also perceived to be as a result of blocking out their personal life problems to eliminate or minimise the transfer of distractions from issues within their well-being. Athletes reflected on how cognitively obstructing their problems from their thoughts allowed them to disengage from their well-being related stressors, similar to psychological avoidance coping methods such as cognitive distancing (Anshel, 2001; Krohne, 1993). This again demonstrates how the athletes perceived the use of methods to attain an appropriate *mind-set* to perform. The extent to whether this disengagement from well-being was achievable, appeared dependent on the severity of the factors contributing, as the athletes suggested they may not be capable of managing the cognitive avoidance of something severe or extreme whilst maintaining focus for performance. However, athletes within this study did in fact mention the application of this technique in line with a bereavement, an event that would be expected to be considerably detrimental to a person's

well-being. This finding suggests that avoidance based coping strategies may be a practical, short term way for athletes to compartmentalise their life areas in an attempt to prevent negative transference from personal domains into performance. To maintain this for long periods may be damaging to mental health, well-being and performance. Athletes' may feel a sense of power, and their performances may benefit from, the development of the ability to *take a rain check* on their well-being issues, whilst acknowledging their importance and recognising that they will be dealt with at the earliest opportunity. Confronting emotions associated with negative circumstances may be appropriate and considered healthy and necessary to prevent or minimise the chances of longer-term consequences for both well-being and performance.

Examples where well-being was high, but performance was poor resembled aspects of the *discovery narrative* evident in Douglas and Carless' (2006) work. The current athletes had other things in their lives irrespective of sport results to define their self-worth, and sport success was not always necessary to feel good. Other athletes have similarly recognised the value and meaning established through non-sport pursuits (Price et al., 2010). The current findings contribute to knowledge by suggesting that where athletes achieve a sense of self-satisfaction from other areas of their lives, this contentment can diminish the value and need for sporting success. Athletes recounted instances where this contented state made them feel relaxed, which was not necessarily productive and may have been responsible for a lack of performance. Previous research has similarly shown pleasant or positive dispositions to be unhelpful for performance and evoke some poorer performance outcomes (Lane, 2007; Samelko & Guskowska, 2016). These positive states may not always promote performance should the particular sport require, for example, explosive, aggressive or dynamic movements. Other research demonstrates performance advantages aligned with negative or unpleasant dispositions (Samelko & Guskowska, 2016; Woodman et al., 2009). Athletes may find value in striving towards and maintaining good well-being and happiness for the more obvious mental health implications, and as this has also shown to be useful in many performance instances as discussed in the earlier *balance* narrative. However, good well-being alone sometimes appears not to be enough to generate successful performances as it can engender apathetic psychological responses. Where this is detrimental to the performance mind-set, the key may be in the application of psychological strategies to create an inner state appropriate to the sport and performance environment that the pressure and urgency for results might otherwise provide. This finding suggests that there is potential for high well-being to be a distraction for performance and that mind-set may be just as important to prime for performance when happy and feeling good as well as when feeling low. The application of



strategies and skills to promote performances under higher well-being conditions are likely to differ from those needed under lower well-being conditions but it might be useful to support athletes to foster both types so they can be prepared for each.

It is also not unexpected for elite athletes to present a narrative surrounding an *optimal mind-set* within their experiences of well-being and sport performance, because of the likelihood of their exposure to such ideas. Elite athletes are likely provided with sport psychology support or workshops, or at least have knowledge that this field exists. Athletes at the top level may also attempt to self-teach aspects within this discipline, as they are often interested and motivated to do anything that will give them an advantage over their opponent in pursuit of the marginal gains (Hall, James & Marsden, 2012; Slater, 2012; Woodward, 2004). An athlete in the current study discussed how he would read up on topics in sport psychology to develop himself in every way that he could to be better. A number of athletes within the current study were also university students, with some studying degrees in sport science or other related areas and may have completed modules based on sport psychology. Considering these points, it is reasonable to suggest that these athletes have probably been exposed to this idea of the necessity for achieving the right mind-set to perform through the aforementioned means and therefore these social influences have likely affected the construction of the stories they have presented when discussing the relationship. The essence of the athletes' stories presents a combination of both a holistic and balanced perspective with the consideration for overall well-being of the athlete as a person, and also a more short-term, quick fix approach of strategies to manage performance under whatever state well-being is in. The current study provides evidence to show that athletes perceive that both these types of approaches are useful, and each have a role in the well-being – performance relationship by either maintaining, restoring or coping with well-being for performance.

Advancing on previous athlete well-being definition literature the current study found that athletes also identified psychological health in addition to physical health, and that other physical factors, such as fitness and nutrition were evident in their conceptualisations, which were not mentioned by para-athletes in earlier work (MacDougall et al., 2016). Recognition was also given for material well-being (e.g. stability) and a balance of things in life, and the athletes identified the presence of positive features as well as the absence of negative states within their definition. Well-being definitions within the present study demonstrate many of the indicators regarding domains well-being has been conceptualised under, summarised by Brady and Grenville-Cleave (2017), and represent some broader ideas than those proposed by athletes in other studies (Lundqvist and Sandin, 2014; MacDougall et al., 2016). Findings

parallel the inconclusive characteristics of the general definitional well-being literature, as each athlete had personal insights regarding their own well-being and definition, and the amalgamation of their interpretations highlights the continually deliberated complexity and eclectic nature of the concept (Dodge et al., 2012; Lambert et al., 2015).

Commonly, earlier work to establish a well-being definition has involved academics adopting literature reviewing methods to assimilate a theoretical background with postulations regarding their own thought processes (Dodge et al., 2012). Athletes of a comparably high level to those within the current study have previously provided well-being definitions in line with the pre-established classifications of SWB and PWB (Lundqvist & Sandin, 2014). The current work extends existing knowledge by presenting British elite athlete's own suggestions about the characteristics of well-being through an empirical database, without constraining the emergent data to a particular framework. Irrespective of the application of a framework in the pursuit of a definition, both cohorts of elite athletes presented considerably similar well-being dimensions. With respect to the parallels across both studies and the fact that athletes appear to be acknowledging many similar aspects to the key literature within their real-world experiences of the construct of well-being, this suggests the theorists may be offering conceptualisations that are reflecting the concept authentically. In light of these similarities, we have potentially advanced insights into this concept according to elite athletes and can have increased confidence in the robustness of the definitions proposed in the literature, which can give reassurance when applying these within future athletic research.

#### **4.4.1 Strengths, Limitations, and Future Research**

The present study has several limitations. Researching high level athletes engenders some natural restrictions. Studying the cohort of elite athletes presents issues with regard to accessing large samples due to time-constraints associated with their training hours, competition preparation, and other personal obligations, or simply not being permitted to take part (by their clubs, coaches, associations or governing bodies) due to the timing within competitive cycles or seasons. Data collection occurred during an Olympic year, which made participation difficult for some participants who were trialing and also made recruitment of additional participants challenging as some NGB's were restrictive with their access due to the timing within the Olympic cycle. This study investigated 10 athletes from a range of predominantly individual sports and different clubs, which could be argued is a limited sample size that may not be generalisable to athletes in other sports or larger populations. However, the aim of the present study was not specifically to obtain generalisable findings, rather it was to examine athletes' narratives regarding their perceptions and experiences of the relationship

between well-being and sport performance, and key intermediary factors within this interaction, in-depth (Smith & McGannon, 2017). The relatively small sample size may actually be considered a strength, as the study was able to reach a level of understanding that would have otherwise been impractical with a larger number of participants. It is acknowledged that the findings advance understanding by presenting two key narrative types that characterise the group of 10 athletes interviewed, which is likely more representative of individual sports. No claim is made to suggest that these are the only possible narratives elite athletes adopt as further alternative narratives may exist and should be explored. Future research could interview other groups of athletes in different social contexts, such as team sport athletes, to uncover whether other narratives exist and what these may be. In addition, studying athletes from a single country of a certain standard means results from this study may not generalise to other groups of athletes not at the elite level. However, it is plausible to suggest these findings may be applicable to athletes that compete at similar levels in different countries with comparable developmental programmes, structures and systems in place.

The potential for and likelihood that athletes' stories have been coloured by their ability to remember and recall past events may also be considered as a limitation. As participants were asked to recollect events from across their sporting career their answers may have been limited by their ability to remember their thoughts and feelings regarding past experiences. The time for mental processing and personal reflection on previous events may have also led to different interpretations and responses to their judgements at the time. It is however important to note that the current study was interested in focusing on how athletes storied their experiences now, how they presented themselves, and how they currently made sense of what has happened. Emphasis was not about the historical accuracy of particular details or events, nor was it about attempting to prove that the stories were correct. Longitudinal examination of the experiences of the interaction of well-being with sport performance could go some way to addressing the possibility that athletes' stories are likely influenced by their capacity to reminisce, by providing an understanding of this relationship as it occurs. Longitudinal research may also provide the means to examine how athletes' narratives change over time, as it must not be assumed that athletes have only one story to tell. This type of research could also highlight particular times or stages within athletes' yearly cycles that may present more challenging interactions of these constructs and provide additional insight regarding these associations. Such factors may be neglected in light of the retrospective nature of the current study. Researchers may face difficulties in gaining ethical and participant consent for such research with athletes whose sport careers are still ongoing. Perhaps this is something that could be

captured by those working in practice, suggesting implications for lifestyle support roles in the longer-term observation of this interaction of well-being and performance. Study four of the current thesis will attempt to provide narratives of athletes' experiences collected longitudinally to see if there are any changes over time or in line with particular events or challenging phases.

Another limitation of the current study may relate to the semi-structured interview method adopted for a study that applied a narrative analysis to understand athletes' stories about the well-being – performance relationship. This interview method may have restricted some of the detail and direction of athletes' responses and confined their stories somewhat to the semi-structured questions therefore only gleaned 'mini' versions of events. The researcher was responsive in adapting from the originally proposed analysis methods of this data set as they were not suitable to represent athletes' experiences, which is why the data collection methods could have been better suited if the research were to be replicated. Narrative, or more open-ended story telling data collection methods may offer a way to obtain more depth for future research of this nature. In the current study the researcher returned to the participants to seek their responses to the proposed narratives, which provided opportunity for further data collection.

Future research exploring the narratives regarding perceptions of the well-being – performance relationship from other perspectives may assist in advancing knowledge in this area. As discussed, athletes believed the support network played an important part within the balance narrative and in supporting athletes to maintain and manage aspects contributing to well-being for performance. Athletes also believed a central regulator within the relationship concerned the mind-set and mental approach to performance regardless of well-being state. There is a lack of research, however, exploring the narratives regarding the relationship from members of the support network who have key roles in overseeing athletes' well-being and coping with the psychological demands of performance, such as Sport Psychologists and Performance Lifestyle Advisors. These professionals may not have perceptions equivalent to athletes and may have additional insights that have not been identified by athletes. By gaining professionals' understanding of the relationship between well-being and sport performance, an appreciation of the interaction from other people who have experienced it secondarily through their athlete clients and potentially had some influence upon it can be gathered. Professionals' perceptions of the relationship are explored in more detail within the next study. Further applied implications for this study will be discussed at the end of the thesis to avoid repetition as it likely that each study will highlight some similar considerations.

#### 4.5 Conclusion

In conclusion, as highlighted in the current study, athletes' stories reflected two key narrative types present within their experiences of the relationship between well-being and sport performance: *balance* and *optimal mind-set*. Awareness that this relationship appears to be experienced in-line with two dominant narratives offers some evidence as to why it has been inconclusively explained anecdotally and in simplistic quantitative research. These narratives together illustrated the complexity of the interaction, underlining that the relationship is considered indirect with only increased chances of performance and no distinctly concrete promises. The current study adds knowledge by providing some context to this already recognised intricate relationship, as the two narratives were suggested as key features in the mediation between an athlete's well-being and their performance. Athletes' experiences were fundamentally characterised by the perception that being in *balance* was positive for them and was an underlying theme that they appeared to strive for because of the benefits to well-being and the assumed performance advantages when it was present, and performance failures when it was absent. If athletes are cognisant that at times the relationship can exist simply, they may be encouraged to pursue and continually work on their well-being as a facilitator for positive athletic outcomes, which may also indirectly ensue a strong baseline for their health and mental health. The notion of the *optimal mind-set* narrative emphasised how athletes' well-being state did not necessarily predetermine performance in sport, and that balance was not always needed to perform well if appropriate psychological approach strategies were developed and adopted. Essentially, if the mind-set was right, regardless of the state of well-being, good performances could happen. Awareness of the nature of the intricacies within the relationship will hopefully highlight to athletes that (1) they should not rely on well-being to give them athletic success, and (2) well-being state does not predict performance state. Rather they have the opportunity to regulate their outcomes through development, practice and implementation of psychological strategies targeted at achieving appropriate mental states for high level performances. The current study adds further knowledge by suggesting athletes may be able to gain control of this relationship should they take responsibility for actions they could engage in, such as the strategies to create a facilitative mind-set. These coping mechanisms appeared key in making the difference to performance irrespective of well-being. Although multiple routes were presented to navigate from well-being to performance, and athletes perceived that there were various possible ways to create good performances, having underlying high well-being may be most likely to provide the best outcomes. As the athletes considered both a balanced life and mind-set conducive for performance to be essential components regulating the interaction

between well-being and sport performance, it was deemed appropriate to consider the views of people who assist athletes with these areas, regarding what they perceive is going on and is important within this relationship. In the following chapter, practitioners' perceptions of the relationship between well-being and sport performance will be explored.

#### 4.6 Thesis Study Map: Study Two

Study	Objectives & Key Findings
Study One: A systematic review of the relationship between well-being and sport performance in competitive athletes	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Systematically analyse the previously conducted quantitative research regarding the relationship between well-being and sport performance to reveal the current state of the literature in this area</li> <li>• To obtain a quantifiable indication of the relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Overall dearth of quantitative studies, limited to only 7 (of moderate quality) matching inclusion criteria</li> <li>• Mixed support for a relationship with inconclusive and varied evidence</li> <li>• Range of correlations reported: significant/non- significant, weak/moderate/strong, positive/negative, no correlation, making a consensus statement regarding the relationship between well-being and sport performance difficult</li> </ul>
<b>Study Two: Elite athletes' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</b>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• <b>Examine elite athletes' narratives and stories of the relationship between well-being and sport performance constructed through their perceptions and personal experiences.</b></li> <li>• <b>Identify key factors considered to have a contributing role within the well-being – performance relationship</b></li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• <b>Athletes perceive the well-being and sport performance relationship is complex illustrated by the emergence of multiple different types of interactions</b></li> <li>• <b>Life balance and the management of demands within life domains play key roles in the relationship because they are considered fundamental for well-being</b></li> <li>• <b>Personal roles acted as resources to sustain and restore balance and well-being, which indirectly provided athletic benefits</b></li> <li>• <b>Support network plays key role in the facilitation of balance and particular members have particular roles in facilitating the relationship</b></li> <li>• <b>Coping strategies to create an appropriate mind-set appeared more important for performance than actual well-being state</b></li> <li>• <b>Individuality accounted for personal differences and was significant within relationship</b></li> </ul>
Study Three: Practitioners' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis	<p>Objectives:</p> <ul style="list-style-type: none"> <li>•</li> </ul>

Study Four: Longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance: a mixed methods investigation	Objectives: <ul style="list-style-type: none"><li>•</li></ul>
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## **Chapter Five**

Study 3: Practitioners' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis

### 5.1 Introduction to Study Three

Study two of the current thesis revealed that the elite athlete participants perceived the relationship between well-being and sport performance to be both complex and multifaceted. The well-being state was considered to influence the chances of performance in accordance with certain factors. The athletes' experiences of this relationship were interpreted primarily within a narrative of *balance*: if their life domains were manageable and their well-being was high, their performances were good, and vice versa. The notion of a positive relationship, however, was unable to be universally applied to the participant athletes' experiences, as life balance and well-being were not always perceived as essential for, nor did they predetermine or guarantee performance success. Athletes also drew upon alternative explanations for instances where their performances did not coincide with their level of well-being in a positive manner. Activating or achieving an *optimal mind-set* was seen as key to rationalising these occasions, through the use of a number of self-directed coping strategies to achieve this mental state. Within the narratives, athletes appeared to be accepting some level of control over the relationship through their active application of psychological strategies to generate a mental approach able to manage or cope with their well-being alongside performance.

Athletes may discuss their performance fluctuations and aspects related to the dynamics of their personal lives with other people, meaning these individuals athletes confide in could be significant sources of information with regards the well-being and sport performance relationship. Athletes in study two highlighted having people to talk to who were knowledgeable, and who empathetically understood their situation and what they were going through, as important when seeking or engaging with support within the *balance* narrative. Support staff, such as sport psychologists (SPs) and performance lifestyle advisors (PLs), were identified as members within many of the athletes' networks. These individuals' roles typically involve (1) responsibility for assisting with athletes' well-being, (2) helping athletes to manage the demands of their lives, or (3) developing athletes' psychological awareness and readiness to perform. Indeed, they may be central providers of information regarding the well-being - performance relationship of athletes because by virtue of their role they generally provide a range of emotional, tangible and practical support for athletes.

Research is yet to examine practitioners' perceptions of the relationship between well-being and sport performance. It may be valuable to understand practitioners' views on this interaction, as they are likely to differ in some way to the athletes and may offer perspectives that are alternative to those who are immersed in the experience, such as the athletes themselves. Other previous research has interviewed sport psychologists as a method of

gaining extended insight into their thoughts on other sport psychology topics (e.g. mental toughness) due to the potential for them to be able to offer suggestions derived as a result of their experience in the sporting environment in a context that differs to that of the athlete (Weinberg, Freysinger & Mellano, 2018). Practitioners may be able to offer unique judgements about the sporting world, and further insight into the lives of the elite athletes they work with, as they may observe and identify particular aspects that athletes may be unaware of as a result of their first-hand involvement in the phenomenon. Sport Psychologists' and Performance Lifestyle Consultants' perspectives may contribute to this area of work and be advantageous to inform intervention design because of their discussions with a variety of athletes, perhaps over time. Their exposure may offer a perspective informed by an amalgamation of various experiences, as opposed to the single, personal experience of the athlete themselves.

Practitioners' educational background and experience surrounding their interaction with athletes at different times and stages of their sports careers will likely contribute to their ability to identify key factors mediating the well-being – performance relationship. It is probable that these professionals will be able to draw upon their knowledge about successful or unsuccessful examples of strategies implemented with athletes experiencing well-being fluctuations, due to their developed awareness of recognition of these incidences. By offering their opinions based on their exposure to the intricacies of this relationship, they may inform and share practical ideas relating to enhancing performance gains or increasing potential for athletes' best performances. This knowledge could be used to help and inform coaches, athletes, sport scientists, and sport organisations to maximise the design and culture of their programmes to support athletes to maintain high level performance regardless of well-being fluctuations.

Building from the findings of study two, knowledge of the relationship between well-being and sport performance from the perspective of those providing support and assistance to athletes will advance the understanding of the relationship to some degree, through examination of the narratives they present. These individuals, together with the athletes' viewpoints, will broaden the sample of perspectives and experiences examined, to develop richness of existing awareness on this topic, which may inform future intervention with athletes when navigating this interaction. Narratives have previously been used in similar ways to illustrate other issues of interest within sport, as they lend themselves to understanding experiences, relationships and interventions (Smith & Sparkes, 2009b; Smith, 2013).

The aim of study three was to advance knowledge by qualitatively examining sports practitioners (sport psychologists, performance lifestyle advisors and personal development

and welfare officers) narratives of their perceptions of their client athletes' experiences of the interaction between, and influence of, well-being on sport performance. This study progresses from study two as it intends to offer narratives about the relationship that are constructed from alternative sources. This study will address the objectives (c) and (e) of the thesis.

## 5.2 Method

### 5.2.1 Participants

Participants ( $n = 14$ : 7 males/7 females), aged between 27 and 48 years ( $M = 36.8$  years) were recruited to take part in the study from across the United Kingdom initially via a purposeful sampling method (outlined in chapter four). Following this, snowball sampling techniques were then introduced in an attempt to extend the sample of rich informants on the selected research area. Snowball sampling refers to participants, upon the researcher's request, suggesting other people they know (for example colleagues, friends, family members) and asking these individuals to participate as well (Tracy, 2013). For example, practitioners were recruited for the current study via existing contacts of myself and the supervisors. Following this, these identified respondents were then asked if they were aware of other practitioners within their social networks, who adhered to the criteria of the target population, who they thought would agree to participate. Once identified, these potential participants were referred on to initiate contact with myself. One limitation of snowball samples is that they have the potential to skew the demographic towards recruitment of a group of similar participants (Tracy, 2013). Despite this limitation, the current study required a sample of people within only two different types of job roles. Respondents were experts in the fields of Sport Psychology ( $n = 7$ ), or roles based on lifestyle and welfare of athletes including Performance Lifestyle (PL;  $n = 3$ ) and Personal Development and Welfare (PDW;  $n = 4$ ). Descriptions of details regarding the nature of these different roles can be found in table 5.1. To be eligible for inclusion in the study, professionals had to have a minimum of 12 months experience in their current role or a previous relevant role (e.g. within a different sport), and knowledge, understanding, and personal experience of developing and supporting the well-being of elite athletes. This criterion ensured practitioners were able to draw upon their own personal practice with athletes. The practitioners had a wide range of experience in their field (2-23 years) working across a large number of different Olympic and professional sports. Six Sport Psychologists were HCPC registered practitioners, with the other holding BASES accreditation. The PLs and PDWs had a diverse background of qualifications varying from postgraduate degrees to other professional qualifications (for example, certificates in counselling skills/coaching and mentoring, NLP -

Neuro Linguistic Programming, mental health first aid, Performance Lifestyle Accreditation through the English Institute of Sport: EIS).

Table 5.1 *Outline of practitioner roles*

<b>Practitioner Role</b>	<b>Role Description</b>
<b>Sport Psychologist</b>	To support athletes to prepare psychologically for the mental challenges and demands of competition and training through the development of skills and capabilities to deal with a range of situations and pressures (English Institute of Sport, EIS).
<b>Performance Lifestyle Advisor</b>	To facilitate a personalised support service designed to enable an athlete's sporting and non-sporting lives to work together and complement each other, for the benefit of the individual and their sporting performance. To assist athletes to develop the necessary skills needed to cope with the unique demands of being an elite performer. To assist athletes with managing transitions, career development and planning, personal and professional development, finance support, and well-being (EIS).
<b>Personal Development and Welfare</b>	To support athletes in minimising potential distractions during their sport and performance and to better prepare them for life after sport. To provide guidance to athletes on a variety of issues such as education, career and family whilst keeping sport focus. To provide support for dual career aspirations, elite player and environment preparation, interpersonal skill development, experiential learning, self-awareness and management, personal welfare and well-being, and transitions (Professional Cricketers' Association, PCA). To develop resilience and personal and professional skills needed to consistently excel and perform in and out of sport. A personalised service centred around the three areas of well-being, lifestyle and personal development (English Cricket Board, ECB).

### 5.2.2 Procedures

Following ethical approval from the Research Ethics Committee at Liverpool John Moores University, contact was made with potential participants via email distribution of a

recruitment letter and information sheet outlining the title, purpose, eligibility criteria, procedures, risks and benefits of the study (see appendix D). The researcher and supervisory team utilised their personal connections to make contact with 33 practitioners. All practitioners contacted were asked to refer on any colleagues they believed would fit the criteria of the study to expand the network of the sample. A total of 14 professionals expressed willingness to participate. The remaining 19 contacted, either did not respond ( $n=10$ ), were unresponsive following initial contact ( $n=3$ ), did not fit elements of the study criteria ( $n=5$ ), or could not commit to the demands of the study ( $n=1$ ). Upon confirmation of participation, respondents completed an informed consent form (see appendix D). Participants also provided demographic data such as age, gender, current and previous job roles, length of time in current role, contact time per week, years of experience in relevant roles, sports worked with, relevant education, and training history, to help describe the sample (see appendix D). Following completion of these forms, data collection began. After 14 interviews had taken place theoretical saturation appeared to have been achieved, as the most recent information from the latter interviews did not appear to add anything particularly new or make changes to the emergent themes (Guest et al., 2006).

### **5.2.3 Interviews**

Interviews were completed in the same manner as study two. Face-to-face interviews were conducted with two participants on the university premises, in rooms where conversation could be overseen from a distance but not overheard. The remaining 12 interviews occurred via telephone, as this was considered by the respondents as the best approach to enable data collection conveniently within their busy daily schedules. The interviews with the professionals lasted between 38 - 80 minutes ( $M = 60$  minutes) depending on how detailed participants' responses were. With permission of the respondents, all interviews were audio recorded using a Dictaphone (OLYMPUS, WS-321 M, China). Only one interview was conducted with each practitioner.

### **5.2.4 Interview Guide**

The interview followed a semi-structured schedule similar, both thematically and dynamically, to the format of the interview guide in study two, with pre-determined questions. Content of the interview guide was again based on theoretical underpinning following a review of relevant extant literature on well-being and sport (Patton, 2002). Content was comparable to that explored within the study of elite athletes with some questions re-framed or worded to suit interviews with practitioners. The interview was split into phases that paralleled those implemented in study two. Both the introductory and opening phases replicated that of study

two, however questions regarding current roles and sporting background were asked to ease participants into the interview and build rapport. The central core of the interview guide explored the same three major topics as study two: (a) perceptions of well-being as a concept, (b) perceptions of performance as a concept, and (c) perceptions of the relationship between well-being and performance, via similar themes. Additional or alternative questions that were specific to professional roles, such as how the concept of well-being informs and influences their practice with athletes, were also asked. The closure phase was also similar to that in study two. See appendix E for full interview schedule.

### **5.2.5 Data Analysis and Research Credibility**

The procedures used for data collection, analysis (e.g. transcription, coding of data, thematic analysis, thematic narrative analysis), research credibility, and reporting were detailed in chapter four. Transcripts resulted in 137 pages of text, size 12 text, with line spacing 1.0. Feedback was sought for participants' verification, corrections, additional thoughts or adjustments upon content of transcripts. There were no indications of disagreement from participants. No participants requested any content to be removed or amended.

To establish qualitative methodological rigor within the current research specific processes aligned with those in study two were followed in line with criteria discussed by Smith and Sparkes (2014). The current research aimed to: (a) ensure understanding of practitioners' perceptions and experiences, (b) provide stories or narratives that advanced current knowledge, (c) provide information useful to athletes and support personnel (d) provide useful information for support staff and sport practitioners, (e) increase the level of awareness of research participants regarding this topic, and (f) discover valuable and interesting material that readers would appreciate and deem relevant. With regard to these guiding principles and aims, methods were carefully chosen and applied, and certain criteria selected to address them including: *worthiness of the topic*, *rich rigor*, *credibility*, *significant contribution*, and *transparency* (Sparkes & Smith, 2014). To ensure these criteria were met processes akin to those in chapter four were followed, but with reference to practitioners as opposed to athletes where appropriate. For example, one action to achieve the quality criteria of rich rigor was to determine specific inclusion criteria to identify practitioners, rather than elite athletes, with the knowledge to inform the research question. Member reflection processes were not formally completed within this study as a result of the demanding schedules and constraints associated with the inclusion of practitioners involved in some of the highest levels of elite sport. However, participants were encouraged to provide additional thought upon reviewing their transcript for accuracy.

### 5.3 Results

The first part of the results section presents the practitioners' definition and understanding of the concepts of well-being and performance via pen profiles. Themes highlighted in bold represent the higher frequency numbers and therefore more consensus within the identification of that particular factor. The second part of the results section displays practitioner's narratives representative of their interpretations of the relationship between well-being and sport performance, and their perspectives about what is important and contributes to the interaction.

#### 5.3.1 Well-being definition

Practitioners had a multifaceted definition of well-being containing a multitude of dimensions and factors considered to contribute to the concept (Figure 5.1). The majority of professionals included *support* ( $N=11$ ) and *happiness* ( $N=10$ ) within their well-being definers. In addition, many of the practitioners highlighted another social factor such as *good relationships* ( $N=9$ ), as well as the psychological factor of *psychological health* ( $N=9$ ) and also *stability and security* ( $N=8$ ) in their definitions. Half of the professionals identified *physical health* ( $N=7$ ) as a contributor to well-being. Some professionals mentioned the *influence of environment and culture* ( $N=6$ ). *Subjective perceptions about own life conditions* ( $N=5$ ) was recognised by less than half of the practitioners, as well as a number of other psychological dimensions (*coping*  $N=5$ , *managing distractions*  $N=5$ , *resilience*  $N=5$ , *multidimensional identity*  $N=5$ , *functioning*  $N=5$ ).

#### 5.3.2 Performance definition

Figure 5.2 highlights the highest frequency themes emergent in practitioners' definitions of performance. More than half of the professionals defined performance as the *execution of skills/tasks* ( $N=8$ ). Half of the practitioners ( $N=7$ ) referred to the *outcome of an event*, the *process*, and the *achievement of goals* in their performance definition. Some practitioners defined performance as *doing your best in your chosen area* ( $N=5$ ) or *delivering under pressure/in a competitive situation* ( $N=5$ ).



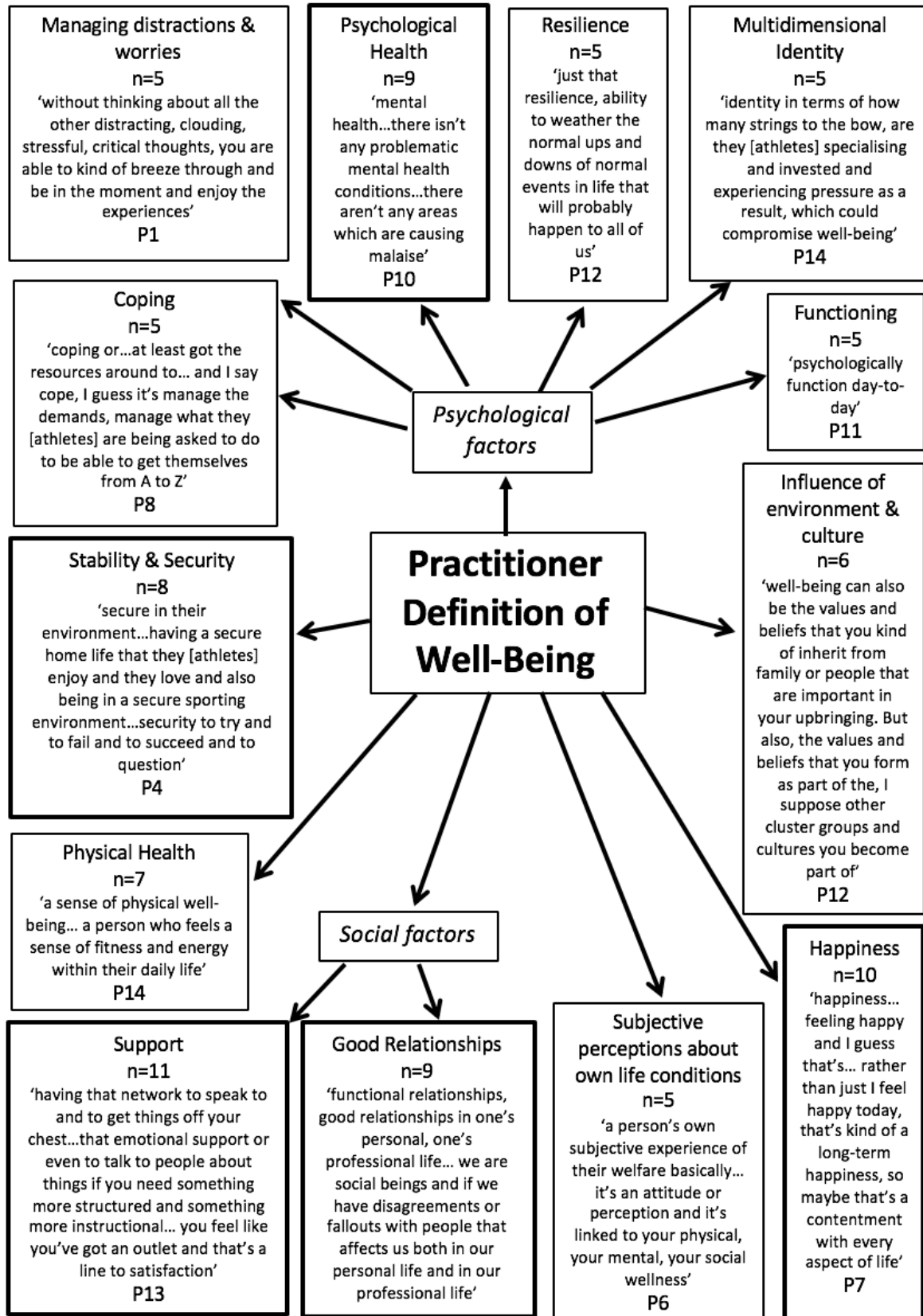


Figure 5.1 *Practitioner's definition of well-being and factors that contribute to well-being both generally and for athletes. P = Practitioner*

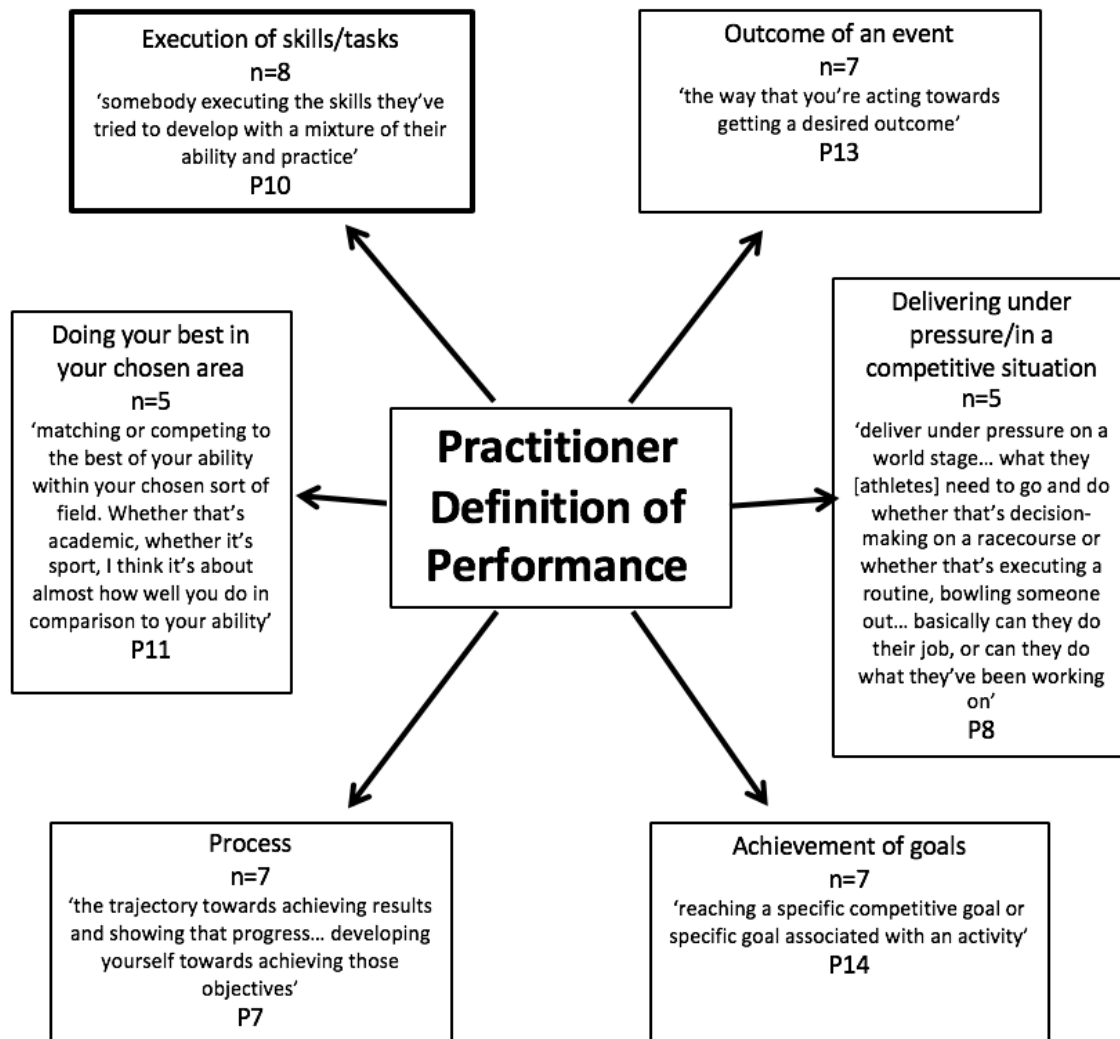


Figure 5.2 Practitioner's definition of performance. P = Practitioner

### 5.3.3 Narratives

To highlight the results and provide a greater understanding of the well-being and sport performance relationship, an outline of the stories told by practitioners who have observed and supported athletes through experiences where these two elements may have interacted is provided. Figure 5.3 presents a visual summary compiled by the author, of the emergent practitioners' narratives. The diagram is proposed on the basis of the author's thoughts and interpretations of how practitioners viewed the relationship, to visually and efficiently organise what was seen in the data. It is not to be interpreted as *the* fundamentally accurate or true model, but rather *a* model. This section will present practitioners' general assumptions, describe the various components of their stories, and consider additional factors perceived as influencing and contributing to the relationship between well-being and performance. Each aspect of the practitioners' narrative will now be discussed in turn and with depth.

#### 5.3.3.1 Well-being and sport performance relationship general interpretations.

The professionals expressed confidence in the existence of a relationship between well-being and performance but showed diversity in their explanations of its extent and complexity. While there was consensus regarding the presence of a relationship, professionals' perceptions varied. Views of "*a strong correlation between well-being and performance... they are inextricably linked*" (P1), and "*a very strong relationship*" (P11) demonstrated how some practitioners had little doubt that both constructs were connected. Other statements indicated slightly more cautious judgements, that there "*definitely is a relationship but it's really difficult to make a correlational relationship... you can make an association absolutely*" (P3), and "*not an exact one, but yeah definitely a correlation... it's not always completely explicit I don't think there's a straight correlation*" (P4).

Some indication was given suggesting how the relationship may differ from person to person: "*some athletes they need to have good well-being in order to perform*" (P6) and "*how they [athletes] feel about themselves at any particular point is critical to their performance*" (P10). Whereas others "*manage to perform well with you know moderate levels of well-being*" (P14). Athletes' individualised responses according to practitioners emerged as a key indicator within the relationship, but this will be discussed in more depth later on in the results section.

The practitioner's perceptions were based on a substantial collection of anecdotal evidence for the existence of a relationship evident within their experiences with athletes. One practitioner mentioned how "*you can never really prove any particular social science easily in an applied situation*" but that "*anecdotally... people will report that, athletes report it, services report it, but we can't make that direct connection*" (P3). Regardless of how certain

practitioners were about the relationship, they typically emphasised that the extent of the relationship was both intricate and non-direct. Professionals acknowledged that well-being can affect and influence the probability of performance as “*you are more likely to get a better performance if your well-being side of it is functional*” (P6), and “*there is a strong argument for if you are in a better place and a happier place and a more relaxed place then you are more likely to be able to execute your skills better*” (P9). It was also stated that this was “*a reason enough for us to work on that*” (P6), demonstrating some foundation and justification for the services these practitioners provide. It was likely in the practitioners’ interest to draw on such justifications as much of their job role can depend upon and surround the notion of well-being. As such, their motivation for believing in these ideas may have been influenced by the social script surrounding their duties within their employment positions.

The general belief of the professionals was that “*you get the best out of people when they are feeling their best*” (P7). Despite this suggestion, the practitioners recognised that well-being does not dictate the performance outcome: “*just because everything is great in your life or you are well balanced... it’s not a one plus one equals two equation... performance is unpredictable*” (P6). One practitioner expressed how “*it’s hard to argue that it doesn’t play a part, you know that well-being affects performance... that it doesn’t influence it to some degree...but I don’t think it determines whether somebody will perform well or not*” (P9). The blend of rationalisations including the expression of belief in a strong correlational link, but also the difficulty in attributing a correlational relationship, reveal the challenge experienced by the professionals in determining *what goes on* within the well-being – performance relationship. The narrative that emerged shows how practitioners have attempted to make sense of this interaction and how their stories and experiences exemplify this multifaceted association.

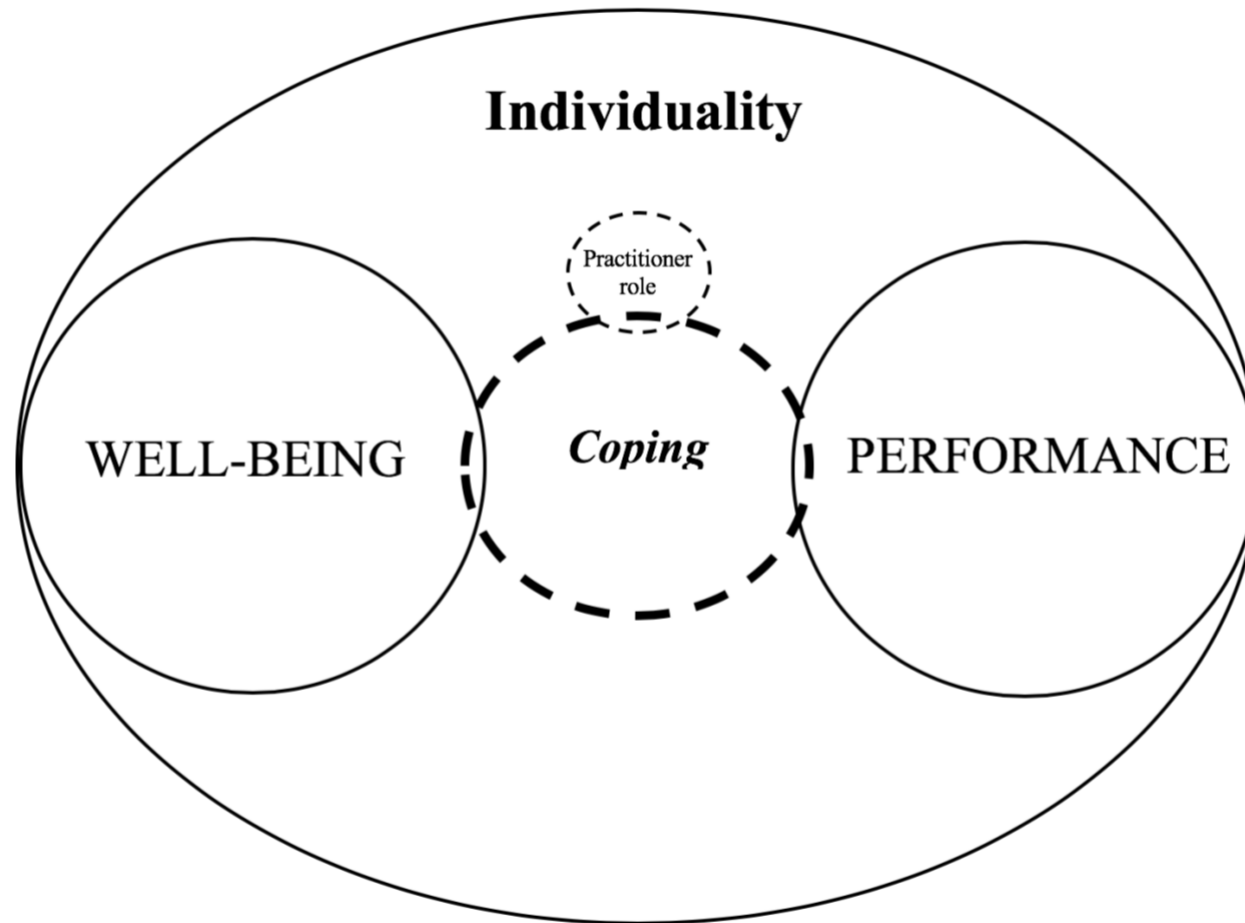


Figure 5.3 *Visual representation of the narratives practitioners perceived as contributing to the interaction between well-being and sport performance.*

**5.3.3.2 A Narrative of Coping.** The key focus of the practitioners' narratives was the notion of *coping*, see figure 5.3, which emerged as a mediator between well-being and performance. It was apparent within practitioners' accounts that they perceived that an athlete's capacity to cope with and manage the competing demands and challenges presenting within their personal situation appeared more relevant and critical to performance than their current state of well-being. Despite this view, the professionals indicated the value of having a sound baseline of well-being as being preferable for performance because "*the more someone has got a good sense of well-being, the more capacity they have to deal with stuff*" (P1). This could indicate a focus on well-being because it appears useful for performance, not necessarily expressing that well-being is good for the person and may represent a somewhat mechanical view of the athlete. This plot represented the suggestion that optimal well-being was not always necessary for an athlete to perform. Instead, it was their ability to cope and deal with their level of well-being that promoted or prevented the opportunity for better performances. This narrative of *coping* was maintained across a number of different interactions between levels of well-being and performance. Practitioners identified the contribution of different elements that either supported or hindered athletes' ability to cope and manage themselves and their well-being for performance, which will now be discussed.

**5.3.3.2.1 Coping: Transfer of distractions between 'person' and 'athlete'.** The main thread within the practitioner's coping narrative was the influence of the athletes' ability to manage themselves both as an *athlete* and as a *person* upon the relationship. One of the perceptions was that the performance of the *athlete* was influenced by the presence or absence of distractions transferring from the *person* and what was presenting within their well-being:

*"Essentially the athlete is a person and they've got a life that, okay their sport is a major part of it, but it is only a part of it. They've still got the things that go on and if you have an athlete who's got problems at home...and they split up with their wife or something, whatever it might be, of course it's going to impact on performance...There's just so many examples of where actually the off-the-field stuff has made an impact on the field."* (P11)

The professionals believed that their athletes performed at their best when they had "*a minimum amount of distractions*" (P6) transferring across from their outside lives. There was recognition that ultimately the preferable action would be to "*take away as many distractions as you can from the athletes*" (P6) in the hope of gaining performance benefits:

*"Everything to do with the athlete. That would be about them not stressing about a technical issue because they have already dealt with that in training, it would be not stressing about financial issues because we've already done with that, it would be not stressing about relationship issues because there's not a relationship issue because*

*they've dealt with it themselves... everything off the field is taken care of so that these aren't the issues they are carrying around with them.*" (P1)

Whilst acknowledging that dealing with and resolving all possible issues with the potential to arise during performance was the ideal response, practitioners indicated that athletes often have things going on in their lives when performances are required, and that the importance at these times is to "*help them cope with the distractions... I don't always take away those distractions, I can't, it's not within my power*" (P6). It appeared that professionals considered the transfer of distractions between roles as inherent to the relationship, as they believed well-being and performance to be inseparable constructs:

*"I wouldn't kind of use a dichotomy like there's performance and there's well-being because a lot of the time I think you think of people as people, and in a conversation, you can be talking about performance and somebody's well-being in the same sentence because we're people, we're human beings and therefore people's well-being is sometimes linked to their performance and understandably so."* (P10)

Often when the practitioners referred to athletes performing poorly they were perceived as struggling to cope with their current situation and unhappy with their surrounding circumstances. Often in these instances, athletes were facing multiple personal challenges and had issues occurring somewhat in the background, which reportedly compromised their attention during performances. Problems varied between athletes, involving a range of adverse events such as:

*"having challenges being at home, she'd fallen out with her brother, she'd got herself in financial difficulties."* (P8)

*"problems with the family relationship and arguments with parents."* (P4)

*"she had a lot of other issues with kind of her boyfriend and she'd lost her funding... and just generally was struggling with a university degree... struggling with dissertations...and she'd missed the exams because of her injuries and getting operations... psychologically she was still messy from the previous set of stuff that had gone on."* (P11)

Essentially, the *characteristics* or *size* of the issue was not necessarily of relevance, but rather it was the presence of the concerns that caused athletes to become "*completely preoccupied*", "*distracted*", a "*vacant person*" who "*wasn't taking on any information... couldn't make decisions*", "*struggled to concentrate*" or "*couldn't focus on things*". These inherently negative distractions often had consequential effects for performance as athletes were unable to focus and move beyond their problems, to concentrate fully on their sporting demands. Practitioners implied that athletes' preoccupations affected their ability to cope with, and prevent, the transfer of well-being worries into their performance.

When practitioners spoke of athletes performing well, they were perceived to be coping well with their current personal situation and circumstances, whether these were positive or negative. They were described as not having “*any of that sort of baggage*” or “*no real concerns*” (P5) which contributed to them coping well for their performances:

*“They talk about how actually if I’m happy off the court or off the pitch or whatever it is, I actually perform better because I’m not worrying about what’s happening at home, I’m not worrying about my degree, I’m not worrying about all these other factors, all I’m worried about is what’s going on, on the pitch at that particular time.”* (P11)

Not all of these instances involved athletes with high well-being. On some occasions where athletes had good performances, their well-being was low, but the prevailing factor related to being able to “*perform on any given day when stuff is going on... sometimes there isn’t a time to focus on it, but then they need coping skills to just deal with the task in hand [the performance]*” (P1).

**5.3.3.2.2 Coping: Awareness and confronting.** Professionals indicated that the foundation for facilitating athletes’ coping strategies was to first assist them in recognising the potential for external distractions within their role as the *person* to interfere with performing as the *athlete*. Here the practitioners appear to be inserting themselves within the processes associated with the relationship as, in terms of employment, it may be in their interest to do so. Practitioners discussed working with their athletes to generate awareness and understanding of this:

*“I think one of the key things we do as PDW’s and lifestyle advisors is the fact that we try and make people aware that whatever is going on off court, off pitch, can often have an impact as to how they’re going to behave when they get on court or on pitch... Actually, if you’re worried about something or are concerned about something, there is a high chance that when you’re performing it will be at the back of your mind and, therefore, if it’s at the back of your mind you may not perform as well as you may have wanted to because you were worried or concerned about it.”* (P4)

Following the increased awareness of issues occurring that may have an effect on performance, professionals articulated that the awareness must be acted upon. A demonstration of willingness and courage to address what is going on was perceived as potentially able to determine, or at least contribute to, what happens in subsequent performances. Once development of awareness had occurred practitioners indicated that it is important for athletes to seek out ways to cope with their problems to prevent ongoing performance issues, as illustrated in the example below:

*“There was almost like a look in his eye and I was like something is not quite right. He then rang me about two days later at about 10 o’clock at night and just was like waah, this is going on and can we meet?... As soon as he then started to put some things in place, started to talk to people about it and actually shared the problem he really, really quickly rebuilt. He got back in the gym and he got focused, his injury was a lot better*



*and he basically had a four-week build-up to being selected for the Worlds, which he did get selected. He was just an example of someone that once he'd identified that right, this thing is blocking my performance, this is distracting me, it's making me feel really stressed, he absolutely turned things around to the point that then he was really looking forward to performing and yeah he performed really well at the Worlds. He was in the medal winning team. We reflected...we went for a Starbucks just after the Worlds and we just sort of said if you go back eight weeks he was in a dark place and he was able to turn things around and I think that yeah, just because he'd got stuff in place, he'd got strategies to cope, which I guess shows the absolute influence and impact that something well-being wise can have on performance because had he never come and said this was a problem, he might not have even got selected.” (P8)*

This example illustrates how the athlete first had to *recognise* that there was a concern that required attention and subsequently had to *cope* to alleviate the distracting and destructing effects this was imposing on their training and performance environments. Professionals also expressed that often the athletes' issues did not noticeably present themselves and may actually be concealed as other types of problem:

*“As a cricketer it's [the yips] probably the worst thing you can get as a bowler because you don't feel like you are releasing the ball with any skill and it can go over the wicket-keeper's head...it's about as low as your performance can go but also its career threatening, it's highly embarrassing... We talked a lot about performance and...managing the anxiety around it... without going into the ins and outs of it...it transpired there was something going on in his personal life, which was deeply troubling to him that was causing him a lot of anxiety...and he hadn't made the link that actually it's starting to affect his cricket as well because he was generally in a state of anxiety in his life. So I would say that's where well-being and performance at a very extreme level interact... I didn't even see that first of all because he hadn't mentioned it.” (P10)*

What the practitioner initially thought was a performance problem actually appeared to be underlying athlete well-being issues. The level of self-awareness was considered to be individual to each athlete and would influence how well athletes could cope with the interaction of their well-being and performance. This *individuality* will be discussed later on in the results section as a common thread seen throughout the practitioners' narratives.

These examples represent the perception that performance was adversely affected and linked to athlete's ability to cope with the circumstances surrounding them personally. Following identification of, and attention to, their personal challenges and complications, athletes' performances were often positively reframed. Practitioners perceive that an athletes' well-being has significant implications on performance because of the potential for well-being to “*affect them if the individual isn't able to cope with it*” (P13). Athletes may need to resolve or develop certain strategies to deal with well-being factors so that “*when the high challenge comes they've already got some room or capacity within themselves to deal with it... more ability to be in the moment, to deal with the stuff that happens*” (P1).

**5.3.3.2.3 Coping: Non-sport role adoption.** Within the professionals' narrative of *coping*, the different roles of the *person* and the *athlete* emerged as a means of coping for athletes to maintain their sense of well-being in particular ways for performance. Adopting *different roles at different times* appeared as being beneficial for athletes' performances. Having meaningful non-sport roles was often considered desirable in terms of helping athletes to maintain a general sense of well-being. Practitioners stated that their athletes often performed well when they had "*interests away from the game*" (P9) and "*a balanced lifestyle where actually sport isn't everything*" (P11). Having other interests outside of sport allowed the athletes to, in one sense, simply "*switch off from the sport, so that doesn't become all-encompassing*" (P7). Being able to escape their sporting world, even for short periods of time, by which amongst other things to reflect and to regain composure and motivation to even start all over again the next day, was key to the athletes' coping for positive performances indirectly through well-being maintenance. Practitioners recalled instances where athletes were struggling within their performances around times where almost every aspect of their life was sport-related with no respite from their sporting life.

*"They were unhappy in terms of home life. I don't think they were getting much contact with people outside of their sport... they were living with someone from the sport, so kind of every angle was the sport. They had just transitioned, so they were doing a university degree but decided to take a gap year, just given the time... so they didn't really have anything outside of their sport...they weren't getting any switch off really from their sport... impacted negatively on their performance...coaches reports were that they weren't looking as fresh as they had done previously, they weren't getting the scores that they were previously."* (P7)

This quote emphasises that although adopting a solely athletic role is often on the surface perceived as beneficial for performance, it can cause athletes to become unhappy, feel consumed by their sport and may have detrimental performance effects. Without having some form of *escape* periodically through other interests, athletes were considered, according to the practitioners, to be at risk of becoming stale and overwhelmed by their sport. These interests ranged from trivial activities such as "*just watching box sets*" to take their mind away from fixating on the training session or performance, to "*ideally... developing yourselves personally and professionally*" (P7). Practitioners provided examples of stories where athletes actually felt a sense of comfort and security in knowing they were working and developing themselves towards a second career:

*"I can think of at least one really strong angle of where having that plan B and developing towards that plan B has made someone really settled and therefore impacted positively on their performance. So, where there was a potential for them to get quite unnerved, thinking that they are coming towards the end of their career and what next, those doubts start to creep in. I think that person has been quite proactive in*

*making sure that they develop themselves as fully as they can whilst they are competing, but also manage that really well. So, I think the idea is that everyone is developing something outside of their sport, but I think the challenge is that it needs to be managed... some people have the capacity to do that better than others, because those that manage it well, then it works for them and those that don't manage it well it has the potential to be a negative distraction and therefore to negatively impact on performance. Then... it's that vicious cycle of I'm not performing, so my self-esteem is dropping and I'm not confident in my performances. So, I think the ideal is...people have that kind of development personally, professionally outside of the sport and I guess they then...need to develop the skills to be able to manage that whole piece rather than just be managing one thing.” (P7)*

Practitioner seven outlines how this athlete demonstrated how proactively developing their role as the *person* took away some of the anxiety associated with the uncertainty upon termination of their sport. Although the transition out of sport was not considered to be related to the athlete's performance, practitioners perceived that the ambiguity of this event by other athletes was interpreted negatively. Their anticipation may have caused distraction whilst still actively participating and performing in their sport. When discussing an athlete struggling in their performance, one professional stated:

*“he didn't really have much of a plan outside the game... he was getting very anxious about the fact that he was very close to being released and... he knew that every performance counted... doubting everything... you could see the pressure just building up.” (P9)*

This quote suggests how the athletes may have felt a sense of desperation to do well in their sport, which may be linked to a lack of preparation and development of themselves in other life areas. By having their *“self-worth being bound by their sport”* (P5) the pressure of this may have become too much to handle leading to negative performance effects. Elite athletes often have strong athletic identities (e.g. Stephan & Brewer, 2007) and are clear as to their commitment, priorities and sacrifices required to be an athlete. By athletes having some idea of what their future may look like, they were considered to experience less pressure within their performances and *“freedom to be able to play without that fear”* (P9). Their performances were perceived as being *better* due to the sense that their sporting success was not the only thing that mattered in determining them as being successful in life, and the associated pressures that come with this. However, developing this future plan was not considered appropriate for every athlete:

*“I think some of this almost is determined by where the player is during their career because some of the young players will say look all I want to focus on is cricket, I don't want any distractions...I don't want anything else that will dilute my time spent on becoming a better player.” (P9)*

The practitioners' stories demonstrate what amounts to a fine line between focusing purely on the sport to eliminate completely or reduce distraction and having other interests to focus on

for well-being and peace of mind. Both were considered as having the potential to impact on performance if not managed appropriately. Practitioners' experiences highlight the benefits to athletes of developing other roles away from sport. However, the fact that *“some coaches can see activities outside of the gym or off the field as... a distraction and whilst they might be that way, they are sometimes a positive distraction”* (P7). Managing the demands of both pursuing and engaging in another career, whilst actively training and competing at the elite level, without each causing interference or negative distractions for performance was one of the challenges athletes were perceived to face within the coping narrative:

*“something outside which doesn't mean the focus is taken away from the sport, it's absolutely in many cases, is absolutely their priority, but it's just allowing something to be there without it being a threat to the time in the gym or on the field I think”* (P7).

**5.3.3.2.4 Coping: Athletic role adoption and compartmentalisation.** The athletic role was also commonly referred to by the practitioners as being applied as a coping strategy for athletes to accomplish good performances regardless of struggling with well-being issues. In these instances, athletes were experiencing difficulties such as having *“something that they're dealing with outside of their sport”* (P8). Practitioners expressed times where athletes had *“a terrible personal life... off the field their life was a car crash”* (P9) or were *“in a very bad place emotionally”* where the athlete was *“down”* and their *“well-being was low”* (P13). Despite enduring these circumstances, which on the surface, would appear as having the potential to disrupt performances, professionals indicated that on some occasions athletes' performances were not affected by the negative factors in their lives and they had at times been *“absolutely outstanding”* (P13).

When asked to comment on this interaction of well-being and performance, they discussed how sport was perceived as being used as a type of *“escapism”* (P8) and that athletes would *“hide behind their sporting identity to manage their issues as a performer”* (P1). When a specific athlete *“immersed herself in the sport, she lost the identity of the person that she was with the problem and she was out being an athlete and could almost just distance herself from it all”* (P8). By solely becoming the *athlete* during performances, the issues attached to the *person* struggling could be temporarily overlooked, as long as they were not *“anything maybe to do with your physicality and your capabilities of moving in space and seeing things”* (P12). Practitioners described these methods of *“compartmentalising”* being employed in an attempt to separate the interaction of the *person* and *athlete* roles for the period of time where performance was needed. Professionals highlighted that under these circumstances athletes often perceived their sport as an *“outlet”* or a *“release”* where their *“energy and anger and*

*frustration came out on the field and that was almost what drove them*” (P9). The sport or the performance within the sport was seen itself as *“their way of coping”* (P8).

All the athletes had the potential to experience significant distress in their lives in line with personal factors. At the elite level, this distress had occurred alongside significant competitions and career-defining moments. Professionals expressed that using the athletic role as a coping mechanism for the stresses of outside life allowed athletes to be *“present, fully focused”* (P1) for their performances. When well-being suffered in general, sport acted as a provision of opportunity for athletes to not only escape their problems, but to transform or enhance their well-being:

*“Something personal that had happened to her which massively affected her. She was scoring really highly on that [depression measure] over a period of like two months, she'd been referred to a clinical psychologist, she was working through all of that, was in... a pretty bad place. There was a meeting around whether she should be going out to do one of the tours... a lot of the medical team thought that it wasn't the best thing for her to do but actually looking at what was stressing her it was at home and for the rest of the team to go away and for her to stay in the environment that was stressing her out, we just said even though it's at high risk, we said actually let her travel, let her go away with the team and if it got really bad she could fly back. She actually went out in that situation when stuff was really hard at home and she played absolutely amazingly, performed really well... She hit sort of three sixes and made history in a women's game... her well-being scores at the end of that were significantly higher than they were before she got on the plane... I think she immersed herself in the sport”* (P8)

Whilst clearly this athlete was dealing with personal difficulties, leading also to mental health concerns, continued involvement in her sport was anticipated by support staff as favourable and more beneficial than remaining solely within her difficult personal environment. Removing the athlete from the challenging situation and the decision to perform regardless, allowed her to thrive and even improve her psychological assessment scores. This example highlights that the process of performing with low well-being, or even ill-being, is possible but under favourable circumstances and considerations. Practitioners perceived that if their athletes' well-being within the sport context was good and they felt content within the sport milieu they could leave their *“baggage at the door”* (P13). Even those with *“hellish lifestyles outside of sport”* could still perform through the view that sport was *“the only thing in their life that they could keep control of”* (P6). If the athletes could compartmentalise between their personal circumstances and the opportunity their sport provided for them to avoid having to engage with these personal issues, then well-being was not considered to predetermine their performance.

Sometimes athletes experienced delayed influences on their performance as a result of negative well-being events. One practitioner described this within one of his clients where *“her mother got killed in a road accident and she was clearly in a lot of distress, a lot of shock, but*

won her next tournament and it was later that her performance suffered” (P10). It appears this athlete may not have been affected by the reality of this tragic event initially and her grief influenced her later on, which then interfered with those corresponding subsequent performances.

One practitioner discussed an instance where the low well-being of their athlete was resulting from both personal and sporting issues:

*“One athlete, a footballer... he had things going on at home actually, he'd fallen out with the manager, the manager hated him because actually he was sleeping with the manager's daughter and it was messy, so there was that issue... the player had just split up with his wife and... who he was now seeing was the manager's daughter. He had two young children and the wife basically didn't want him to see the children... also he had been diagnosed with depression, so he was a mess.”* (P11)

Despite the athlete’s chaotic life and problems within the sport milieu *“every Saturday he went out and he performed well... he was able to block out that sort of stage of his life... almost see it as a release, so sport became his I don't have to deal with all that shit type moment”* (PL11). As both of his environments were presenting difficulties, it appears that the actual performance itself was his coping mechanism, highlighting an even more prominent example of compartmentalisation in this case.

Other practitioners had examples of athletes where their well-being was *“poor of late...his well-being within a sporting environment... outside he is a happy-go-lucky lad”* and *“his performances have been affected as well as a result”* (P13). The well-being within the sport setting of this athlete was considered to be low as he was described as a lad who:

*“Practices well technically but hasn't stuck to his practices, such as developing his mindset and competing in his practices... he neglects it and gets frustrated, so gets down, gets really hard on himself when things don't go great, doesn't put it in perspective. So, when he drops a shot he just goes into self-destruct mode, as opposed to putting it in perspective that over four rounds, one shot is one of 280 so that's what... 0.3%, so its next to nothing... So, he's self-destructive.”* (P13)

According to the practitioner, this athlete seemed to have no issues with his personal well-being, but rather his problems within the sport were affecting him and his performances. This clearly illustrates an example of an athlete not coping with his sporting circumstances, causing him to react badly. It appears that as he was unable to compartmentalise from his issues as they were sport-related, so his performance suffered.

**5.3.3.2.5 Coping: Addressing the source.** Practitioners expressed that while these may be suitable strategies to obtain performances alongside times of struggle, *“further down the line things start to unravel and they can't keep up that performance consistency”* (P4). Under problematic well-being circumstances, questions such as *“what happens when the performances don't work? If they don't happen? So that's your only release and suddenly*

*performances dip*” (P9) were proposed by the practitioners as needing to be asked. The professionals indicated that these methods were “*not sustainable*” (P2) and:

*“It does eventually blow up at some stage and while it goes on for a certain period of time it's tiring to keep blocking out things that actually probably need dealing with... if you're going to keep covering something up or keep blocking out, eventually you're going to have to deal with what's underlying that because you can't just keep plastering something up. You've got to get to the stage where actually you understand why something has happened the way it has, and by doing that you help athletes develop resilience and almost self-regulation to some extent. I think with kind of well-being and performance, if you can help an athlete to self-regulate you've done your job”* (P11)

This was proposed as a longer-term and healthier solution to managing the interaction between well-being and sport performance.

As seen within figure 5.3 professionals also indicated two sub-narratives that were suggested to influence the athletes’ coping ability: (1) the athletes’ environment and culture and (2) the support they received. These sub-narratives emerged frequently throughout the practitioners’ stories and in line with multiple aspects of the coping narrative. These will now be discussed.

**5.3.3.2.6 Coping: Sport Environment and Culture.** Features associated with the sporting environment were proposed as significant to athletes’ coping, specifically where personal well-being was low, which suggests that perhaps adopting the athletic role to promote performances may only be appropriate, and a complementary alternative to the role of the person if it is an “*environment for people to thrive in and to enjoy*” (P13). If the environment within sport fosters a positive atmosphere and provides a facilitative setting for athletes, this is where performances may still occur without well-being:

*“It's the environment we're trying to create for these youngsters to make them feel like they've got a family when they come into it. So, they feel like they are supported. It's all about enjoyment. So, our principle is that these lads have a smile on their face whenever they come into camp... I try to do that whenever it's a camp session with golf, rugby or football it's about trying to make sure that these lads are enjoying themselves and they feel like they are part of something. So, even if things don't go great outside of it, they've got that identity and that link within it.”* (P13)

This quote illustrates another example of the practitioners inserting themselves into the picture of the well-being – performance relationship. Practitioners appeared to assume responsibility themselves, or assign this to other members of the sport milieu, for providing the right environment for this to occur:

*“The coach and the support staff are critical to make these individuals feel that they are part of something, they are worthy, and they are special, and they can do fantastic things if they work hard... the support network and the support coaching setup is critical in that environment.”* (P13)

The professionals suggested that not only would the input from the different people surrounding the athlete have an influence on the environment they are exposed to, but that the culture of the particular sport was also significant to this and would affect the relationship between well-being and performance. The practitioners discussed how *“different sports have different sorts of systems... some sports do have the clinical psychologist, the sports psychologist in place to deal with the well-being, whereas other sports don't have that at all”* (P11). Essentially the availability of resources and different services within each sport was suggested to *“lead to very, very different responses to different situations”* (P11), which implies diversity in the provisions for athletes in response to well-being concerns. Comparing specific sports, a practitioner proposed that it is *“very rare within football that actually there would be that support in place... whereas within other sports, so canoe slalom... that's a readily available source of support mechanism”* (P11). Part of the cultural influences upon the relationship also related to the value or *“how much emphasis”* (P11) was placed on well-being by the sport. Again, referring to a sport in particular one practitioner stated: *“the amount of football clubs that I know that would just say I don't care about well-being at all and they'll say that to the players as well”* (P11). Another practitioner expressed the difference it makes *“having a culture where well-being is valued or mental health and physical health is valued beyond just performance... a culture which recognises that, where athletes are expected to try to work on their well-being rather than just their performance”* (P14). One of the ways the sport setting was suggested to make athletes feel at ease and *“comfortable in that environment”* (P6) was by providing an atmosphere of security and reassurance, which may have allowed the athletes to see their sport as a safe place to reside:

*“One of the things that we've worked really hard on in our environment is encouraging players to be open and I'll start role modelling that as much as possible. So that could be as far as, our head coach is very vigilant and very aware of how much personal stuff he's prepared to disclose, deliberately trying to share some doubts, share some get vulnerabilities so that people around him look at that and say well if he's prepared to do it then I can too.”* (P13)

**5.3.3.2.7 Coping: Support network.** Practitioners frequently spoke of the significance of the *“social support around them [athletes]”* and how this *“enabled them to cope”* (P2) with their well-being and manage the interaction of well-being and performance. Often when athletes had performed well they had *“a good family support system around them... good social support from parents... the right coaching support system... good support system from a girlfriend/boyfriend/partner that matters”* and they also *“accessed support when they needed it”* (P14). The members of the athlete's network were able to provide aspects of support in different domains across both sport and general life. The professionals proposed that athletes



would often go to people who were part of their non-sport life domain “*people at home who don't ask them about sport, just don't want to know about sport, don't want to know anything*” (P11) as a way to escape from their sport, similar to the strategy identified and discussed earlier in the results.

*“The athletes who I've worked with who have had the best psychological well-being have had partners or family who know nothing about the sport... I don't know if there's a correlation there... it's very speculative... there is to my mind certainly something there in terms of... almost how actually completely getting away from the sport because their wife or husband or their children know nothing about what they do”* (P11)

As well as escaping from their sport, people in these roles were also considered to be able to “*give that perspective on it like, oh what do you mean you've just had a bad training session, it's not the end of the world*” (P7).

Athletes were also suggested to have sought support from “*people in sport who can talk to them about performance and how they've done, how things went, what we could do next*” (P11), and who “*understand the sporting world*” (P7). These individuals were considered to provide both sport-specific assistance but also more personal support:

*“People who consistently perform, it's very clear that their needs are being met by the coaches and the support staff around them in terms of supporting their self-esteem, supporting their emotions, giving them the technical and the tactical knowledge that they need.”* (P2)

**5.3.3.3 Individuality.** As seen in figure 5.3 a thread of *individuality* within the practitioners' stories is prevalent and this was considered to influence all aspects within their explanations and narratives. Individual levels of resilience and self-awareness, and differing perceptions were some of the key psychological aspects considered by the practitioners within this part of their stories. These will be discussed in this section.

When contemplating the complexity of the relationship between well-being and sport performance, practitioners frequently highlighted that the nuances and individuality of each person may in fact be partly responsible for this complicated association. Each person has “*a slightly different balance in their life and what will be right for one person might be different for another*” (P4), which seemed to be why they found it difficult to offer a straightforward explanation of the interaction. Practitioners were cognisant that each of their athletes had their own individual needs and “*definers for happiness*” (P12). They highlighted that the elements of a person's well-being and the levels of these components would be specific to each individual and “*for somebody it could be it doesn't have much of a performance impact but the next person it could have a huge impact, positive or negative*” (P8). The multifaceted nature of a person's well-being combined with the individual's “*intrapersonal qualities... adversity coping... other aspects of mental toughness, some coping skills or... coping style*” (P14) was

perceived as influential to the extent that their well-being affected athlete performance. Ultimately, “*who people are and where they've come from*” will affect their ability to cope with their well-being and “*that's going to dictate how everything else happens*” (P5). Different athletes could be faced with circumstantially similar situations but their various dispositions to cope with those circumstances was considered to determine the outcome and the performance:

*“I remember the players where there was a court case and one player it affected him greatly and his form on the pitch really went down and there was another player that he was fine, actually he was performing at his, still performing at his best and...from an outside you could see that having something going on in one's life, one person's well-being probably wasn't particularly good at that point, it greatly affected him, the other person under the same charge probably had a different approach to the charge he was under and the court case that was going on at the time and was performing okay and yet they were both ostensibly in the same situation, as in we are faced with a court charge, we could go to prison and yet still having to perform as a professional athlete at that time. One clearly found that a very difficult thing to do, the other not at all.”* (P10)

Regardless of the fact that these two athletes were experiencing the same event, the practitioner indicated how their performances did not display similar characteristics. Underpinning these differences, practitioners expressed that the ability of the athlete to “*cope and be resilient within things... that's quite critical*” (P13).

**5.3.3.3.1 Individuality: Resilience.** Resilience was acknowledged as a key attribute when professionals interpreted whether their athletes' well-being was linked to their performance and often arose during instances where practitioners were discussing athletes performing well with lower levels of well-being.

*“There is definitely this sense of resilience when things aren't going so well in your life. I think as you get older and as you get more experienced kind of more negative things are going to happen. You'll face more challenges and therefore it's a test then of, about managing your emotions, managing your appraisal of those challenges to try to help maintain your performance... I think you get exposed to more stressors gradually as you get older, with age, or with experience, or with level and it then becomes a test of managing those stressors with better appraisal of those things.”* (P14)

Practitioners reported how the perceived level of resilience was something *inherent* within a person's character and that this was often *built through personal experiences*. Exposure to challenging events across the lifespan was considered to influence how athletes approached the challenges they faced within their sport. Again, each athlete had experienced their own journey through life with varying ups and downs. Their responses to these fluctuations were perceived as providing the athletes with the means to manage through issues arising later on in life:

*“Someone who doesn't tick all of those boxes... you can see that in themselves their well-being definitely isn't optimum, and it is something that is a concern. Having said that they do still go out and give those performances.... the athlete I'm talking about is a para-athlete, so I don't know whether kind of that life experience of, it was a trauma,*

*as opposed to... so it is an acquired disability rather than being born with one. So, I don't know whether that's kind of given them some kind of different aspects of resilience. Because I would say kind of working with those Olympic and Paralympic sports I kind of do see that the Paralympic athletes can have more going on and still seem to go out there and perform... whether it's that developed resilience from the experiences that they've been through, the experiences they've had I don't know... the life experiences... whether it is a perspective thing of you know worse things can happen and knowing that it's not the be all and end all.” (P7)*

Despite resilience often being perceived as a trait, or something that is learned following exposure to challenging circumstances, professionals discussed instances where they worked with athletes to nurture their skill set and build on their robustness to deal with things.

**5.3.3.3.2 Individuality: Perception and Self Awareness.** One significant aspect contributing to whether athletes were able to perform during times of stress or well-being dips related to how they appraised their surroundings. Where athletes faced issues in their personal lives and executed their performances well, they often appeared to have perceptions where setbacks were taken as *“a challenge as opposed to a threat... rising to the challenge of it”* (P7). Perception was considered as being somewhat responsible for whether athletes performed well with low well-being in terms of an evaluation of their ability to cope with their situation. Practitioners perceived the individual level of self-awareness each athlete possesses was what may have made the difference towards how they reacted under certain circumstances that were presenting.

*“I think the more conscious an athlete is about their decision making, their thinking, their emotional responses, their own ability to regulate, the more quickly they can resource themselves and/or make the right decisions.” (P1)*

Essentially, individuality was a notion that ran through all of the professionals' stories about their athletes' experiences of well-being and performance and how these two features interact. Their beliefs highlight that this relationship may not actually be between well-being and sport performance, but rather, the individual and their knowledge of *“how to look after themselves... what to do when life gets tough”* (P2), their access to particular resources, development of appropriate and relevant skills to address negative issues, or to cope with these issues so that performance isn't affected by them. Athletes who performed poorly *“lacked some of the skills to then kind of switch all of that off, because they were less experienced when they went into the sporting arena therefore impacted negatively on their performance”* (P7). Once all of these things are in place it seems perhaps that each individual athlete may have more chance of performing even if their well-being is not necessarily good. Practitioners mentioned working with their athletes to *“affect their coping resources”* in terms of being able to *“shape their perceptions of themselves and their situation”* (P10). They highlighted the importance of

helping athletes to manage their perspective for the short-term when their current situation may not be resolved immediately in advance of a performance, but also longer term so they may be less likely to end up in the same or similar circumstances in the future.

*“if they didn't feel good about themselves or their relationship wasn't good, that you've got to show them that yes that might be the case right now, you can't change your relationship, but actually for the next two hours that isn't going to change... Over a period of time you want to be able to shape and help them modify their thinking or shape behaviour which is more conducive for performing well. Equally on the other way you'd like to help them start to see that, help them to shape their own, or start to modify their life in some way that is going to reduce the chance of that happening more frequently or get them to see that actually that's more important than they'd perhaps realised.” (P10)*

#### 5.4 Discussion

The aim of study three of the thesis was to further advance knowledge on the relationship between well-being and sport performance from perspectives other than those of athletes (who have been explored as participants previously within the PhD), more specifically those of sports practitioners. This aim was achieved by exploring the narratives of sports practitioners who regularly provide support for athletes in areas relevant to this topic, with regard to their perceptions of this interaction. The study focused on the experiences that these professionals had been exposed to through their athlete clients and explored their stories that emerged as a result of their immersion and role within this environment. Results indicated practitioners believed well-being and performance to be indisputably related, but that this association was considered complex, with some inconsistency amongst the sample as to the nature (e.g. strength and type) of the connection. The key focus within the stories of practitioners was a dominant narrative of *coping*, which was perceived as the overriding feature present within this interaction. Role adoption was highlighted as a central factor within *coping* and the current study is among the first to propose the sport environment and culture as significant to the interaction between well-being and performance. Practitioners assumed responsibility for their own roles as important for facilitating athletes to cope with the navigation of the relationship. A recurring theme throughout practitioner stories was the influence of athlete individuality upon the relationship, and resilience was considered specific to each individual athlete.

The current research advances knowledge as it is the first study to present sports practitioners' definitions of well-being through an empirical database and illustrate their *stories* about the relationship between well-being and sport performance. Such data provides a novel insight into how such individuals, who formally support athletes regarding the areas of well-being and performance, define the concept, and view this relationship and the factors perceived

as important contributors within it. The results of the current study demonstrate some parallels to those in study two of the current thesis, highlighting emergence of some similar characteristics to aspects considered by athletes as well-being definers and mediators to the relationship within the narratives proposed. Practitioners' definitions incorporated more psychological literacy (e.g. terms such as resilience and identity) than that of the athletes, which is perhaps to be expected when considering their professional background and training, probable exposure and familiarisation with the academic literature and language, and experience in this field. It may be acknowledged however that to identify a term may not necessarily reflect the application of that concept within practice and that there could be differences between espoused knowledge and knowledge in use. Essentially, practitioners told similar narratives to those of the athletes in study two, providing further evidence for the acknowledgement that the relationship between well-being and performance is both complicated and non-direct. Akin to athletes' perceptions in study two, professionals expressed the general view that well-being was fundamentally considered beneficial for performance because it could increase the likelihood of it, but again that well-being does not determine performance. The intricate and non-concrete interpretations about the relationship again stemmed from perceptions of the role of different elements that regulate the interplay between the two factors. There were some consistencies between the content of practitioners' stories regarding these elements and those of the athletes' in study two, however the plots were not identical, as each cohort placed emphasis upon particular aspects and ideas in different ways. Practitioners will likely have been exposed to different social scripts to those of athletes, and it is possible that the education they have received will have influenced their use and interpretation of academic terminology and concepts. Knowledge of the resonance between those stories told by athletes and practitioners may evoke confidence between both parties that they share a mutual understanding of the interaction. Perhaps there are similarities because the two groups interact with each other. Awareness of the dissonance may provide opportunity for each to learn from the other by perhaps bringing attention to particular aspects that may not have been considered or highlighted respectively.

Exploring the narratives of practitioners' makes knowledge contributions that build upon those of athletes in study two, as they can provide external viewpoints, which can often recognise details that may be overlooked by those who are immersed within situations themselves. They also present stories constructed as a result of experiencing the relationship from a much broader perspective. Athletes can make inferences about the relationship from only one standpoint, that of their own. The practitioners as participants in this study, however,

have reportedly had exposure to this interaction through their work with multiple athletes over time, and have subsequently likely dealt with a range of individuals and the circumstances they present. It is possible that working with multiple athletes will have influenced their stories and their perceptions about what goes on within the relationship according to the diverse experiences of their clients. This was driven by the suggested focus and the type of questions that were asked, which invited practitioners to give a general perspective of their views about the landscape of the relationship first, followed by specific and illustrative case examples from their own experiences of particular instances.

The current results extend knowledge by highlighting that the key suggestion by practitioners was that *coping* with the demands and challenges influencing athletes' well-being is perceived as more critical to athletes' performances than their actual well-being state. Athletes can be experiencing issues within their well-being but can still perform if they are able to cope with them. Coping is defined as a dynamic process of "ongoing constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, page 141). It is the management between the interaction of a person's inner beliefs about the self, goals and values, and their situational environment (Lazarus, 1999). Although theoretically coping has been developed around the aspect of stress (Lazarus, 1993), the premise appears relevant to apply to the current findings because of affinities with the apparent decision-making process that seems to occur when athletes decide how they are going to manage issues that affect their well-being in order to achieve optimal performance. Athletes' lives are also often stressful, so the application of a stress-based understanding is relevant. When considering intervention for athletes in an applied sense, an appreciation of the well-being – performance relationship in line with coping might be helpful to understand how they work through these issues. Elite athletes have previously been shown to alleviate performance stressors with both problem-focused and emotion-focused coping responses (Schinke et al., 2012). The findings of the current study advance literature by proposing that practitioners believe elite athletes manage the interrelation of their well-being and performance through the application of a range of coping strategies, such as problem-focused (e.g. where athletes confronted and overcame issues within their well-being to change or resolve the detrimental circumstances; Lazarus & Folkman, 1984; Lazarus, 1993) and emotion-focused or avoidance (e.g. compartmentalising or withdrawing from identities physically or psychologically to temporarily mitigate stressful reactions associated with well-being concerns, but with no immediate change or resolution to actual well-being conditions; Lazarus, 1993).

The notion of control has been suggested as key to the coping process in sport (Nicholls, Holt, Polman & Bloomfield, 2006), with more favourable sporting outcomes with the application of more problem-focused coping strategies being proposed in scenarios where personal control is available, and emotion-focused coping strategies in scenarios of reduced control (Aldwin, 2007; Kaiseler, Polman & Nicholls, 2009, 2012; Nicholls & Polman, 2007). The current results similarly propose that athletes psychologically and emotionally disengage from personal circumstances to generate successful sporting outcomes because of the lack of control they may be feeling in their lives, and the potential for perceived control over their sporting domain.

It appears athletes may implement particular coping strategies to manage different types of circumstances (Calmeiro, Tenenbaum & Eccles, 2014), depending on the temporality and proximity of their issues to the approaching performance. Practitioners too deemed relevance for the different coping methods in relation to time within this study. Emotion-focused and avoidance type strategies appear to have a role in providing short-term opportunities for performance success regardless of external circumstances. However, practitioners propose athletes should eventually confront their well-being concerns with what appeared to be more problem-focused approaches when appropriate to do so, and there is time to focus and work through the issues for longer-term solutions. The present findings suggest that when navigating the relationship between well-being and sport performance practitioners may wish to encourage athletes to develop a range of problem, emotional, and avoidance based coping strategies to better prepare for all eventualities that may arise within the multifaceted and dynamic nature of the interaction. This would enable athletes to be equipped for both instances where there is, and is not, time to resolve well-being crises before performance, so they always have a form of coping response, which is likely preferential than no attempt to cope. For athletes at the elite level to be efficient in applying these methods of coping to manage well-being and performance they cannot be expected to have them naturally, but in fact would need to foster and develop them from early on in their careers. Sport science support is usually in abundance at the elite level but often limited or absent prior to this, which means there is potential for sports to lose athletes before they reach that stage. Not necessarily because athletes are not talented, but because they may not be adjusted to cope with the pressure, as support delivery, screening and intervention may not be provided early enough in the development cycle. This may suggest it may be most effective for athletes to work consistently with relevant stakeholders (e.g. SPs and PLs) in development squads and at age group and junior levels to

acquire and practice these skills, so they become adapted and experienced at applying them, and they are embedded by the time they reach the pinnacle of their careers.

Congruent with results of athlete narratives from study two of the current thesis, practitioners in the present study highlighted athletes' adoption of athletic and personal roles under different circumstances, to manage well-being and its interaction with performance. Essentially, athletes were considered by practitioners to engage in temporary avoidance strategies, by assuming either their role of *athlete* to evade personal problems, or their role of *person* to escape from sport. An over-identification with sport can be detrimental, especially when in association with career transition and retirement (Beamon, 2012; Park, Lavalley & Tod, 2013). The current findings add to knowledge by proposing that alignment with multiple roles is useful while actively engaged in the sport career because the different roles can act as coping resources for performance management when well-being fluctuations occur.

The role of *person* was considered a key asset to the relationship because of its well-being maintaining qualities, such as a means of sport escape contributing to a sense of life balance (Kruyt, 2017; Pink et al., 2015). Advancing on this point, members of support networks within athletes' personal domains who were oblivious to the details and reality of elite sport were perceived by practitioners to facilitate this escapism, highlighting the value in having people who can offer a sense of detachment from sport. Development within the personal role also provided comfort and security with regard to future post-sport career preparation (Lally, 2007). Although both athletes and practitioners recognised the reduced pressure and fear in athletic performances where some form of post-sport career-plan was in place, practitioners identified that not all athletes have this aspiration, particularly younger athletes and those earlier on in their careers. The fact that the only inevitable part of every athletes' sport career is that it will one day come to an end (Lavalley, 2005), suggests that perhaps more education is needed at the earliest opportunity regarding the potential challenges associated with the arrival of this unavoidable transition into the real-world, for youth and early career elite athletes, especially in the case that this event is involuntary and premature. Retired and older athletes, or athletes in later stages of their careers who have been through, or are preparing for, different journeys of sport-career to post-sport life transitions, may be appropriate mentors to share their experiences and challenges of this process with those athletes who struggle to grasp the relevance of developing their roles within personal domains. Actively developing as more than athletes may not only benefit retirement transitions (Torregrosa, Ramis, Pallarés, Azócar & Selva, 2015) but may promote performances through reducing both the pressure for sport success, and the anxiety about what comes next in life, which can be a worry and a distraction.



In parallel with the proposed suggestion arising from athletes' narratives in study two, practitioners raised awareness of the fact that there may be inconsistency regarding this understanding of non-sport domain benefits across the network of people that would support the athlete. Coaches have previously expressed outside interests cause concern for detracting of their athletes' concentration or distraction from their sport careers and have restricted the development of outside roles and engaging in outside activities accordingly (Park et al., 2013). Discrepancies that may occur between such attitudes across the support system may have implications for the athletes' outlook and response to developing these areas. The often-daily contact athletes have with coaches and the typically close, established bonds they share, in comparison to the intermittent exposure to practitioners such as the SP and PL, will likely influence whose beliefs the athlete would follow. The strength of this bond and the somewhat dependent relationship that can occur between athlete and coach that can develop in early specialism sports such as gymnastics (Kerr & Dacyshyn, 2000) may perhaps exaggerate this inclination to follow the coach's directions. Perhaps to ensure consistency in the communication to athletes about aspects like personal development and other such areas in the interest of well-being, elements focused on these domains could be inherent in the professional training and qualifications of everyone surrounding the athlete, from the coach to the physio, to the PL and the performance director and so on. Akin to the introduction of mental health first aid qualifications targeting knowledge and confidence of supporters (Sebbens, Hassmén, Crisp & Wensley, 2016), and the increasing recognition for such training to be compulsory in some roles and sports clubs, there may be value in introducing this with perhaps an added well-being dynamic as an obligatory part of all athlete-supporting roles. Scepticism surrounding the necessity of targeting such areas may be sold through the potential indirect performance benefits gained from engagement with roles in personal domains. Emphasis should be placed on the skills developed and support provided for athletes to manage personal roles alongside sporting roles so the negative effects are outweighed by the benefits (both current and future) of having multiple life domains. If managed suitably, practitioners are indicating that non-sport roles may act as an aid to performance, not as a threat.

Practitioners reinforced the suggestion also made by athletes in study two regarding a belief that temporarily adopting the sporting role provided performance opportunities because of the short-term well-being that could be fostered for the duration of performing. This point highlights the benefit of strong athletic roles also because they can provide opportunities for athletes to immerse themselves and forget their problems, which can facilitate performances. Where athletes were perceived to absorb themselves within the sport domain as a protective

mechanism for generating performances alongside well-being issues, professionals expanded on this idea of escape, indicating perceptions that the sport role may actually create more stable well-being improvements, which is consistent with previous literature (Ruseski, Humphreys, Hallman, Wicker & Breuer, 2014). This finding illustrates that performing with low well-being is possible and has potential for positive outcomes, but these instances must be risk assessed and managed properly to minimise exacerbation of problems. Although practitioners' stories have indicated that performances can occur without stable well-being, to implement this as a strategy in the hope of well-being improvements would be risky in the case that situations such as deselection or injury occur and therefore performances are no longer an option to improve well-being.

Taking into account other sport science practitioners, the physio or strength and conditioning coach may be requested to *patch up* an athlete physically to enable performances during sub-optimal physical condition. Considering this from a psychological parallel, there does not appear to be an equivalent response of *psychological strapping*. The question may be raised as to who is responsible for making this decision regarding the athlete performing with well-being issues? As practitioners identified, athletes have experienced times where issues were occurring in both their well-being personally and within the sport domain, yet their performance maintained, which was attributed to their ability to block out the negativity. Where athletes previously considered global well-being as a foundation and buffer for sport-related well-being (Lundqvist & Sandin, 2014), the current study indicates that both general and sport-specific well-being can buffer the effects of each other depending on the uptake of that role by the athlete. In some instances, if well-being within the sport domain was sound, regardless of the personal well-being state performance could be successful, as long as compartmentalisation was applied to cope. Perhaps well-being within the sport setting is more crucial for successful performance over athletes' general well-being? Irrespective of this proposition, practitioners emphasised how even if well-being concerns were not affecting performance presently, that these should be confronted and resolved when appropriate to do so, for health, but also to prevent future potentially negative influences in sport. The role adoption thread of the narratives emphasises the benefits of dual (or multiple) domains for elite athletes, as both are utilised and adopted at different times to allow performances to happen, and as a way of controlling for what may be affecting athletes' well-being.

Extending the findings of study two, the notion that athletes position themselves largely as protagonists in their own narratives about the well-being – performance relationship assuming accountability for the implementation of strategies was not entirely upheld within

practitioner stories. Adding depth to knowledge, despite recognising the athletes' role, practitioners also acknowledged that the sport environment and culture were significant within this relationship, specifically because of the impact and influence they have regarding the recognition for, and approach taken to athletes' well-being. Dunn (2014) found that some sports have well established well-being programs, whereas others are limited in what they offer, which affects the extent that well-being activities are engaged in. The current findings parallel this point with practitioners expressing that the availability of well-being related resources and services in different sports was perceived as influential in the way athlete well-being was responded to and managed. The current study also makes knowledge contributions by highlighting that practitioners deemed the relationship was also affected by the emphasis or value placed on well-being by individual sports. Whether sports openly express interest or care for athlete well-being or whether there is expectation for it to be developed and nurtured, was suggested to affect athletes' reactions to dealing with or managing their own well-being. These environmental factors were then expected to have potential performance implications. Although there are areas of acceptable well-being practice, support and service provision, there are still existing inadequacies regarding this delivery in some sports (The Duty of Care in Sport report, Department of Digital, Media, Culture and Sport, DMCS, 2017). The present results support current policy that proposes there is still progress to be made in enriching the optimisation of mental health and well-being in high-level sport (The Culture Health Check report, UK Sport, 2018). The acknowledgement of these shortcomings appears to be a recurring point within policy and research, suggesting a more proactive approach is needed in prioritising well-being. Perhaps organisations and funding suppliers at a higher-level of governance could oversee mandatory well-being support standards to be imposed within their contractual agreements with NGB's of all sports, to cultivate a *top-down* drive for action in this area. To maximise the effectiveness of such services, regular audits could be conducted to monitor and review the satisfaction of the provisions, ensure athletes are benefitting from formal and continued engagement and support in the right ways (The Duty of Care in Sport report, DMCS, 2017), highlight areas for improvement, and identify organisations that are operating with best practice for others to learn from. These combined suggestions could offer an effective strategy that is both proactive and reactive. If systems can be created that set benchmarks for athletes to strive towards and embed cultures that foster environments where athletes feel comfortable to tackle and maximise well-being, they may not only build a good foundation for performance, but this may also engender value for mental health.

As well as environmental and cultural factors, the practitioner narratives in the current study also propose that an athlete's individual personal characteristics may be influential when navigating well-being fluctuations and sport performance. These findings advocate that perhaps it makes more sense, not necessarily to view the relationship as straightforward between well-being and performance, rather, the individual, their interpersonal qualities and their knowledge and skills of how to look after themselves and cope with situations, determines the extent of the interaction between the two concepts. One such quality identified by the practitioners was resilience, or athletes' ability to tolerate the events happening in their life. Essentially, resilience to poor well-being and how well the athlete copes with this was considered to regulate whether well-being forecasted performance. Resilience has been defined as "the capacity of individuals to cope successfully with significant change, adversity or risk" (Lee & Cranford, 2008, p. 213). In practitioners accounts in the current study, athletes were exposed to a number of challenging situations that impacted their well-being. For example, difficulties at home, relationship strains (in and out of sport) or breakdowns, financial difficulties (personal or funding), academic struggles, injuries, clinical psychological concerns, bereavement and criminal charges. Whilst experiencing such aforementioned challenges, athletes were perceived to cope positively or negatively and unless athletes possessed qualities or skills to prevent them from doing so, these were perceived to affect their performances. Practitioners advocated that more exposure to challenge results in athletes becoming more resilient to future challenges. This notion is congruent with earlier work that highlighted the significance of adversity-related experiences for the psychological and performance development of Olympic champions (Sarkar, Fletcher & Brown, 2015) and the opinion argued by Collins and MacNamara (2012) that undergoing a variety of challenges throughout an athletic career is beneficial, or even necessary, to facilitate high-level performance. Resilience in the current study was considered to be developed in line with experience (Sarkar & Fletcher, 2014), often arising through age. Similarly, Douglas and Carless (2006) highlighted more experienced athletes viewed hardships in a positive light because of the strength and resilience fostered by successfully dealing with them. Practitioners in the current study make knowledge contributions by proposing that para-athletes, specifically with acquired disabilities, have the potential to appear more resilient than able-bodied athletes because of their perspective about the severity of certain challenges. This finding suggests that perhaps well-being is not the main focus of this interaction, but it is in fact overridden by the athletes' resiliency. If resilience is a crucial psychological characteristic for determining athletes' responses within the relationship, perhaps it is a key element to be developed with equivalent respect that physical resilience is

built, especially considering mental resilience is not something that individuals automatically possess (The Duty of Care in Sport report, DMCS, 2017). Athletes may benefit from engaging in a resiliency training programme, such as mental fortitude training proposed by Fletcher and Sarkar, 2016, which assists individuals to positively appraise and interpret demands or situations, along with their own resources and thoughts, to initiate positive change. As practitioners identified potential for superior resilience in para-athletes, there is also potential for learning from specific experiences of these individuals in terms of appraisal of their circumstances (Lazarus, 1999; Lazarus & Folkman, 1984). Practitioners may also offer practical appraisal support for athletes by encouraging and supporting them to actively engage in challenging conditions, which enhances awareness about competences to manage encounters, and may empower both proactive and reactive problem-solving (Sarkar et al., 2015).

Practitioner narratives also highlighted that it is not always obvious when an athlete may be struggling with their well-being, for example when well-being problems present masked as performance-related issues, and also when athletes experience delayed emotional reactions to traumatic events such as death of a family member. This finding suggests as these issues are not apparent, there is potential for them to be overlooked or go unnoticed which could result in transfer of adverse effects on performance. Perhaps consistent well-being monitoring could be beneficial for athletes to enable such circumstances to be captured and so that those surrounding and supporting the athlete are aware of the concerns that are present, even if not divulged verbally by the athlete. Practitioners and other supporters may then have the opportunity to be more vigilant with the support they provide. They may be prompted to initiate conversations with athletes (Moesch et al., 2018) and if well-being is regularly monitored and discussed, the timing of their encouragement for resolving concerns may be better informed. Athlete self-awareness may also be increased, and they may become more attuned to their own well-being fluctuations. Self-monitoring may be an option in sports where well-being relevant services are not provided. Longitudinal research may help to gain further knowledge regarding whether athletes are self-aware regarding periods of well-being issues and whether regular monitoring contributes to how well-being is perceived. This type of work may also identify whether well-being issues present immediately within performance or whether delays occur under different conditions when managing well-being and performance.

Making knowledge advancements about the well-being - performance relationship, the current study acknowledged athletes' application of certain methods, however, practitioners appeared to de-emphasise the role of the individual, instead giving recognition to their own

influences upon the association. Practitioners identified a number of elements they considered themselves critical for such as: (1) generating athlete awareness of potential areas where well-being issues could arise and transfer into performance, (2) assisting athletes to develop skills to manage well-being concerns in the short-term alongside performances, (3) supporting athletes to confront issues when they were ready to do so for longer-term solutions, (4) fostering a facilitative sport environment that helps athletes cope and enables performances when their personal well-being is suffering, and (5) making informed decisions as to what is best for the athlete and the potential gains regarding participating in sport when well-being is particularly low and posing a risk. Including this thread of accountability within their stories places value upon practitioners' own supportive roles, placing them as significant players in the relationship and giving indication as to the nuances in comparison to athletes stories. To position themselves firmly within athletes' capability of navigating between well-being and performance, reflects their training and it is in their interest to make themselves central to the athletes' performance. For practitioners to fulfil the above duties successfully and engage athletes with these tasks, the importance of quality, trust-based athlete-practitioner relationships built on respect are emphasised, such as those recognised in sport psychology consultancy alone (Fortin-Guichard, Boudreault, Gagnon & Trottier, 2018). These findings also fundamentally highlight the significance of comprehensive practitioner training surrounding well-being. At present, all Sport Psychologists (SPs) employed within the English Institute of Sport (EIS) system are accustomed with psychological well-being and specifically trained in Mental Health First Aid (MHFA) enabling provision of support with non-clinical and performance concerns (Moesch et al., 2018). For the most effective approaches to be employed in managing well-being and increasing the possibility for performance successes perhaps it would make sense for awareness of well-being to be inherent in training for *all* who support athletes and not just the SPs and PLs. More crucially, for practitioners to be successful in incorporating high-class well-being support whilst operating in an elite culture where the main focus is about winning, their messages about well-being cannot be in isolation. Practitioners may not have the power and scope to instil such ideas alone, suggesting the responsibility for cultivating a widespread well-being culture lies in the delivery from all those who surround and support the athlete (The Culture Health Check report, UK Sport, 2018), so that a collective message is presented. This finding illuminates ultimately that elite sport culture may need to evolve and expand to prevent effort as to well-being, carried out by relevant practitioners, from being powerless in a performance-oriented world. Sport culture change takes time to establish but is also relatively transient in nature due to the volatile system of

job/role replacement based on results. If athletes can function in an environment where their knowledge of personal issues, and resources and opportunities to manage and resolve them are fostered collaboratively through a well-being-oriented network, they may be able to maximise their chances for successful performances through good well-being.

Reflecting on practitioners as interview participants illuminated that they had been provided with an opportunity to discuss and explore their work, which they perceived was helpful, as illustrated by the following quotes: *“these questions have made me think by the way... actually they are quite good because they do hone your thoughts... you've got me thinking all things well-being now so there we go that's great”* (P12), *“I'm always very happy to talk about stuff when I'm given the chance!”* (P5), and:

*“I think of it from my perspective and I'm sure you would actually say the same, every athlete, every student, everyone comes and speaks to us, but who the hell do we speak to? So, we have to bear a hell of a lot of responsibility and burden and you know there's times where I've neglected it and I've not spoken to people and it can really affect you... having that network to speak to and to get things off your chest... you feel like you've got an outlet and that's a line to satisfaction.”* (P13).

Reflection and the sharing of experiences have previously been identified as ways of developing or enabling better coping strategies in sport psychologists (Cropley, Baldock, Mellalieu, Neil, Wagstaff & Wadey, 2016). By virtue of the study being a confidential process with some structured questioning, the professionals may have been afforded a positive opportunity to reflect on, process, and consolidate some of their experience. Although the thesis is not formally focused towards the relationship for practitioners, by involving them as a cohort in the research process there may have been a secondary benefit, though unintentional, that may be helpful for these people moving forward. In light of practitioner self-care (Haberl & Peterson, 2006; Trotter-Mathison & Skovholt, 2014) the current study highlights a key message regarding the potential need to better support the people who are supporting the athletes, as when those in supporting roles become burned out this can result in decreased empathy towards clients' needs and therefore likely provision of sub-optimal or somewhat ineffective service delivery (Cropley et al., 2016).

#### **5.4.1 Strengths, Limitations and Future Research**

The present study has a number of limitations. Conducting research with practitioners involved in some of the highest levels of elite sport presents some expected constraints. The main challenge faced in approaching such a cohort related to the initial recruitment difficulty and soliciting agreement of participation from individuals with particularly demanding schedules and most likely more taxing priorities. Recruitment for this sample occurred over a considerable time-span in an attempt to maximise the cohort and still sample size numbers

were fairly limited. Linking to these complications and the lack of time available within a large number of the practitioners' schedules, they were not approached for a second interview (as in study two with athletes). This meant that data was not party to member reflections or elaboration by participants and may have missed the opportunity for further discussion to obtain additional depth within answers.

It is acknowledged that the findings advance understanding by presenting the fundamental narrative types that characterise the group of 14 practitioners interviewed. It is likely that these narratives will have been influenced by the individual experiences of each professional, their exposure to different athletic experiences of their clients, and the sports in which their roles have been in. Additionally, the background of each practitioner and their experiences, as athletes themselves in some cases, may have resulted in contributions to the way they perceive this relationship. No claim is made to suggest that these are the only possible narratives sports practitioners adopt as further alternative narratives may exist and should be explored. Future research could seek to explore in such ways as those presented here other groups of practitioners in different social contexts, with experience in different sports, to uncover whether other narratives exist and what these may be. Future research could also address perceptions of the relationship according to other types of practitioners, or even coaches who have inevitable influence on athlete well-being, to extend our understanding further. In addition, studying practitioners from a single country means results from this study may not transfer to other groups of practitioners in other nations. Culturally, other countries have diverse models of service provision, and competencies, certification requirements and professional boundaries differ among professionals considered to operate in similar roles (Moesch et al., 2018).

An additional limitation relates to the presentation of the practitioner narratives as one, without the identification or split into the different roles. The decision to present the narrative as a general representation of these practitioners was made because similar points were being identified across the roles. To separate out each story for each practitioner would have resulted in significant repetition.

It is also recognised that the previous study conducted with athletes will likely have influenced the author's thinking and interpretation whilst collecting and analysing the data obtained from practitioners. Reflections will have been influenced to some degree by the fact similar ideas were explored in the thesis with athletes, however specific details regarding transfer between the different study samples is unclear. Having knowledge of athletes' narratives prior to exploring those of practitioners may have helped to build a baseline of



knowledge about the relationship, with which to pursue further depth of comparable ideas with the practitioners, where athletes may not have been so detailed. Procedures such as regular discussions with supervisors about the emerging results were in place to assist with reflections regarding this cross-over, and to identify where clarity was needed to ensure the narratives of the practitioner cohort reflected their perspectives clearly.

The current study has raised awareness that para-athletes may possess superior resilience to able-bodied athletes in dealing with their well-being issues because of the exposure to traumatic experiences and ability to deal with challenge resulting from their background. The suggestion that their resilience may mean their well-being issues may have less effect on their performance because they are accustomed to overcoming hardships is an area that could be explored in more detail. More research is required to fully understand the stories of para-athletes regarding the relationship as there may be some differences.

### **5.5 Conclusion**

In conclusion, this part of the current thesis adds to previous literature by providing Sport Psychology and Performance Lifestyle practitioner narratives about the relationship between well-being and sport performance. Practitioners described this relationship in line with one fundamental narrative of *coping*. An athletes' ability to cope and be resilient to the challenges presenting within their well-being was essentially the key to performance, even when well-being was low, according to practitioners. Though well-being was considered desirable and often beneficial for performance, it was again not seen as essential, but rather the responses to circumstances, and the skills of the individual to generate positive responses, were what made the difference to performance. The thesis so far continues to promote the sense that the well-being – performance relationship remains to be clearly understood because of the multitude of factors that may influence the utility of the relationship to a particular individual. Rather than solely pursuing a perfect life and perfect situation, practitioners placed emphasis on their role of being able to prepare athletes to cope with whatever presented within their circumstances, as these were very rarely seamless. Although the current study highlights a variety of ways in which athletes cope with their well-being in order to perform, it is recognised that these are not the only strategies that may be used, and these may also not be the most effective ones. The current study highlighted implications for environment and culture development and also practitioner suggestions both professionally for athletes' performances and personally for their own performance in their job role. The next chapter will take into consideration more of an individual reflection of the well-being – performance relationship and explore some of the ideas raised within the thesis so far, longitudinally.

### 5.6 Thesis Study Map: Study Three

Study	Objectives & Key Findings
Study One: A systematic review of the relationship between well-being and sport performance in competitive athletes	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Systematically analyse the previously conducted quantitative research regarding the relationship between well-being and sport performance to reveal the current state of the literature in this area</li> <li>• To obtain a quantifiable indication of the relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Overall dearth of quantitative studies, limited to only 7 (of moderate quality) matching inclusion criteria</li> <li>• Mixed support for a relationship with inconclusive and varied evidence</li> <li>• Range of correlations reported: significant/non- significant, weak/moderate/strong, positive/negative, no correlation, making a consensus statement regarding the relationship between well-being and sport performance difficult</li> </ul>
Study Two: Elite athletes' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Examine elite athletes' narratives and stories of the relationship between well-being and sport performance constructed through their perceptions and personal experiences.</li> <li>• Identify key factors considered to have a contributing role within the well-being – performance relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Athletes perceive the well-being and sport performance relationship is complex illustrated by the emergence of multiple different types of interactions</li> <li>• Life balance and the management of demands within life domains play key roles in the relationship because they are considered fundamental for well-being</li> <li>• Personal roles acted as resources to sustain and restore balance and well-being, which indirectly provided athletic benefits</li> <li>• Support network plays key role in the facilitation of balance and particular members have particular roles in facilitating the relationship</li> <li>• Coping strategies to create an appropriate mind-set appeared more important for performance than actual well-being state</li> <li>• Individuality accounted for personal differences and was significant within relationship</li> </ul>
<b>Study Three: Practitioners' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</b>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• <b>Examine sport practitioners' narratives and stories of the relationship between well-being and sport performance constructed through their perceptions and personal experiences with their athlete clients</b></li> </ul>

	<ul style="list-style-type: none"> <li>• Identify key factors considered to have a contributing role within the well-being – performance relationship</li> </ul> <p><b>Key Findings</b></p> <ul style="list-style-type: none"> <li>• Practitioners perceive the well-being and sport performance relationship is complicated, intricate, and non-direct, as well-being can influence the probability of, but does not determine, performance</li> <li>• An athletes’ capacity to cope with and manage the competing demands and challenges presenting within their personal situation appeared more relevant and critical to performance than current well-being state, according to practitioners</li> <li>• Adoption of roles within different life domains was highlighted as central to coping</li> <li>• Sport environment and culture was considered significant within the relationship because of the influence upon the way well-being was approached and treated</li> <li>• Practitioners assumed responsibility for their own roles in facilitating athletes to cope with their well-being and their navigation of the relationship</li> <li>• Individuality was suggested to account for variation within the relationship, specifically individual resilience, self-awareness, and appraisal</li> </ul>
<p>Study Four: Longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance: a mixed methods investigation</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>•</li> </ul>

## **Chapter Six**

Study 4: Longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance: a mixed methods investigation

## 6.1 Introduction to Study Four

Study one presented mixed conclusions of the quantitative research on the relationship between well-being and sport performance. Variation in the type of correlations reported revealed that evidence for the quantitative relationship was inconclusive. Study two highlighted the narratives of elite athletes according to their perceptions and experiences of an intricate relationship between well-being and performance, identifying factors they believed may be associated with the interaction, including life balance and mind-set. Study three reinforced some of the perceptions held by athletes, from the perspectives of sports practitioners and revealed their narrative of the relationship too, one where coping was seen as key to how well-being interacted with performance.

Building on from the first three studies based on the correlational literature or focused on the general narratives of groups of elite athletes or practitioners cross-sectionally, study four will focus on elite athletes' narratives of the relationship *longitudinally*. Well-being can be dynamic and fairly transient in nature (Huta & Ryan, 2010), and this can be in line with changes to its contributing factors over time, according to events and experiences in a person's life. These events may be within general life or that of within the sport domain. As the relationship would likely reflect the current or most recent circumstances athletes are facing, over time it is likely that these will fluctuate. Within-person fluctuations to well-being may be minimal or substantial and athletes are also likely to experience periods of higher and lower demands and stressors according to different seasons within their competitive cycle (e.g. competitive season versus non-competitive season) and also their additional life areas (e.g. university semesters). Athletes also naturally experience fluctuations in their training and performance. Because of the chance for the fluctuations in these areas to occur it would be useful to consider athletes' narratives of the relationship as it transpires. A longitudinal study, examining the potentially dynamic perceptions and experiences of the relationship as they occur will extend the previous studies of the PhD by looking at the relationship in more of a multifaceted, real-time approach. Understanding the narrative of the relationship from athletes' perspectives at multiple time-points using longitudinal methods is likely to add to knowledge because it can offer an alternative approach to understanding the relationship compared to previous studies in the thesis. Implementing a different approach may help to assess the robustness of the findings presenting in the thesis overall, which may also foster confidence in what is being proposed to inform future interventions with athletes and may indicate whether the findings appear to be method-bound.

To date, no previous study has attempted to provide the narratives of athletes regarding the relationship between well-being and training quality or sport performance, longitudinally over *multiple time points*. Studies two and three of the current thesis employed retrospective interview techniques within a cross-sectional design. These methods cannot measure and fully capture the dynamic nature with which perceptions of the relationship may fluctuate because they are measuring individual's perspectives at one particular point in time. Study four will address this by following athletes over time, incorporating multiple interviews that allow them to reflect on events that have happened with some immediacy and recollections that are still clear in their mind.

The thesis so far, in particular studies two and three, have identified that the complexity of the relationship may be in part because of the uniqueness of individuals, their situations, and the resultant utility of the relationship to each person. Study four will present the individual narratives of athletes regarding the well-being – performance relationship as they progress over time, as opposed to the combined narratives earlier in the PhD. It may be beneficial to present the stories as cases experienced by different individuals to highlight the intricacies associated to each individual that can occur. Adding some personal context to the narratives of the relationship may help discover additional factors and specific influences and interactions more clearly than when combining people's experiences.

The purpose of this chapter is to further contribute to the PhD examining perceptions of the relationship between athlete well-being and sport performance. Taken together, the above points highlight the necessity of examining the relationship from elite athletes' perspectives longitudinally and with individual context. The aim of study four was to track elite athletes' experiences of the relationship between well-being and both training and performance quality longitudinally, to enable examination of their narrative that occurred over time. This includes the exploration of existing perceptions that athletes had about the interaction, along with any change within their narrative due to fluctuations in individual experiences of the relationship. The current study progresses from study three as it will present the narrative of the relationship constructed according to events that unfold over multiple time points. The narrative will also be illustrated through singular cases to provide individual context to the relationship. This type of study will add to the existing knowledge available on the relationship and help answer the overall thesis aims. This study will address the objectives (d) and (e) of the thesis.

## **6.2 Method**

### **6.2.1 Design**

This study used a longitudinal research design with the aim of exploring how athletes experience well-being, and how this relates to their training and performance in their sport on a day-to-day basis, along with their perceptions of this relationship throughout the process over time. Researchers (e.g. Caruana, Roman, Hernández, Sánchez & Solli, 2015) have suggested that longitudinal methods offer a more comprehensive research approach, which can facilitate an understanding of a phenomenon with a focus on the changes over time in particular individuals. These methods may minimise limitations associated with cross-sectional, retrospective designs, such as recall, and because of this, they are appropriate for studying the well-being – performance relationship experiences of athletes. Longitudinal study is acknowledged to be demanding for participant and researcher in terms of time implications. There is also potential for attrition of participants, or incomplete collection or input of data with repeated follow-up procedures over time (Caruana et al., 2015). Exploring the interaction of well-being with training and performance quality over time will also allow for the examination of different periods of demands for athletes and can help track fluctuations across the athletes' training and competition seasons accordingly. The longitudinal research adopted a mixed method approach collecting both quantitative and qualitative data for *development* purposes, i.e. the quantitative data acted to inform the subsequent stage of qualitative inquiry (Moran, Mathews & Kirby, 2011). The rationale for selecting a mixed method approach for the current study was justified in terms of the ability of supplementing quantitative data with qualitative information to provide depth in understanding, as well as the potential for each type of material to enhance and account for the limits of the other (Bergman, 2008; Creswell & Plano Clark, 2010). Whilst the approach incorporated mixed methods, emphasis was placed upon the qualitative component to enable the aims and parameters of the study to be best addressed.

### **6.2.2 Participants**

Participants were recruited from across the United Kingdom via a purposeful sampling method outlined in chapter 4 (study two). Athletes ( $n = 7$ : male 6/female 1) between the ages of 20 and 29 years ( $M = 23$ ) initially agreed to participate in the study. Three participants were not included within the final write up of the study due to dropout during the period of data collection or being unresponsive to contact after: initial provision of consent and commencement of data collection ( $n=1$ ), interview one and partial completion of quantitative data collection ( $n=1$ ), and full completion of quantitative data with no response to requests for collection of qualitative data ( $n=1$ ). A total of four athletes were included in the current study, Lucy, Jack, Adam and Josh (pseudonyms). The remaining respondents were elite athletes from

four different sports: water polo, athletics sprinting (100m, 200m, 400m), athletics middle distance running (800m, 1500m), and boxing. Inclusion criteria was equivalent to those implemented for elite athletes in study two of the thesis. Participants trained for an average of 12 hours per week. Participants had competed at either national or international level.

### **6.2.3 Procedures**

Ethical approval from the Research Ethics Committee at Liverpool John Moores University was gained. Potential participants were then approached via email distribution of a recruitment letter and information sheet outlining the title, purpose, eligibility criteria, procedures, risks and benefits of the study (see appendix F). Emails were distributed to participants either directly or through relevant stakeholders at the athletes' institutions on behalf of the primary researcher. Participants were accessed through the resources and personal contacts of the primary researcher and her supervisory team. The researcher contacted the scholarship programme managers from two universities who targeted the performance teams and performance athletes they had contact with, either directly or through coaches and committees, for recruitment. Additionally, these programme managers were asked to approach athletes within their personal contacts. The primary researcher also pursued her personal elite athlete contacts for recruitment. Upon confirmation of participation, respondents completed an informed consent form (see appendix F). Participants also provided demographic data such as age, gender, sport, sport level, age started sport, amount of hours training per week, current teams or squads they were members of, top three competition results, other commitments alongside sport, and their short and long term aims for their sports career, to gather informative insight into the sample.

Following completion of these forms data collection began at different times according to the timing of recruitment of each participant. Data collection lasted between six to eight months with participants, depending on their willingness and desire to continue beyond the requested six months. Quantitative and subjective daily training diary data and fortnightly well-being diary data was collected across the entire length of time committed to the study by each participant. Qualitative interviews were conducted at three time-points across the quantitative data collection period. The first interview occurred prior to the commencement of the first diary entry, with the purpose of gaining a baseline of the participants understanding and perceptions about the relationship between well-being and performance. The second interview occurred following three months of diary entries, with the purpose of discussing the athletes' experiences of the interaction of well-being and training behaviour over this time period. The final interview occurred following the final diary input of the participant, which occurred after slightly



different lengths of time depending on the individual, again to examine the athletes' experiences of this relationship over the second time period. Each subsequent interview following on from the initial one aimed to expand on the views the athletes had about the relationship, and to examine whether their perceptions within their narrative were maintained or developed over time according to their experiences. One of the challenges related to longitudinal data collection studies is participant attrition (Young, Powers & Bell, 2006). To minimise attrition with this study, the researcher emailed participants after each interview to thank them for their time and input and highlighted the value of their participation. Polite reminder emails were also sent on occasions where participants may have missed some diary entries. Such follow-up and reminder strategies have been reported to improve retention rates in longitudinal research (Booker, Harding & Benzeval, 2011). Mutually convenient times and locations were arranged for each of the interviews, with all interviews conducted face-to-face at the university, except for one participant who relocated geographically to another country during the study. This participant completed his initial interview face-to-face and the two follow up interviews via FaceTime<sup>®</sup>/Skype<sup>™</sup>. The option to engage in interviews alternative to a face-to-face set-up was provided in this instance as it has also been identified as a barrier-reduction, retention strategy (Teague et al., 2018). One participant did not fully complete the quantitative inputs or engage in the post three months interview, however they agreed to provide qualitative data and completed the final interview. The data collection procedures identified above took place using the methods outlined below.

#### **6.2.4 Training Diaries**

Training data was collected fundamentally according to the FITT (Frequency, Intensity, Time & Type) principle of exercise. Training frequency was monitored as participants were requested to complete a training diary for each of their training sessions across the length of the study. Intensity of training sessions was recorded through responses regarding an overall difficulty rating of each exercise bout through session Rating of Perceived Exhaustion (RPE) scores (Foster et al., 2001). Participants were asked to select a number represented alongside verbal anchors from the RPE scale, (see appendix G) from 0 associated with no effort (*rest*) to 10 considered to be maximal effort (*maximal*). Participants were instructed to complete the diaries approximately 30 minutes post-session to gather a single global rating of the intensity of the entire training session, ensuring that the perceived effort referred to the whole session rather than the most recently experienced exercise intensity dominating the response. Session RPE has been suggested as a simple but effective method of quantifying training load in a wide variety of athletic populations (Foster et al., 2001) and was considered appropriate for the

current study which included athletes from different sports. All athletes were familiarised with the RPE scale prior to commencement of the study. Participants were also required to provide information regarding the duration of their training sessions in minutes, and the type of session completed (e.g. technical or tactical, physical preparation/strength and conditioning, competition, other). A brief description of what each session involved was also requested. Additional details were gathered regarding participants' perceived training quality on a Likert scale ranging from 1 (*extremely poor*) to 10 (*optimal/excellent*), as an indicator of subjective training performance (Filho et al., 2015). Respondents were also asked to provide some context as to why they had rated their training quality in such a way. Quality of training/performance was included as an additional training measure as study two had identified that athletes predominantly defined performance as the 'quality of a task', therefore it was considered appropriate to include an indicator of this to track training and competition performance subjectively. Subjective reports have been suggested as potentially better representations of athletes' performance experiences in some sports, as purely objective results cannot account for the numerous situational factors, for example, weather, conditions, and exceptional performances by opposition or peers (Chelladurai, 2007; Filho et al., 2015). Training diaries were provided to athletes in the form of an online monitoring tool created and distributed through Google Forms. See appendix G for an outline of the training diary.

### **6.2.5 Well-being Diaries**

Subjective well-being data was collected from participants on a fortnightly basis also in the form of an online monitoring tool created and distributed through Google Forms. Well-being diaries were constructed into two sections. In the first section participants were required to provide responses to the Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007). The WEMWBS is a comprehensive measure of mental well-being, which includes affective-emotional components, cognitive-evaluative dimensions and items relating to psychological functioning (Tennant et al., 2007). This questionnaire is a scale of 14 positively worded items such as "I've been feeling good about myself" and "I've been feeling confident", measured on a five-point Likert scale ranging from 1 (*none of the time*) to 5 (*all of the time*). Participants were asked to choose the answer that best described their experience of each item over the last two weeks. Scores range from a minimum of 14 to a maximum of 70, with higher scores indicating higher levels of mental well-being. This scale has demonstrated good content and construct validity and excellent internal consistency, with Cronbach's alpha  $\alpha = .91$  in a population sample (Stewart-Brown et al., 2009). Criterion validity has been demonstrated

through high correlations with other well-being measures, such as the PANAS-PA ( $r = .71$ ) and the Scale of Psychological Well-being ( $r = .74$ ) (Tennant et al., 2007).

The WEMWBS was selected for application within the current study because of its holistic and integrated approach to the study of well-being, incorporating both hedonic and eudaimonic elements (Tennant et al., 2007). This questionnaire was also chosen because of its common and contemporary application within sport research or with athletes (e.g. Dosumu, 2016; Nicholls, Levy, Carson, Thompson & Perry, 2016; Jowett, Adie, Bartholomew, Yang, Gustafsson & Lopez-Jiménez, 2017). This measure is advantageous because it is short in length therefore quick for participants to provide responses to, which was thought to be a factor that would increase the chances of participant retention, especially as the current study is longitudinal. Another advantage of this questionnaire is the focus on positively worded items.

The second section of the well-being diary required athletes to provide context to their WEMWBS responses by adding a number of qualitative comments about their well-being, to capture their subjective thoughts and feelings. This enabled them to give details about any significant events that may have happened, which may have contributed to their well-being fluctuations, and when these events had occurred during the two-week period. For example, sports event (e.g. competition, trial, squad etc.), non-sport event (e.g. academic deadline, exam, work deadline/review etc.), personal event (e.g. family, relationship etc.), no event, or other event. Participants were also given the opportunity to express whether, and if so how, they felt their well-being had affected their training. These additional qualitative comments were included as part of the well-being diaries, as despite the quantifiable markers available within the aforementioned measure, the predominant authoritative marker of how well an athlete may perform on any given day may be the notion of *how they are feeling*. It was thought that these personal and subjective self-interpretations may allow insight into the factors contributing to the reported well-being state and, in essence, capture in-depth narrative of behaviour, activity, day-to-day existence and subsequent emotions. Although it may have been valuable to obtain these reflections daily due to the potentially transient nature of well-being, this was considered an excessive load for participants, which would have resulted in an undue burden upon them. Fortnightly application was considered appropriate to capture insight into their day-to-day life experiences with the added benefit of hindsight and was a conscious strategy with the aim of reducing participant burden to maximise retention (Teague et al., 2018). See appendix G for an outline of the well-being diary.

### **6.2.6 Interviews and Data Analysis**

Interviews were conducted in the same manner as described in study two (chapter four) regarding consent, audio recording and transcription. Interviews lasted between 34 and 98 minutes ( $M = 69.1$ ) and were transcribed verbatim into 244.5 pages of text. The initial interview followed the structure of that used in study two to gather a baseline of data regarding the relationship. Each follow up interview was constructed using analysis of each individual's quantitative data over that period, to gather qualitative information about the athlete's experiences of their well-being and training behaviour/quality based on their diary inputs.

Data collected via well-being and training diaries were downloaded online from Google Forms and inputted into separate spreadsheets using Microsoft Excel. These data were then plotted to create line graphs and bar charts that represented training variables alongside well-being over the duration of the data collection period, essentially presenting a descriptive time-series analysis. Two types of graphs were created that represented training variables with either individual values that gave more intricate context of interactions, or average values for each two-week block, alongside fortnightly well-being values. The presentation of this data allowed for the attempt of a visual impression of the interactions between these variables and well-being over time as experienced by the athlete, to identify and interpret any trends (e.g. upwards, downwards, plateaus) in the data. The focus of the study was not to measure quantitatively the relationship between well-being and performance, therefore the quantitative data was not designed to calculate a statistical relationship between well-being and subjective training/competition quality. Rather, responses to well-being and training diaries were used primarily as a tool to assist in sensitising the researcher to the data to enable development of interview guides. Diary data was also used to stimulate discussion with the participants, by acting as an interview stimulus for the generation of subsequent qualitative data that could help to understand each person and their experiences in rich detail. The quantitative data also assisted the researcher with their reflections about what the data may be showing. Training quality was the variable identified, and plotted against well-being, to inform the majority of the discussion with the athletes in the interviews because this was considered a representation of how well the athlete felt they had performed in that session or competition, thus providing a *performance* value (see appendix H). Data of other FITT variables collected was useful to appreciate the potential that these other factors may have influenced participant well-being, for example, frequency and intensity of sessions may have load implications for the athlete. These are not presented within the thesis.

Individual prompt sheets were created to guide the discussions with the athletes, whereby the researcher had identified areas of interest to raise from across the data collection

period and explore in a dialogue with the participants. These points were identified according to different interactions that occurred between well-being and training quality, such as those more straightforward higher well-being and higher training quality, lower well-being and lower training quality, and those more complex higher well-being and lower training quality and lower well-being and higher training quality. Qualitative comments provided via the diaries were also considered when posing questions related to discussion points of interest, as they often added context to the situation under examination. Graphs were presented to participants during interviews to provide them with a visual sense of their own experiences across the study and to allow the researcher to pose general questions regarding their well-being and training quality over the data collection period. A sample interview guide is presented in appendix I to illustrate the format of these interviews.

Interviews were analysed using similar narrative methods discussed in chapter four, however an individually constructed short story-like representation of the athlete's experiences is illustrated for each participant. The narrative is presented individually and provides personal illustrative examples with which each participant experienced the relationship over their time within the study. Rather than identifying and presenting categories or themes inherent in the data, the general narrative was discussed and illuminated with examples specific to each athlete. Threads within the narrative are highlighted throughout the short stories and considered within the study discussion.

### **6.3 Results**

To provide a greater understanding of the relationship between well-being and training/competitive performance, outlined below are the stories of four athletes; Lucy, Jack, Adam and Josh. The stories are presented to illustrate the narrative that emerged regarding the relationship according to athletes' individual experiences over time. The stories reveal illustrative examples of events experienced by each athlete throughout the study, with certain circumstances in each case that influenced the individual context with which they experienced the relationship. Based on the interpretations of the quantitative data and the stories constructed, the general narrative was similar across cases. The narrative indicated that the relationship between well-being and performance, as storied by athletes, was not a clear one, as the interaction was visible at times, but not always. Some variation occurred in how the narrative played out for athletes individually. Two different threads emerged regarding the narrative over the time-points within the study period: one of consistency and one of development. Two athletes' narratives were consistent and two developed or fluctuated over

time. Examples of how the narrative materialised for athletes in each thread will now be provided.

### **6.3.1 Lucy's Story**

**6.3.1.1 Background.** Lucy was a 22-year-old, international level water polo athlete. She had been playing water polo for 13 years and had represented England and Great Britain internationally in a number of different competitions, including Commonwealth Games and World Championships. Lucy played for a club team, a regional team and the national team. She was a clearly ambitious and motivated character based on her commitment to multiple endeavours, had a number of National and British titles with her club across her successful sporting career to date, and was now aiming to gain a place on the Great Britain squads selected for both the upcoming World Student University Games and the European Championships. Alongside her sport career, Lucy was a high-achiever in her academics having completed both an undergraduate degree and an MPhil and was currently at university studying in her first year for a PhD in Sports Physiology. She was a volunteer coach and referee for water polo when not playing games herself. Lucy lived with her boyfriend close by to her university and club team training venue, which was away from her hometown and family.

**6.3.1.2 Interview 1: initial well-being – performance relationship story.** During the initial interview, Lucy expressed clear beliefs of the existence of a relationship between well-being and performance. Lucy's original understanding illustrated that the relationship was complicated, because of her own experiences of both positive and negative interactions between the two entities. The recollections Lucy had drawn upon were indicative of all potential dynamics that could occur between well-being and performance. Essentially, in the past her well-being had been in both positive and negative states and these circumstances had led to both successful and unsuccessful performances at different instants. She felt that her well-being had influenced her performance quite obviously on certain occasions, but in other instances the connection was not as evident, and other factors contributed to the outcomes that occurred in her performance. Lucy recalled encountering an event that altered the current lifestyle she was leading at the time, which had significant implications for her future sporting career. Among other examples given that are not presented here, Lucy's interpretations of her navigation through this particular event highlight her understanding of the relationship of her own well-being and performance at the time point of the initial interview.

Lucy's first interview facilitated her reflections on the turmoil her and her teammates went through when they were informed that their sport, that they had spent most of their life working and training so hard for, had been withdrawn from its receipt of funding from the

funding provider. Over time, Lucy had become accustomed to the busy schedule of a full-time athlete, *“we were all in Manchester at the high-performance centre, so we all had like four hours a day of swimming pool and then we had two hours of gym... and then we had that five days a week”*. She was immersed in what had become her usual routine, *“you'd built up this little bubble around you where like you trained every day with the same people and that was your life”*, and to then be told of the funding cuts out of the blue was a complete shock. The funding withdrawal meant a loss of everything, including the high-performance centre, national coaches, squad training camps with her teammates, and international travel and tournaments. The comprehensive support services fundamental to be an elite level performer would stop, causing Lucy to face a battle to support herself through her athletic career for the foreseeable future. Lucy stated how *“it felt like a massive part of your life was just over”* and the way of living she had adapted to, what she had known, and the people she saw every day, some of which were her best friends, *“completely changed”*. Lucy acknowledged the extent that the situation had affected her. Her *“perfectionist”* tendencies meant that she had difficulty coming to terms with the circumstances that were beyond her control and accepting the situation that she could not have prevented herself, nor could she now do anything to change. She felt powerless, a feeling she wasn't familiar with.

*“I think the whole funding cut was like... without any say and it wasn't like anything that any of us did, or wasn't any of like the coach's fault or anything, it was just, it was a completely external thing that we couldn't control... because I haven't done anything to control any of this, I didn't know what to do, and I was just like, I'm not quite sure how to deal with it.”*

Lucy felt a devastating impact on herself, her team and the sport. There was a realisation that there were hard times ahead and this would result in difficult decisions to be made about her own and her teammates future.

*“It was just a complete like toss up in the air because none of us knew where we were going to be the year later. We had all planned to keep training until Rio, until this year, so all of our lives were arranged around that. I had a house ready for in Manchester to live in and then I was going to travel to and from uni and I had like it all planned out and then my brain just didn't, didn't agree with not having a plan, not having a set thing I was supposed to do and then when we stopped it was just like mmm, like a whole section of my life had just never even happened.”*

The effect of the news had shattered Lucy and her team's well-being, which initially had a damaging influence upon their sessions. They felt that their training was now meaningless, and they had lost their sense of purpose. Lucy and her teammates' morale had hit rock-bottom and the devastation of the event had transferred into their sport.

*“Definitely... at first it was very negative... especially in the first week when we all found out... our coach was like why are you all moping around? We've still got, you*

*know, a competition to train for and stuff... we were just like well why? What's the point?... Why should we?... We are not gonna do it... for like about a week... he was trying to, as hard as he could, to get us like positive and to get us to be like we've still got this to train for and none of us could."*

This situation for Lucy demonstrates a memory where she perceived the relationship between well-being and training quality to be clear-cut and straightforward, unfortunately with negative consequences for her sessions. Despite what was going on in the background, Lucy and her team had a competition coming up, the senior Europeans. This would be Lucy's first ever senior tournament and potentially the last time her and her current teammates would represent Great Britain together. The circumstances were far from ideal and their build up and preparation had been tarnished from the bad news, however Lucy and her team were not going to let recent events ruin all their hard work, "after we had all thought about like we do still need to train hard, we do still need to like do our best and then after that we'll kind of solve it". Lucy was able to put her issues aside with a view to resolving them afterwards and her and her teammates made a decision to attempt to make the best out of what they had left, as essentially they had nothing to lose. Once they had decided to turn their dejection into determination and they had transformed the approach they had to their situation, Lucy was successful in her performance despite the circumstances.

*"When the whole team came back together... it was kind of like the opposite effect. It was like, right it's the last one, we are going to do it the best that we can. So, it kind of had a positive effect on that because we all trained extremely hard to try and get the best, because we all knew it was our last one... our last ever like thing together and we played a game, I think it was against Greece, and it was the first game of the tournament and everyone was like right this is our last ever thing... I'd never been away with the seniors or anything... all the girls were going Lucy it's your first ever tournament you know, go out and smash it... and I got in and played two quarters and like he kept me in the whole time... I played really well even though our funding had been cut."*

This situation for Lucy highlights an experience where her negative well-being did not reflect into her performance, indicating that there may not always be an obvious interaction. Instead her attitude change prevented her performance from suffering the effects she felt in her well-being caused by the funding cuts. She had ignored the situation temporarily, turned her negativity around with the idea of attempting to enjoy their final outing, and actually became emotionally motivated by it. The fact that this was her senior debut, and such a big event and honour, appeared to be an added motivation for Lucy.

**6.3.1.3 Diary data interpretations.** Across the period of the study, Lucy reported high well-being values in general. Well-being was consistently high with a small amount of fluctuation, with only one value dropping below 60 (maximum possible value was 70), indicating a fairly stable well-being trend across time. Lucy also reported generally high



fortnightly average values for training quality. Average training quality values were mostly stable with one fluctuation lower, and one fluctuation higher than her reported norms. More than half of her training blocks indicated a mixed interaction (one increased while the other decreased) of well-being and average training quality. The remaining blocks fluctuated together in the same direction, suggesting a more straightforward association. With a split between training blocks of both mixed and corresponding interactions, this highlighted that Lucy's experience of the relationship over the study may have been complicated.

**6.3.1.4 Interview 2 and 3.** Across the next two interviews at time-points two and three, Lucy's perceptions of the relationship were equivalent to those in interview one, and the story that she told was consistent. Although different circumstances were used to illustrate her narrative of the relationship that remained complicated due to the varied interactions, her fundamental beliefs about the relationship were unchanged. Lucy considered how her well-being influenced the quality of her training sessions, as well as her competitive performances at both of these subsequent time points. As in interview one, fluctuations in her sport had been shown to correspond with her well-being on some occasions but had also varied in different directions on others.

**6.3.1.4.1 The well-being – performance relationship story after 3 months.** During interview two, Lucy highlighted multiple occasions over the first three-months that demonstrated how the quality of some of her training sessions had been affected because her well-being state had essentially influenced her responses to some uncontrollable factors that arose within the sessions. Lucy's training sessions had been both affected and unaffected by the low session attendance of other players, depending on the current status of her own well-being going into the session. Lucy was having an easy week at university during the washout period of data collection for a study in her own PhD, which meant minimal time in the lab was required and her main tasks involved reading and writing at her own pace in the comfort of the office. She had also spent some time with her family at home, who she doesn't get to see very often. Lucy was convinced that her higher well-being resulting from her week filled with pleasant experiences and minimal stress "*helped with that particular training session*" where only six players turned up and facilitated a positive response to the situation.

*"I was really happy in that last two weeks and then I felt that I could then contribute a lot more to the training session, rather than be a bit like you know I can't be arsed kind of attitude to it... I made the most out of the training session... even though six people only turned up...there was good motivated people there... so it was the six people that really want to be there... I went into it with the mindset of there are six people here we could do like a really good quality session... I like, you know, took over the session, made sure it was still a good session. So, I think I kind of took control of that one to*

*make sure that I didn't have you know my time wasted and I didn't give a low training quality score... I felt tired coming out of it, I felt like I had achieved something from going... I thought it was a really successful session... the quality of the session overall was really good."*

Lucy explained how if she had got to this training session following a "bad week" that had been "really busy" then her reaction would have been different and she would likely have almost written off the session out of anger. When similar circumstances occurred, and Lucy wasn't feeling her best, the outcome was very different, as she had predicted. Lucy was enduring a demanding week of early mornings, long, busy days at university collecting and analysing data for her research, and late nights after both training and coaching. She was starting to feel very tired, *"the early mornings really like, not get to me, but I think it makes me a lot tireder so I can't feel like as upbeat as I normally would... I'd just feel a bit drained"*. Her feelings of exhaustion, along with her hectic schedule where she had no time to herself, and also the fact that her boyfriend had gone away for ten days, which made her feel lonely in their flat that they shared and lived together in, all contributed to a decline in her well-being. She had gone to her training session, which was leading into an important game at the weekend against a team they had previously only drawn with and needed to beat in order to win the league, to discover only four players had bothered to turn up.

*"I was really annoyed at that session... it just really annoyed me that only four people came to training like from our first-team and I was just like how can only four people come to training when you're going to play another team... so, we had to play with the younger ones as well because there was only four of us. We just had to train with them, that was the only option that you had because otherwise, you know, there's four of you, so you can't train with four people. So, it just made me really cross... I think it just annoyed me the fact that they weren't there and I didn't understand why they weren't there and then we then had to train with the under 15's... they are not as like switched on as the first team and... as you are like doing the drills and stuff, you are expecting a really good pass or you are expecting, you know, someone to work hard with you, but then they don't and it affects your training quality obviously just because they are not doing it, and then it annoyed me even more that the first team members weren't there because I wanted a good training session before the weekend but then didn't get it."*

Lucy's frustration and disappointment at the lack of turnout from her teammates leading up to the important game was exacerbated by her own well-being. Because she was already not feeling her best, Lucy reacted negatively, which resulted in a poor session.

*"That was a really, I can't be bothered to do this kind of training session... I can't be bothered so then my training quality was really low... and that kind of like reflects from my well-being... what was the point of coming? I'm really tired, I'm still here, why have these other people not come?"*

Lucy's experiences show that when her demands were excessive versus when they were reduced and manageable, this influenced her well-being, highlighting that whether an athlete is coping with balancing the load of the dimensions in their life may influence the state which

they enter into their sport setting. These aspects of well-being can be seen here to be interacting with the attendance at training sessions. Reflections from Lucy again identify the significance of the mental approach within the relationship. General well-being appears important for her performance in training because of the potential for it to determine or at least influence her reactions to negative situations within sport. Essentially, well-being is considered to moderate whether undesirable events in the sport milieu affect performance or not.

Within this difficult and tiring period that had taken a toll on Lucy's well-being, some of her training sessions were higher quality, some even the highest quality recorded. Especially during this hectic period, as her time was so limited, Lucy felt that her training sessions had to be worthwhile, so she didn't feel like the time had been wasted or could have been more valuably used elsewhere.

*“Because I knew that I didn't have enough time to do it and that they would have to be good, intense sessions, and that there was no point in going to a session if I wasn't going to try hard and wasn't going to do what I wanted to do. Because I had so much like uni work on and stuff as well... there would be no point in wasting an hour in the gym if it wasn't going to be a good session. So, I think my mindset was a bit like if you are going to go and you're going to do it then you need to do it well, because otherwise you might as well not do it and then other things can like take priority over it.”*

Lucy appeared to be able to have good sessions despite struggling to deal with the extent of her life demands and feeling lower than usual because of the approach she took to ensuring these were a good use of her time. Where the sessions were self-directed and self-paced, such as those in the gym building strength and conditioning, this attitude was beneficial to get quality practices, however she found it more difficult for this strategy to be effective in her team-based technical sessions that were reliant on others and the environment they created. Lucy also perceived that the variation in the nature of her sessions was something that helped her to maintain quality in her training, *“It's not just polo sessions... it's like cycling and running as well, which mixes it up a lot. So, I think then the training quality is really good still”*. The diversity in her sessions also helped her to train well, even when not necessarily feeling on top form. Her training sessions also acted as a diversion from the fact her boyfriend wasn't there, *“I needed something to do when he wasn't there”*, so she essentially used her training to distract herself from feeling alone whilst her partner was away. This situation for Lucy highlights how training quality can be maintained when athletes are struggling in their well-being if they approach their session with the mind-set of applying a sense of self-pressure to achieve something useful, or they use their training as a distraction from how they are feeling. Here, the mind-set appears responsible for mediating what occurs between well-being and

performance and whether they interact at all. If the mental approach or mental strategies applied are facilitative, then well-being does not appear responsible for performance.

6.3.1.4.2 *The well-being – performance relationship story after 8 months.* The final interview with Lucy detailed her build up to, and participation in, a major sporting event and how her well-being interacted with her training and performance quality over this time. As part of the preparations for the upcoming major championships, Lucy travelled to Pilsen in the Czech Republic for an intensive practice tournament at the EU Nations, which allowed the team an opportunity to bond and connect as players.

*“We were only there for three days, so we had three games on the first day, three games on the second day and two games on the third day... we had never played together as a team before... it was like a practice one because the Taipei one, you could only be a student for because it was university games, so normally when we played in the past, it will be obviously anybody of each group, whereas that one they had to be at University.”*

Her well-being was good leading into this trip and she suggested that her roommate for the tournament also had a positive impact on her well-being because of the atmosphere they created and the vibe they shared, and also their approach to resting and recovering properly during their down-time between sessions, *“I shared a room with my sister and my friend from Liverpool... who I shared a room with really helped... I think it definitely affects how you play and like your well-being”*. Lucy felt that her performance over the EU Nations tournament had been good, particularly in the first match.

*“It was the first like international game that we played, so it was really good to kind of get that out the system... it was good that we got kind of the weaker team out of the way first so, you know, we got our confidence up a lot. So, that was a good training quality I think because we got to work together really well as a team right before that really important game of Czech Republic... and I had scored three goals.”*

The rest of the tournament went well for Lucy and her team. Although they did not win every game, she felt she had maintained high quality performances throughout and this was *“based on the competition that we were playing against, they were really, really good teams, so it meant that you had to play really, really well”*. Lucy and her team won the tournament and returned home *“really positive”* and her *“well-being was quite high because... we’ve just won... I’m about to go away again. I had missed playing polo at an international level, so I was a little bit excited as well”*. It was also Lucy’s first time captaining a senior international tournament and on reflection she felt proud of the job she had done. The following week, Lucy experienced difficulties in maintaining her positivity as she had a short time to plan and prepare everything for her research to continue at university whilst she had almost a two-month break

from her studies to attend an intense preparation training camp and the World University Games (WUG) competition.

*“When I got back I was then in absolute panic mode because I thought I had a lot more time than I did before going away and tried to get everything kind of in a state where I could leave it, and nobody would be confused, and no one would be thinking that they had to do anything extra. So, that week I think was a bit stressful... I had to sort stuff like organise cover for the training sessions, organise cover for the testing, make sure like all sheets were in place for everybody to know where everything was... it was just trying to get it all done before I went away..... get everything organised... for when I started full-time training again...and because I was busy I think those, like the training qualities were all lower than normal as well because they weren't as good sessions because I was probably busy and thinking about other things and not, you know, doing it as well as probably I should be.”*

The trip to Pilsen and the subsequent stressful preparation period were both examples of Lucy experiencing a simpler connection between well-being and performance. After this week, Lucy began attending the training preparation camp prior to her departure for the WUGs in Taipei. This was a tough two weeks for Lucy as she had to realign herself with the demands of a full-time training schedule, which she was now out of practice with since her sport lost funding and her training commitments significantly reduced.

*“Big increase in training load... It was all about being in full-time training again and trying to remember almost how that works and how to do it and how I used to cope with it, because I used to do two training sessions a day. So, I think that was probably the biggest dip kind of in my well-being... the first week of that was quite difficult, but then I got used to it I think... so, it was alright when I got back into it, it was okay, but trying to get back into that and trying to remember how to do two training sessions a day and how to look after yourself in a way that you can get up every morning and do it again, I had to relearn how to do that really... it was a lot of training... we basically had either twice a day, or three times a day training sessions for those two weeks before we went away. So, the second hard week of that was really difficult in terms of training... it has been very tiring”*

Lucy was also faced with other challenges adding pressure to her demanding training regime, such as *“travelling backwards and forwards from Manchester to Liverpool”* for the sessions. She found difficulty in all the driving on top of the training and this made her feel *“tired”* and *“lethargic”*. The travelling and long training hours also affected her nutrition and eating patterns, *“I don't think I ate very well... and we had really odd training times like morning, and then we had one at lunch time... one at teatime...it was really hard to fit in lunch and tea around those times”*. Lucy's boyfriend was also away in Australia for some of this training camp, which meant after her long, strenuous days and long drives home she *“didn't have someone to go home to”*. She felt that her well-being was somewhat affected by the things mentioned, particularly physically, and that *“it did at first”* influence her training. She also indicated that *“training has been going well though... I have been happy to be back into full*

*time training again, and I am hopefully making the most of the opportunity*". Once the training camp was completed Lucy and her team travelled to Taipei to start their WUG campaign. Lucy perceived that the long-haul travel, along with having to adapt to her new surroundings was detrimental to her well-being and this filtered into the initial sessions upon arrival.

*"We travelled to university games which was difficult... 24 hour flight, it was like a 17 hour flight with a layover and then another six hour flight or something like that so it was you know a long way away... such a big time difference as well like there was an eight hour difference... and I knew as well that I wasn't going to see [boyfriend] for basically a month because he was in Australia and I was in Taipei... It was unusual to be like in a new situation... new environment, completely different thing, probably like quite big expectations because it's a really big tournament... everybody was getting a bit giddy, a bit excited... the training qualities of those first sessions were like really low because we had travelled a long way, you know, barely got any sleep... major jetlag... we played practice games in those ones, people were tired you know there was a lot of crying, people were like she's shouting at me, someone else's shouting at me, you're shouting at me... there was a lot of that you know snappy bitchiness."*

Lucy highlighted how despite not feeling her best, she performed well when the team played their first game of the tournament. She put this high-quality performance down to the emotions and nervous energy relating to the buzz of starting the competition, *"we were all really, really excited to be there and excited to play and everyone was geared up to go... I think it's because it was the first one and still even though people were being a bit snappy... it was still really exciting to play in"*. As the tournament went on, Lucy and her team faced some tough competition and lost the next couple of games by significant goal differences, which left her feeling down, *"I think that affected my mood a lot... it was just a bit disheartening... after you've done that like two full weeks of training... and you lost two games as well, it's hard to process... feels as though all the training I have done has gone to waste a little bit"*. She had come to the realisation that her team were not likely to place high in the rankings against the *"really difficult teams"* as *"we are not that good at polo as a nation"*. Although it was *"evident"* to her that they *"weren't going to do very well in terms of our score line against other people"* she was ready to *"keep going"* and try as hard as she could for the rest of the games. Lucy had been struggling with her role as captain in the preparation build up and across the tournament.

*"I have definitely been affected by the competition over the past few weeks.... I'm finding it a little tough being captain as I have to make sure everyone else is happy and getting along, and not just worry about myself.... I have had a couple of issues with the girls arguing while we have been at WUG... but then because you are doing everything with the team it carries over. I have felt myself becoming slightly isolated as I have tried to keep out of the negativity from some members of the team... I have had to think about the well-being of the team as well as my own... so, I think that I am more concerned with trying to make sure that everyone gets along than playing polo... I felt*

*under a lot of pressure... trying to make everybody happy and trying to make everybody's well-being better, because there were certain people on the team that were going round and saying like, oh this is bad, this is bad, you know kind of not making the team a very good team I don't think, we weren't working well together."*

The team were then up against Japan, a team who played "really strange water polo", problems within the team were still rife, and her team lost another game. Something would need to change if Lucy and her team were going to turn their competition around.

*"After that game we had four people crying. One was crying because we had lost by so much again and we continued to lose, and she was used to playing in America, so she wasn't used to it. One of them cried because she only got in for like 42 seconds. Another one had cried because our coach had shouted at her. And another one had cried and wouldn't get off the bench and wouldn't shake hands with someone else after the game. So, after that we had like a big talk as a team and basically our coaches just had a go at us and were like, this is ridiculous, you are supposed to be a senior team. Four of you can't be crying at once, what is the point of this? I'm not a mean coach, I won't shout at you, I will play who I think is best to play at that time. It's not your job to say when you should be getting in and when you should be getting out and what the tactics are and stuff like that. We then had one-to-one meetings with him as well back at the hotel and from then on like the team working together got so much better... I think it definitely affected my well-being... so, from that point on I think we worked together and a lot better as a team... It was kind of like this has happened, you've done this for the previous two games, it's not on, draw a line under it, let's get better and luckily everyone did."*

Despite the issues that had occurred over the championships, Lucy expressed that she felt she had played well throughout the tournament. At times, *"the girls that I was playing with I thought affected my performance because I was too busy thinking about what they felt and thinking about how my coaches' words would be interpreted in their eyes, rather than me playing"*. The quality of her performances were all fairly high as she felt she *"played really well and... tried really hard"*. She recognised that the quality of the team performance was not necessarily great but, considering the standard of opposition was so high, she was happy with her own performances and loved being back out in the international field being challenged by such high-level athletes and high-intensity games. Lucy described the World University Games as an *"amazing experience"* and her and her team *"ended up going through to the top half [of the rankings] because of our goal difference... so, we achieved what I think we set out to achieve, even though we didn't do it the easiest way"*. Across this period of the build-up for and participation in the competition, Lucy had multiple instances where the state of her well-being corresponded with the resultant training or performance. At times when she felt down because of elements such as increased demands, jetlag, losing games and struggling with her captaincy role, her training suffered and some of her performances were not her best. However, this straight relationship was not solely representative of her experiences. Lucy had struggled

to maintain her well-being over the tournament because of various issues, but felt overall, she had played well regardless. Her use of emotions generated from the excitement of the situation, and her ability to remain positive enough to push herself in the pool, allowed her to perform irrespective of feeling down. Events from this interview provide further evidence that Lucy's narrative portrayed perceptions of a complex relationship based on these illustrative examples.

**6.3.1.5 Summary.** Lucy's description of how the relationship occurred for her was similar in interviews at all three time-points, revealing how her overall narrative of the relationship occurred in a consistent manner over time. The stories in each interview reveal consistency in her experiences of both straightforward and complicated interactions between the two factors: for example, Lucy repeatedly experienced periods of time where well-being and training quality were in similar states and varied together, but also times where well-being and training quality differed and varied in opposite directions, respectively. What this has illustrated for Lucy is that the narrative she was telling at the start continued to be the same narrative she told throughout the eight months regardless of all the events she faced and experiences she had. Another athlete, Jack told a narrative comparable to Lucy's, which will now be presented with his own illustrative examples and experiences.

## **6.3.2 Jack's Story**

**6.3.2.1 Background.** Jack was a 21-year-old international boxer, competing in the 64kg light welterweight category. He had been competing in his sport for 11 years, had won gold for Great Britain in the multi-nations tournament, and had gained a number of national and British champion titles over his career. He was aiming towards winning the British University Championships (BUCs) and the upcoming ABA (Amateur Boxing Association) national championships and aspires to turn professional in the future. Jack had grown up around boxing as both his dad and uncle were previously boxers themselves, and he had been trained by his dad, who owns his own boxing gym, for most of his career. Although boxing was his life, Jack was also keen to excel academically and was studying for an undergraduate degree, however he acknowledged that he would often prioritise boxing over his studies. Jack was in receipt of a sport scholarship from his university, which provided him with support and services that he would otherwise not have been able to consistently fund himself.

**6.3.2.2 Interview 1: initial well-being – performance relationship story.** During initial discussions, Jack held perceptions that a relationship existed between well-being and sport performance.

*“I think if you're not enjoying it and there's not a lot of positive feeling... towards what you're doing, and you're not living well, then I don't think you're going to go to the top*



*level... if I'm going the gym, if I'm not feeling up to it then I won't be as good, but if I'm feeling fresh and relaxed then I do perform better."*

Having good well-being was considered preferential for performing by Jack, *"that's what you want isn't it, you want everything to be going right, then you will feel better and you will perform better"*. Jack's initial understanding demonstrated he had instances in his career where his well-being had been good and also times when it had been poor, which had often reflected into his sport, in positive and negative ways respectively. Although Jack made explicit comments about well-being and performance connecting in a straightforward way and identified instances to illustrate this, his original narrative also presented a complicated relationship, akin to the story told by Lucy. Experiences recalled by Jack in his first interview will now be considered to illustrate both sides of his narrative of the relationship at study commencement.

During the first interview Jack discussed how he had previously transferred from being coached by his dad to train at a different facility with different coaches as *"it's a good gym, got a good reputation and things were working well"*. After some time of training at his new gym, Jack was experiencing problems within his sport environment, which were damaging to his well-being and his training. Issues emerged within his relationships with people at the club, including with the coaches.

*"When I was going the gym... the coaches were just giving me bad vibes... I weren't getting along with them, so then I wasn't enjoying it... I didn't feel in control of what was going on, I'd go the gym and they'd say you're doing this, and I was having no control over what was going on."*

Treatment from other boxers within the club was also unpleasant and Jack was dealing with hostility from his *apparent* teammates.

*"In the gym I was at, there was a lot of jealousy and stuff from when I was doing well... so like when I'd go to the gym... I could tell people were not happy for me and then that would be like another thing where I didn't want to go the gym, because I would just think how I didn't want to see these people and stuff... they just weren't my mates... they'd say like, oh good luck and stuff, I'll come and watch you tonight, and it was like down the road, and then like no one from the gym would come."*

Jack was feeling like an outsider in his own gym and his whole attitude towards the sport had become destructive as a result, *"I just didn't feel like it was going well and then I had a negative feeling towards the sport... I didn't want to do it... I didn't want to train it was just negative, everything was negative"*. During this time, Jack had a fight in the semi-final of the national championships where he *"got beat... didn't perform well"*. He associated this loss with the fact that his sport was no longer pleasurable, *"I was just tense in these fights because it was just on my mind, I weren't relaxed, like I think your well-being, you should be happy and... you should*

*enjoy your sport*". The influence of these events upon Jack caused a loss of enthusiasm for the sport, which was detrimental to his preparation.

*"When you get up at six in the morning, if you're not enjoying what you're doing then you're not going to get out of bed, your gonna stay in bed, so obviously my preparation was nowhere near as good as it should have been because of my mental state to be honest, and the things that were going on."*

He was also feeling restricted in terms of his control and autonomy in the coach-athlete relationship, which affected his ability to make decisions during fights.

*"When I was in the fight, the lad I was fighting, he was employing some tactics where I thought I should be waiting for him, but instead I was getting told to go forward, and because I didn't feel under control, and the relationship I had with my coach, it wasn't where it should be, I didn't know what to do, I didn't know whether to do what I thought was right because I've been training for 10 years now and I know what's going on, I'm not stupid, and he was telling me to do something else. So, in my head I didn't know whether to listen to him because I'm seeing things wrong or whether I should do what I feel is right because obviously it's down to me at the end of the day and I just performed poorly to be honest."*

This situation for Jack is an illustration of where he felt a clear connection between his well-being issues and how this then caused his training and performance to suffer. It also highlights the difficulties athletes may face if their well-being specifically within their sport is low and the resultant effect this may have on their ability to train well and perform at their best. Jack identified multiple kinds of well-being, *"I think there was like two types of well-being with me, so there is like well-being, like being happy, like your well-being outside of the sport, and then your well-being inside the sport"*. The different types appeared to hold differing levels of responsibility for supporting performance.

*"If your well-being in the gym is good then you perform better... it doesn't matter so much about your well-being outside, but if you enjoy the gym then that's where you can like perform to the best of your ability... what I mean by that is, like when you go to the gym or where you're going to train, if you are in a good environment, that is sort of its own well-being in itself, and I think if that's good, that can sort of override your well-being, sort of like an escape."*

Jack ended up leaving this gym and returned once again to train under the guidance of his dad where he could be more open and honest about what he wanted and felt he needed, and *"there are sort of less egos and that's why I do enjoy it... I feel miles better about it"*.

Jack's well-being did not always influence his performance accordingly. He had also been having a tough time on another occasion and performed well, going on to win his fight.

*"I was having a few like stressing moments... I was arguing with one of my mates... I felt a bit stressed all week, training wasn't going as well, I wasn't feeling as good in the gym... I was feeling slow... I weren't sleeping good and because sleeps very important to me, if I don't have enough sleep then it alters my mood a lot... on the day I couldn't get to sleep because I was too, every time I was thinking about the fight I wasn't calm,*

*so instead I sat with my friends, so I mixed it up, it wasn't just the same set routine and then I ended up performing well and then I ended up like knocking him out.”*

Jack perceived that this was *“because I've worked on my mental state, I managed to change the way I looked at things and go in and perform well”*. He had told his dad in the warm up that he didn't feel good, and he felt slow and lethargic, and his dad actually thought that he was *“looking great”*. Hearing this outside perspective from his dad helped Jack to relax and realise he was ready.

*“I know I'd trained hard and I knew that I am mentally strong, and I had been training my mental state... so it was just in my mind, so what I had to tell myself was just, you know, don't focus on this negativity, just go out there and relax, and I ended up knocking him out.”*

This situation here made Jack question and search around for a way to cope in order to maintain some sense of performance despite things not going well leading into the fight. Because he transformed his judgements and appraisals about himself his performance was not affected by his well-being on this occasion.

**6.3.2.3 Diary data interpretations.** A limited amount of quantitative data was collected from Jack. Across the period of time where he provided diary data, Jack reported generally low well-being values (no scores higher than 47 out of a maximum of 70). Well-being demonstrated some fluctuation, with an initial downwards trend followed by an upwards trend, although not enough data was provided to give a clear indication. Jack also generally reported moderate fortnightly average values for training quality. Average training quality values were fairly consistent without displaying much fluctuation, indicating a stable trend across time. Insufficient quantitative data made it difficult to discern realistic interpretations about the visual trend of the relationship.

**6.3.2.4 Interview 2: The well-being – performance relationship story after 6 months.**

Within the next interview, Jack held views consistent with those in interview one regarding the relationship, and the story he told matched his initial one. His complex narrative was maintained because of the various types of interactions he endured, and his fundamental beliefs remained stable. Situations unique to this time period of the study are presented to clarify the narrative at this time.

Over the time of the study, which was Jack's preparation period for the national championships, he faced some significant challenges, specifically related to his sport of boxing, namely making his target weight category, requiring him to lose a substantial amount of weight.

*“I was making weight at the time... they have certain weight categories so there's 64kg, then the next one's 69... that's 5kg different... it's nearly a stone... and it's not like you can go in at 65 or 66, so it's one or the other... there used to be one in the middle, but*

*they got rid of it, there was a 67, and if there was 67 I think ... it would have been completely different... So, I was making 64 and I hadn't done that in two years."*

The recent reduction in the number of weight classes in boxing resulting in fewer, spread by more kilograms, category options meant that Jack was aiming to compete in a weight class below his natural body weight (Oppliger, Steen & Scott, 2003; Sundgot-Borgen & Garthe, 2011). Jack's struggle to reach his weight had detrimentally affected him in both physical and psychological ways, which he believed had had a negative influence on his well-being and often then the quality of his training suffered.

*"Because... like I was losing weight and trying to train as hard as I could... because I had like this big competition coming up... it was just, I was having a nightmare... I'd go in the gym sometimes, and... I'd be in a bad mood or because I'd just have no energy, and like you can't obviously train if you've got no energy... I'd be feeling dead lethargic... just knackered all the time... and when I am tired I don't think straight... you just don't think as straight, or as clear as you normally do, so things stress you out a bit more and your stress levels are a lot higher when you're training... I couldn't enjoy it... I couldn't eat as much as I wanted, which obviously, you know, if anyone done that it would be bad... If you're going into competition you wanna just be like full on, training hard, feel like you're, you can punch through walls sort of thing, feel like you can go forever, but just every time I'd go to spar I wouldn't feel like I was punching as hard... didn't feel like I was punching with any power or force... and I'd just be stressed... you start doubting yourself, start thinking like what is going on here?... and then like that has a knock-on effect on your well-being and stuff and your mood... It does affect your training quality... I think the quality of sessions could've been better like I was always just, when I was managing the weight, the quality just deteriorated a lot and I had to tailor the training sessions around that to be shorter."*

Energy restriction involved in making weight in other sports has similarly been associated with fatigue, anger and anxiety (Steen & Brownell, 1990). Despite his attempts to rapidly lose weight to gain competitive advantages of a low body weight with maximum strength, power and endurance, and be able to perform in his weight category, Jack's boxing performance in his training sessions was impaired because of his weight-loss, which supports the findings amongst athletes from other combat sports (Sundgot-Borgen & Garthe, 2011). Although other athletes have perceived some changes in mood as performance-enhancing (e.g. Steen & Brownell, 1990), Jack's low mood had a negative impact on his sport. Jack had a pragmatic approach when it came to his sport and his frustration at not being able to resolve this issue simply was evident, *"if you're tired and you've not got a lot of energy... go to bed, and I'd do that... that's an easy solution... or go and eat more, but I couldn't... you go to bed thinking about your breakfast and stuff because you were that hungry all the time"*. Jack had become preoccupied and obsessive over food because of the necessity he felt to deny his hunger, which caused him mental exhaustion and stress, which interfered with his training (Steen & Brownell, 1990; Sundgot-Borgen & Garthe, 2011). Jack's weight loss regime was causing him to be

deficient in energy levels, but he also had more severe physical symptoms as a result, *“I kept getting this injury in my quads and they were just tightening up all the time... I’d go on a little jog up the road and they’d be sore... when you’re really weight drained you’ve not got much fat on you have you”*. Not only was Jack dealing with the sport-related challenges presenting both physically and mentally, but he was also faced with an increase in academic expectations, where he found himself feeling overwhelmed with his educational work load and the level at which he was now expected to produce academically.

*“On top of that as well, uni started getting a bit more intense because my exams were coming up and there was loads of deadlines, and I started struggling to understand them a bit more... it was a big year like my third year... the biggest year in uni so far... the jump from second year to third year, it was just a lot more... second year was like definitions a lot so I could just learn them, but this was like learning loads of hard theories, which I didn’t really understand.”*

Jack appeared to be finding it difficult in an important time for both his sport career and his university, and managing both of these at the same time was tough, *“it’s just hard balancing it all... one thing would affect another... I’d be in the gym thinking about uni, or I’d be in uni thinking oh I need to go the gym and stuff... I think I’ve picked such a hard course and such a hard sport too”*. At times he found himself putting his boxing ahead of his studies as his particular sport meant that if he was unprepared, he may get seriously injured.

*“It takes over your life really, boxing, because... it’s not one of those where you can sort of... like take it easy, because it’s like your health... if you can imagine you were going to have a fight with someone, it’s a scary thing, a scary thought, so it takes over... so... when it comes down to it, if I’ve got a choice between choosing between uni work and training I’m going to choose training every time, because you know... if I fail my coursework or don’t get a good grade in my coursework, I’d rather that than lose a fight.”*

Athletes in certain sports may perceive added pressure to train because, to compete in their specific sport they must be in peak condition, fundamentally for their own safety. Because Jack was having trouble cutting his weight, *“instead of having a day off”* he was trying to compensate by *“training even more”*, which probably exacerbated his energy shortage, running himself into the ground, resulting in *“not very consistent, the quality of my training”*. Increased training is a common method for weight-loss in weight-class athletes (Sundgot-Borgen & Garthe, 2011). Jack wasn’t just dealing with a single issue but there were multiple areas that were putting pressure on him in different ways. The stress of dieting coupled with the intensity and increased difficulty in his university studies, alongside feeling pressure to train more and train harder because he wasn’t where he was supposed to be in his preparation, became overwhelming. The accumulation of stressors in Jack’s life resulted in a minor car accident.

*“It was just like everything seemed to be going wrong and stuff... things coming on top, I think it was because I had like a negative attitude... something goes wrong and you feel like the world is against you... it was just loads of little things, like coming out of the gym and just dropping my phone and that smashing and then... I crashed my car... I was just like drifting, like not concentrating because I was just in like a world of my own because I had so many things to think about... it was just stressful.”*

Disregarding performance, this reveals how feeling stressed and being distracted and under pressure in multiple life areas may actually create a threat to the safety of athletes. This situation for Jack highlights the importance of supporting athletes to manage the stressors they have to deal with within their well-being to reduce the chances of them ending up in dangerous situations that could prevent them from performing or participating in their sport at all.

Jack’s continuous battle with his weight requirements and build-up of pressure and external stresses appeared to cause not just a spell of poor training, but had also affected his performances in fights.

*“You weigh in the same day as you fight, so it’s like you’ve got four hours to eat to put it on... I had two fights in two days and literally, like I weighed in on one day... so I made the weight... I felt atrocious making it... I had a fight, and then I don’t even think I had a proper meal til the next one, just like snacks and water and stuff. On that first one I fought a guy who I’ve beat before... beat him really easy and then I fought him again and... I couldn’t be bothered, like I was in the middle of the fight... I just had no energy... it was just so difficult... I just found it hard to put effort in... I was that weight drained that I just couldn’t find energy anywhere”*

Jack’s experiences illustrate how his well-being issues quite clearly manifested into negative feelings and affected his mental state and motivation to perform, indicating that the *“mind is a massive part in it [the relationship]... because it just controls everything, whether you put the effort in, how confident you feel on the day... it can change your mood by thinking... you’re gonna be a happier person, you are gonna look at things more positively”*. The relationship presented quite plainly over this period of difficult circumstances.

While most of Jack’s performances had been poor over this period, there were also some instances where, despite dealing with issues in his well-being, he had managed to have some really high-quality training sessions, and had even won one of his fights. Jack perceived that these occasions were possible because at the end of the day he loves doing his sport and enjoys the sessions.

*“I love going the gym and I love training, so... if I was feeling down, sometimes it doesn’t really matter, because when I get in the gym I come out feeling ten times better...that’s what your sport is and you don’t do sport for no reason because we love it, so when I am going into fight then, you know, I’m happy... that’s when I can feel no worries, that’s what I love doing, So, it does kind of take the stress away”*.

This instance for Jack highlights how sport can be a place where problems can be forgotten and athletes can go to relieve themselves from their other troubles. This is where a constructive

sport environment may be crucial within the relationship, something Jack didn't have in the first interview, as issues in this setting may prevent athletes from being successful even when their outside life is not great. He also seemed to attribute his win to the response he had because his opponent was a fighter he had an ongoing rivalry with, *"the guy I was fighting... it's like a bit personal, you know what I mean, between me and him and like a bit of a rivalry and stuff. So, there was no way I was losing that"*. This explanation identifies that well-being may not always influence performance, if the athlete is emotionally triggered by something, such as their reputation, that may give them an extra push. To rely on such events however would not be a suitable strategy for athletes when they are feeling low as these may not surface.

Following his particularly tough period, Jack had reached breaking point in his sport, *"I don't even know if I want to do it anymore"*, and he decided to take *"a big break, just didn't think about boxing for a while"* because he was *"just so sick of everything"*. His time away from the sport allowed him to restore his passion and realise that he was not done with it just yet, *"I feel like motivated again, I feel... refreshed"*. However his difficult time forced him to reconsider how he would take his boxing career forward, and to think hard about his next steps.

*"One thing I'm thinking now is, I just don't want to ever make weight for amateur boxing ever again, because I'd rather just enjoy it and like maybe fight a bigger guy and enjoy it. Because I've done it before...I didn't get down to the competition weight, I just kind of stayed at what I was walking round at, but when I'd go to the gym, I'd be doing like three hours intense sessions and they'd just be easy to me... I got to a point, I was just so fit... I felt so confident... in my own fitness... and I felt like miles better and that's what I'd rather do than be restricted"*.

**6.3.2.5 Summary.** Because Jack's portrayal of how the relationship occurred for him was similar in both interviews, this shows how his narrative of the relationship transpired in a stable way over time. The stories in each interview reveal consistency in his experiences of both straightforward and complicated interactions between the two elements, for example Jack continually experienced periods of time where well-being and training quality or performance were similar and varied together, but also times where they contrasted and fluctuated in opposite directions, respectively. What this has illustrated for Jack is that the narrative he was telling to begin with continued to be the same narrative told throughout the six months, regardless of all the events he underwent. The next two athletes, Adam and Josh told a narrative with some slight differences to those of Lucy and Jack. These will now be presented with their individual illustrative examples and personal experiences.

### 6.3.3 Adam's Story

**6.3.3.1 Background.** Adam was a 22-year-old international sprinter from Gibraltar. He had been training in athletics for six years, starting his sporting journey in football aged seven

and making the transition to sprinting aged 16. Adam had represented Gibraltar on a number of occasions at both junior and senior level, in competitions such as the Commonwealth Games, European Championships, World Championships, and the Island Games. Adam moved away from his family and existing support network to the UK to study and was completing an undergraduate degree in IT and Multimedia Computing. He continued in his sport alongside his degree and was working towards achieving titles in the upcoming Island Games. He had aspirations to gain a place on the Gibraltar squads selected for the next World Championships and Commonwealth Games teams. He also aspired to hold a clean sweep of Gibraltar national records in the 100m, 200m and 400m distances, and was keen to be an example and inspiration to the younger generation of athletes. Adam regarded his academics as important and was motivated to excel in his studies alongside his sport.

**6.3.3.2 Interview 1: initial well-being – performance relationship story.** During the initial interview, Adam held strong convictions that a relationship existed between well-being and performance.

*“I think there is a relationship between well-being and sports performance... I mean it's simple to understand, like obviously there is a correlation between it... since I've gone through it like a few times, then I can tell you with like such confidence that, you know, it definitely does have a relationship... it does help if you're feeling good in your personal life, like if you're feeling happy and that, it transfers towards your performance like you're feeling more up for it. Whereas, obviously if you're feeling down, you are like I just don't really want to be doing this or whatever.”*

Despite beliefs of a clear link, Adam's initial reflections highlighted that experiences regarding the interaction of his own well-being and performance had presented in a predominantly unconventional way, “when I feel like I've felt worse in terms of my performance... in terms of my season, it wasn't really a great season... at the time, my well-being was good really, like I didn't really have any issues... actually my well-being was great when I wasn't performing well”. He felt that his experiences were inconsistent with his assumptions about what the relationship looked like.

*“It contradicts like what you'd expect though, because you'd expect obviously someone having high well-being for them to perform really well... whenever I like, you know, have a really high well-being, it's not really reflected as much in the sport as I'd want it to... but it's just the injuries that I've had to deal with... it's not like a personal issue it's just something that happened in sport... and someone having, I mean not that I've had a low well-being, but, you know, I've not had it as high at times and I've performed better ironically, it's weird. But it just goes to show that there obviously is a relationship in some way or another.”*

Adam appeared to have some discrepancies between his opinions about, and his actual experiences of, the relationship. Within his initial narrative he acknowledged views of a simple



relationship but only presented examples of complex associations in his reflections. Illustrations of his original understanding of the relationship are evidenced below.

One particular scenario where this unexpected interaction had occurred for Adam was after difficult break ups from long-term relationships. This had happened on two occasions following separations from each previous partner. The most recent break up was fresh and had only occurred a couple of weeks before Adam began participating in the study. He admitted that the break ups were “*hard to deal with*” and that “*for the first week, or couple of weeks... you’re feeling down about it*”. Handling the effects of the most recent break up were coupled with Adam feeling “*really low*” as he returned to the UK leaving his family and friends behind to complete his final few weeks of university. Although he was sharing a flat with other students, he had also been “*feeling lonely at times*” because “*everyone was doing their own thing*” while he had to study for his final exams. Even though his relationship breakdowns, along with a combination of factors most recently, had impacted his well-being, Adam found that he actually “*performed better after it*”.

*“The first time, after that I smashed all my personal bests and national records... literally it was just like race after race, getting PBs and just running better and better. I was like bloody hell, like I didn't expect it... and now... I haven't run a PB every time, but I am consistent, like running consistently well... I'm performing well, I'm performing better than I have in years... I broke the national record the other day in the hundred in Spain, and I did a really good time at Bedford in the 200, and I'm just like feeling really good about myself and running. It just makes me think like can I not have a girlfriend and like perform well?!”*

Adam’s sport appeared to be a mechanism that helped him deal with his personal issues. He perceived that his latest break-up, had actually given him an opportunity to put his sport at the forefront of his attention and that being able to put his energy into athletics helped him to recover, “*as soon as the break up happened, after that I was literally just focused on running, like I just used it as a way to get over it... I've tried to use sport as like a way of healing whatever you're going through because it does help*”. He believed that he had produced good performances because his sport had acted as a distraction to divert his attention.

*“Try not to think about whatever it is that is affecting your well-being and just focus on what you have upcoming, which is the race, and especially if it's an important race, then you know that you need to like focus all your attention on that and make sure you don't let anything affect your performance.”*

Adam’s immersion in the social environment of his sport facilitated the escape from his issues outside, “*you've got a group of athletes with you, so you've got people to socialise with and... it just drifts your mind off it*”, allowing successful performances to occur. Adam’s optimistic character was a useful trait that contributed to his ability to take a positive outlook under his sub-optimal circumstances, “*even if things are going badly just look at the positive side about*

*it because I mean the last thing you want is for it to affect your performance..., when it's not even relative towards your sport". Adam's "negative experiences" had even acted as "motivation to perform better during training and races". His appraisal of his own situation, along with his lack of tolerance for the transfer of personal problems into his athletic world acted as coping mechanisms for Adam to do well in his sport irrespective of the negativity in his life.*

**6.3.3.3 Diary data interpretations.** Across the period of the study, Adam reported moderate to high well-being values in general. Well-being was mostly consistent with two substantial fluctuations (42 and 44) lower than his typical scores (mid-fifties) indicating a predominantly stable well-being trend across time. Adam also generally reported moderate to high fortnightly average values for training quality. Average training quality values displayed some fluctuation slightly higher and lower than his numbers generally reported. The majority of Adam's training blocks indicated a mixed interaction (one increased while the other decreased) of well-being and average training quality. The remaining blocks fluctuated together in the same direction, suggesting a more straightforward association. With most of Adam's training blocks indicating mixed associations, this highlighted that Adam's well-being mainly did not appear to correlate with his training quality.

**6.3.3.4 Interview 2 and 3.** Within the next interview, Adam's narrative changed slightly. His experiences now corresponded with his views about the relationship as he recalled examples where his well-being did reflect within his sport, as well as the examples he was previously accustomed to regarding his opposing well-being levels and performance. This adjustment to his narrative was then maintained across interviews two and three, where his fundamental beliefs remained stable at both time points. Experiences representative of these two time periods of the study are presented to reveal the narrative at these times

**6.3.3.4.1 The well-being – performance relationship story after 3 months.** Despite Adam previously experiencing complicated interactions of his well-being with his performance, he now recognised the relationship to be quite clear at times. The first three months of the study saw Adam's well-being starting at its lowest point, due to the elements discussed above, and then rising to consistently high scores for the rest of this period. Many factors were responsible for this significant transformation in Adam's well-being, most of which were associated with the key event that was his return back home.

*"I was back in Gibraltar, I was back with my family and friends... I've been living there like my whole life... and obviously the surroundings are familiar to me... I know where everything is and like nothing is new to me, so I'm used to it, like I can get into a routine easily... and I just felt more like calm... I was feeling better... I was settled... I was*

*living with my parents, so I was with them pretty much every day... I mean I'm not saying they do everything for me, but you know it is definitely like a big difference. So, like when I come back from training, you know, my mom or dad, they've cooked something, I've already got food there, like it is definitely a more relaxed atmosphere compared to like when I'm in university and it's more independent... there was nothing to worry about... being with family and friends you know after not seeing them for so long and after the stressful period as well, it's welcoming, it was much better being with them... and just, I don't know, like happier really... being with my teammates as well in Gibraltar... that really helps a lot... because obviously I've been with them for so many years... I've known them since I was, you know, a kid, like grown up with them and that, like training with them... there is like a unity there, like a connection, like we've all got confidence in each other and it's like a bonding we have. Whereas in Liverpool, it's different because I only just met them when I was 19."*

The fact he had now finished his degree at university also relieved some of the pressures associated with studying and exams, as well as the potential for these to be distractions, creating a much easier daily schedule for the summer, where he had time to see friends around his training sessions. Now that his demands were reduced, Adam was able to have a “clear mind... I could think about what I wanted to in terms of like focusing on myself and just improving my times and to get fit” and he had “more time to focus on training”. Adam saw considerable progression in his training, “from then on it just got better and better, week by week, I could just focus more on training, I felt stronger” and he then went on to have a spell of fantastic performances, “that summer I just like exploded really, all my performances just got better every time... I'd say it [well-being] did affect it [sport performance] positively”. His string of outstanding results started with a new national record in the 100m distance, where he ran sub-eleven seconds. Following this initial success, he achieved a huge personal best in the 400m, which turned out to be one of the fastest times in Gibraltar's history. Adam felt “over the moon” with these achievements that he “really didn't expect”, resulting in him heading off to the Island Games full of motivation and confidence to add to his victories, and that he did. Adam qualified first in his 200m heat, proceeding to the semi-final where he came second and qualified for the final. He gained a bronze medal finish in the final, breaking the national record and running sub-twenty-two seconds for the first time ever, earning a new personal best at this distance. Adam's performances fostered a sense of “personal satisfaction” which in turn promoted his well-being. After starting his individual success, he then had to put out some good performances for his team in the four by one hundred metre relay, where they achieved a new national record and advanced to the final. In this period, Adam had recognised that his high well-being and optimal personal situation had helped him to train and race well, leading to a string of successes. He qualified himself for the 400m final through another two races, but he was starting to feel the physical effects of the stress he had already put upon his body from

the “*accumulation of races*” over the championships, “*considering, you know, what I had gone through already in terms of races that week... not only did I have fatigue in my legs... but just physically I felt a bit drained*”. Adam came fourth in the 400m final, which was “*a bit of a disappointment*”.

*I just saw the guy I was chasing who eventually got second place, he was just running away from me and that was like demotivation for me and from then on I just couldn't react, like my legs had just gone and everything and yeah that was like the end of the race for me... normally in like the last hundred and fifty of a 400 you try to like leave a sprint finish, but I just literally had nothing in the legs it just wasn't happening for me.*” The following day Adam and his team had two relay finals. Their performance in the four-by-one-hundred wasn't their best, ending in a fifth-place finish, which Adam felt was unsurprising with the build-up of fatigue. Here, his physical well-being decline had proved detrimental for some of his races, displaying a possible link between them.

Despite the clear struggles within his physical well-being, Adam and his teammates managed to steal a silver medal in the four-by-four-hundred relay final, getting their bronze upgraded on another team's disqualification. Adam felt that this was “*because of the situation... the fact that like because I was the last runner in that relay and we were coming fourth when I got the baton*”, and the runner next to him was a last-minute replacement for an injury, and “*knowing that the third place was up for grabs, it fuelled my hunger... I ran with that desire... I just thought... just run out as hard as you can and try until the end and you've got it.... don't look back... the mental part did play a really big part*”. Adding to the psychological element that played a part in this performance specifically, Adam felt a different sense of pressure and motivation to “*do it for the team*”. Adam had overridden the physical barrier in his well-being and his mind-set had provided a chance for success.

Upon his return from a successful Island Games, Adam took a few days off to replenish both physically and mentally, allowing time to be spent with family and friends, also attending a summer festival, as well as his graduation ceremony. Adam was then convinced by his coach to run a couple more races before the end of the season because of his “*good form*”, despite not wanting to do them because he felt he had raced enough and there would be no opposition or competition, “*not having anyone to chase or like run away from in the race... it's kind of like an automatic response... it's a different mentality... when you're alone you haven't really got that much pressure... you are pretty much just racing against yourself*”. Regardless of the fact his well-being was high, and he was happy, Adam's sessions were not good quality, because he felt that it was “*a really big anti-climax*” and that “*given the fact that it was so late in the season... in terms of the sprinters everyone had finished except me so... I was one of the*

*only ones training*". This situation for Adam highlights that good well-being does not always lead to good performance, if the motivation for the performance is not there. He was losing motivation for training because he was only really working towards the races for his coach and not for himself, and he was not feeling interested or enthusiastic for racing, which eventually affected his well-being. Adam "*didn't have the best of starts*" in one of the races and did not produce his best performance. Then despite feeling a lack of commitment mentally Adam followed this race with a new PB and national record in the next one. Adam admitted he had been rattled by another sprinter prior to the race, who was due to transfer to compete for team Gibraltar but had not yet made the transition, because he had wrongly claimed to hold the current Gibraltar record, despite being British, "*that really ticked me off*". The opponent was due to run the race against him, which gave him the "*extra motivation that I needed to perform*". Adam felt that this rivalry and the British sprinter's actions that had annoyed him had actually helped him to do well in this race even though he was feeling a bit low, "*I think if it wasn't for that, I wouldn't have performed that great that day*". The awareness of the intentions of his opponent spurred Adam to prove himself.

6.3.3.4.2 *The well-being – performance relationship story after 7 months.* After an outstanding summer and moving into the latter part of the study, Adam experienced another significant change in his well-being, transpiring from his most recent relocation to Barcelona, in the pursuit of a higher-level club to challenge him and allow him to advance further in his athletics. The motivations for Adam to relocate were similar to aspects identified (e.g. a quest for new challenges, a higher level of their sport, professional development, lack of opportunity for career development in the athletes' home nation) in some of the previous migration literature (Elliot, 2013; Molnar & Maguire, 2008). His move away from home where he was content, comfortable in his routine, and surrounded by a network of the people closest to him had a considerable detrimental impact upon him, "*here in Barcelona it's been like a bit of like a rollercoaster*". Adam had not expected the transition to be so problematic. Upon moving, he initially lived with his cousin and her husband, which was meant to be for a short-term interim period of a few days whilst he looked for and organised his own place to live. The flat-hunting process was stressful in itself and took him much longer than he had anticipated, which caused him to feel awkward, "*I felt like I was overstaying my welcome a bit... not only for them but for me, like I don't really want to be there, no disrespect to them, but obviously I want to find my own flat and that and, you know, sort everything out as quick as possible*". The location of his cousin's house was a considerable distance away from his training venue, which added pressure to his flat search and his daily routine because of the extra travel demands he had

whilst he lived there, *“it was like an hour in total to get to the stadium... I had to get the train...which was like half an hour, then I had to get the subway underground to like some place, which was close to the stadium, and then I had to walk from that”*. Adam was also facing the challenge of adapting to his new club with longer and more intense training methods and establishing himself in a new social group of teammates, which left him *“feeling a bit lost because obviously I didn’t know anyone”*. Athletes have previously noted increases in intensity of training and conditioning demands when comparing between their home country and their new place of residence (Schinke, Yukelson, Bartolacci, Battochio & Johnstone, 2011).

For Adam to be eligible to compete in Barcelona and because he was also actively looking for employment, he had to register his application for a Spanish identification number card. To obtain the card Adam endured a number of issues that continued for the majority of his time there resulting in him feeling frustrated and stressed that it would never be sorted.

*“it’s pretty much been a joke like the administration... I’ve been sent from one place, to another, to another... got rejected ... being wrongly informed by a lot of people causing confusion, so you have to get another appointment ... it’s just like an ongoing process... I have actually reached the point where I feel like, you know, just giving up and going back home to Gibraltar.”*

Adam felt like everything was mounting up and going against him and during this *“period of transition”* where he was *“getting used to everything”* he also had his phone stolen, *“it was like such a huge blow and... I just felt like the world was falling on me... it does sound a bit dramatic but at that moment that’s just how it felt... when things accumulate, no matter how hard you try you are going to feel like really low”*. Adam felt isolated and questioned his ability to carry on, *“knowing that I was pretty much alone... made me miss my family and friends more... when you are in a tough situation and you are alone, it’s even worse... I thought like... am I going to be able to do this?... you get a lot of doubts in your head”*. This finding parallels loneliness challenges faced by other migrating athletes previously, which often arise through a lack of social connection (e.g. Schinke et al., 2011; Diakaki, Chroni & Goudas, 2016). Adam’s well-being dropped through his exposure to the range of challenges, *“I was mentally really quite low”*, which had some slight negative implications for his training initially.

*“It’s [well-being] just like not as stable as it was in Gibraltar, because... I had a routine there, everything was fine there, whereas here... at the start it was just like stress levels were really high... it’s affecting me a bit in terms of training as well... everything was new... I just didn’t know where I was at times”*.

The period of adjustment and adaptation to Adam’s new life persisted past the time scale he had foreseen. His active effort to restore balance and adapt to his new life (Fiske, 2004) and the accompanying transitional tests he faced, appeared to transfer into his training, demonstrating that a connection was apparent. Despite the current chaos and uncertainty in his

life affecting his sport to begin with, Adam's training quality was generally unaffected by his lower well-being and remained steadily high whilst in Barcelona. His decision to move there to better himself and his sport career was partly responsible for this because it meant he was adamant that he would try to prevent irrelevant things, such as the problems with the identification card, from interfering with his opportunity.

*"I just thought to myself, I'm not going to let something so stupid affect my training... with something small, which has just gone out of proportion for some reason and it's just really stupid... there is no point, like that's the mentality that I've adopted, just block it out as much as I can, because at the end of the day the training is the most important thing".*

Despite his negative experiences, Adam's training hardly fluctuated because of his conscious decision to avert his undesirable thoughts regarding his complications outside, as a way to take control of his sessions. By separating out his sport and his external life, Adam maintained performance in his sport, *"running for me is different... I always try to make that singular, like not have anything else affect it... I always try to give it like my best in my training"*. Keeping the two entities independent helped to reduce the chances of his well-being dipping further, *"if I was feeling negative in my personal life, like anything outside of running... if that affects your session and you have a bad session, it's just going to make everything worse... I would try to use running to improve my well-being"*. The often complex nature of the well-being and performance link is evidenced here and illustrated by a strategy of separating the two dimensions. Adam felt an additional benefit from being able to keep consistency and quality in his training whilst experiencing some personal difficulties.

*"It's a good thing that my training has been going well and I haven't had an injury or anything because if I did... if my training was going badly, then my well-being would be like really low I can imagine... when I came to Barcelona it [well-being] was going lower than usual but my training kept it like in balance, you know what I mean, it didn't drop too much... it's like one thing that maybe isn't going well, but at least another thing is going well, like if it was both going badly then you know I would just be, not depressed, but you know what I mean like really low."*

This experience for Adam highlights how training and performance in sport can have benefits for the athlete in their outside life and can be positive for well-being, indicating that the relationship may work two ways. As Adam gradually resolved some of the situations that were causing him stress his well-being and his training followed a positive trend.

*"It's just been a long, like a really dragging process and it's just been really stressful but... it just took a bit of time to get used to it and adapt to it, but I am slowly getting there... it's just been a step-by-step process pretty much like this whole time... I found a flat so... I was sorted... I feel like that had a massive impact on my well-being... that was like the first thing that I wanted to deal with, just finding my flat close to the stadium so like I wouldn't have to worry about... firstly being at my cousin's house for too long... being closer to the track so I could schedule my time better. But yeah... definitely"*

*once I had that sorted, you know, it was one thing I could get rid of out of my mind... once I got it [ID card] done, like it was just a massive weight off my shoulders and, you know, not only in training but just in general... you get that out of the way then... you just feel more like cheerful and that... slowly but surely, I'm just ticking boxes and my well-being as a result is getting better and yeah thankfully my training is going well."*

The simplicity is again coming through with an emphasis that athletes may be able to do well whilst undergoing difficulties, however it may be easier to focus and approach their sport positively if they do not have problems occurring alongside their sport in the first place.

**6.3.3.5 Summary.** Because Adam's description of how the relationship transpired for him showed some development in the interviews over time, this reveals how his narrative of the relationship occurred slightly inconsistently over time. His set of beliefs varied from his individual experiences initially, but as time progressed these complemented each other, and his narrative gained more consistency over time. Adam's narrative became more consistent following the start of frequent diary entries and over the period of quantitative data collection. His experiences over this period showed regular examples of both straightforward and complicated interactions between his well-being and training quality or performances. The final athlete, Josh, told a narrative similar to Adam's, because of the development that occurred over time and changes to the narrative throughout the study period. This will now be presented with his personal illustrative examples and experiences.

### **6.3.4 Josh's Story**

**6.3.4.1 Background.** Josh was a 25-year-old, national level, middle-distance runner. He started running at the age of 14, competing at school level and continued until going to university aged 18. Following a battle of different injuries whilst competing during his time at university, he lost his love and motivation for running and decided to stop both his sport and his education. Instead he became a ski instructor, working in this role for between two and three years. After having a break, he began training again, aged 23, and decided to return to university to study for an undergraduate degree in sports coaching. Josh perceived that this is when he started to find his talent in the sport and felt that he did better now that he was a bit older and more mature. He won a British grand prix title and aimed to qualify for the British indoor trials. Josh was working twice a week as a ski instructor on an indoor ski slope and during the summer time off from his studies he also worked full time at Center Parcs as an outdoor activity instructor.

**6.3.4.2 Interview 1: initial well-being – performance relationship story.** Josh began the study with firm initial views that his well-being has a relationship with his performance, *"oh massively... whenever I've performed well, I've always been in a good place, definitely.*



*I've never had a good race where I've had something in the back of my mind*". Despite these strong views about the relationship, Josh also acknowledged that it could be complicated at times. Within his initial narrative he acknowledged both straightforward and more complex interactions, however performance factors often accounted for his examples where well-being did not transfer into his performances. Josh's interpretations of the events he recalled highlight his original understanding of the relationship between his own well-being and performance. Illustrative examples are provided below.

Josh's experiences illustrate a clear link between the two elements of well-being and sport quality. He admitted that every year around the time of the anniversary of his dad's death he struggled with his training and performance because the loss still hugely affected him.

*"I never really perform well mid-to-end of January, which is annoying because that's like the perfect time for indoors... as in when you need to be performing your best... my dad passed away when I was six, he died in the mountains... that happened on January 10<sup>th</sup> ... it's weird like even almost 15 to 20 years late... still that time of year is always bad for me. I have two weeks of just awful, I just feel terrible for two weeks and then when it comes to February... I tend to feel a lot better. I don't know why... it's weird now because it's affecting me more now when I get older... I don't think that I've ever really kind of talked about it with anybody like ever... I've talked about it with my mom on occasion, but I think it is going to get to the stage where I'm going to get to 30 and I'm going to have to go and see somebody for it because I've never like truly opened up about it ever."*

The recurrence of emotions at that time of year caused him to re-live the pain annually, because he was yet to come to terms with his dad's death and has still not yet found his way of coping with it. Athletes who have experienced significant traumatic events in their past, may need support to be increased around the anniversary of such events to minimise transfer of effects within their well-being into sport, particularly if these coincide with major sporting events.

Josh recognised that the relationship could also be *"hugely complicated.... definitely, because you can be feeling, and have, the best well-being in the world ever before a performance, but then you can run terribly"*. Josh recalled some instances where this has had happened, and often attributed these to uncontrollable factors associated with performance, such as random accidents in the race, *"I mean as well you can have great well-being and feeling good. As a performance, you get a lap and a half in, sprint starts to come, and you get tripped"*, and also the racing conditions, *"weather conditions change like that in the middle of the race... it can ruin you"*. Josh had also entered a competition on a high but did not end up with the results he had expected and hoped for.

*"I think the Scottish indoor 1500 m Championships... I ran pretty much the entire race, and then some guy out-kicked me with about 30 metres to go. I didn't really get it because it was such an emotional kicking, the fact that I knew I was in the best shape"*

*of my life and yet I got beat, and I think on that day it dawned on me that like you can be in the best shape of your life but then someone may always just beat you”.*

These instances for Josh do not appear to show well-being and performance coinciding, however it appears that these performances were not optimal because of performance factors, rather than well-being factors.

**6.3.4.3 Diary data interpretations.** Across the period of the study, Josh reported a range of low and high well-being values (lowest 37, highest 67, out of a maximum possible value of 70). Well-being was quite inconsistent with multiple substantial fluctuations, especially within the earlier training blocks, indicating periods of varied well-being. Well-being values generally demonstrated an upwards trend, becoming more stable across time. Josh also generally reported a range of moderate and higher fortnightly average values for training quality. Average training quality values displayed some fluctuation higher and lower than the numbers generally reported. Training quality generally had an upwards trend across time. Josh had almost equal training block instances of mixed (where lines varied in opposite directions) and matching (where lines varied together) interactions between well-being and training quality, highlighting both corresponding and non-corresponding associations.

**6.3.4.5 Interview 2 and 3.** Within the second interview, Josh’s narrative altered slightly. Over the 3-month period he demonstrated that he still consistently experienced both straightforward and more complicated links in his well-being and performance. However, over time his opinions about the relationship had reversed, likely in line with some of the experiences over the study. Despite solid perceptions during initial discussions, Josh now appeared to strongly believe that there was little or no connection between his well-being and his training or performance quality.

*“No not at all, I think it’s got a very low relation... my well-being to my training. Like I can feel awful, like the most down person ever, but I’ll still go out and do the session because that’s what’s written down and that’s what’s needed to be done.”*

His perceptions did not completely match up to his actual experiences. This adjustment to his narrative was sustained across both interviews two and three, where his fundamental beliefs remained stable at these two time-points, along with the story he told. Experiences from these two periods of the study are presented to reveal the narrative at these times.

**6.3.4.5.1 The well-being – performance relationship story after 3 months.** Throughout the first three months, Josh endured substantial fluctuations in his well-being. His well-being often appeared responsible for his training quality during this time period, implying consistency in his experiences of a clear relationship in some instances. His experiences illustrated the relationship between well-being and training quality in line with attempting to

sustain and manage employment alongside sport. Josh's well-being declined mainly as a result of the extensive demands of his job and the subsequent acceptance that he was struggling to manage and maintain his training demands because of this.

*"I was leaving the house at 6:45 to get to work for 7:30, working all day... I'd do nine hours and then I'd finish work... then I'd leave work at five or six o'clock... drive to where I'd run... I wouldn't get running until six or seven o'clock... and then drive home... I'd be home by nine, showered, food, in bed by 10. And there was no, there was almost no downtime, like as in where I could just relax or chill out... and that was like it for the entire summer... so like Tuesday, Wednesday, Thursday, Saturday, Sunday... it was hard to adapt to like working 50 hours a week and then training on top again... and mixing with training and racing as well."*

Josh's work commitments took their toll on his training. His work made it *"impossible for quality sessions... when you need to focus, and you need to get like a quality session where... you need to hit times, you need to be in the right frame of mind"*. Because of his tough schedule and the physical nature of his work, *"at work... I'm on my feet nine hours a day... I was averaging like walking would be between five or six miles a day"*, it meant that he was turning up to sessions and being unable to deliver them, *"physically you're just drained, you go to the track or you go to run, and you are drained... can't get your legs turning over how you'd like them to be... trying to run quality sessions... off nothing in the tank"*. His lighter sessions were feeling much harder than they should, almost as if he had done a session of much higher intensity and he could feel himself naturally getting increasingly unfit. He was way off from hitting his PB times and targets, which led him to question the point of his training because of his lack of improvement. This situation for Josh highlights how full-time employment affects both the physical and mental well-being of athletes, which can interfere with their ability to obtain quality in their training. Josh had been looking forward to a summer full of races that he had planned, however together with his coach they came to a decision to withdraw because he *"just couldn't mix both together... not much point in racing if you can't get the quality"*. Josh described this decision as *"psychologically battering"* and his well-being hit a *"massive low"* following his withdrawal from racing because he felt like his training now had no purpose, *"I'd be thinking to myself, what is the point? I'm not training for anything, like I've got no goal now... I had nothing to work for, I was literally just doing sessions to keep fit"*. Despite being convinced that no relationship existed between well-being and sport performance, Josh had identified a number of examples where a potentially obvious link appeared to be present. Although he had feelings of frustration and his training lacked meaning, in hindsight, the fact that Josh was still training at all during this stressful period maintained some level of well-being for him.

*“I think if anything, that was kind of keeping the well-being at the level it was... if I hadn’t have been able to train, do some sort of training or go out and get something done... if I’d had an injury, I think we would have been looking at a well-being of like three or two across-the-board constantly. Like that kept me sane in a weird way.”*

Josh had been facing the tough realisation that he was failing to succeed at managing full-time employment with his elite sport career, with negative implications upon his well-being. Although most of his training suffered as a result of this struggle, he had also been “*banging out*” some very high-quality sessions despite the difficult situation.

*“I felt like if I raced now I could run something big like, really could, but then like the well-being was at such a low, like just filling that well-being in, just being like that’s awful... when you fill in obviously about your feelings and how you’re feeling about this... there was times where I’d be like threes or twos... optimism would be at an all-time low... sometimes where I feel awful, like psychologically awful, like well-being feels bad... there were some really good timed sessions.”*

Josh attributed a number of reasons to these instances. Some sessions he felt were successful simply because of his love and enjoyment for the sport, training and racing, and he would be “*generally happy if I know I’ve worked hard*”. At times he put it down to his mental state with the approach that the only option he would accept from himself was to do well.

*“I’d kind of obviously set a stall out that I wanted to do that now and I was like well no matter how... there was no clear thought behind it, it was just open-mindedness... sheer mental capacity, just having the ability to just be like that stubborn to be like this is happening... sheer stubbornness in wanting to finish and wanting to just do well. I think there is a point where you just turn around and think to yourself I just need to do well here... very much like a one-way train”.*

Josh also felt that his experience of training in the sport helped him at times with his sessions when he wasn’t feeling his best because they were almost automatic responses.

*“It’s muscle memory compared to last year, like I know what it takes to run those sessions, like I’ve ran that 10 x 200 off three minutes, I’ve done that over 12 or 13 times that session in like my life, so it’s like that second nature. I know what I need to do when I get down to the track. I know exactly the feeling that it should feel every time I go out and do it. So, it’s just psychologically, it’s in your brain ready to go... like I don’t need to think about it, I don’t need to know that I’m fit to do it, I know that I need to be hitting these times in order, in relation to my fitness.”*

The times where his well-being and performance did not coincide, appeared to provide evidence to Josh that the two elements did not influence each other in every instance. Whilst he had completed some really good sessions and also generally very poor sessions during the time of his struggle to balance sport and employment, Josh reached a point in the first three months where he felt like he had started to regain some control over his situation.

*“Before the session... I’d worked, and I felt okay. I remember finishing work and not feeling that tired... being like right, that feels okay, we will see how it goes... I remember the first three or four reps going by quite quickly... getting to number five and was like, oh I’ve only got three to go here and I was like, oh this feels alright I can*

*deal with this... I finished, and I was like, I feel quite decent here, that was quite good, we will take that."*

Josh had managed to get *"back into a routine again"* and felt like he was able to deal with his sessions better even after his days at work, *"I started to actually link some steady runs, I am getting into the routine of training again... I did start to hit some kind of consistently good sessions on the trot"*. Because he was coping better with the demands upon him, his training reflected this in the high-quality sessions he had. Some sessions he *"felt amazing"* and *"it felt easy"* and he even got a new PB in a training race, *"felt really good all the way... well-being was good there, I'd say at that point"*. Although Josh felt there was not really a relationship, or that it was at least not clear, examples like this suggest there may have been.

6.3.4.5.2 *The well-being – performance relationship story after 7 months.* Josh was due to make the transition from working in his summer time employment, back to university to study for his first semester of the new academic year. This change in schedule for him reinforced the complicated nature of the relationship between well-being and performance. Over the remaining months of the study, Josh's well-being gradually and significantly improved, and gained in stability, *"I am in a different place at the moment... I've never ever been this happy. I'm in like a new optimum that I didn't think was kind of possible"*. However, his quality and performance in his initial sessions once back studying did not follow suit, *"in the phase of leaving work to come back to uni I was in a really good place... dead happy kind of all the time, but training was awful, like it was terrible... I can be really happy but still run awful"*. Josh emphasised how important he felt being in a routine and having consistency was for his training, so because his daily timetable had been disrupted and was up in the air upon his return to uni, this may have contributed for his poor sessions. Josh also had a phase of complete rest after feeling a few niggles at the back end of summer, so his fitness, which would have declined rapidly, would take some time to re-establish. It was also likely that he was getting back into his training being more serious again and establishing goals after his period of what he felt like were aimless sessions. These factors may have all accounted for his sub-optimal sessions despite his newly found optimal well-being.

Once he established some structure and had begun to settle into a new routine, *"being in a routine is a factor 100%... I've been getting up at like half six, seven o'clock every morning and going to bed at ten constantly, there has been no like wavering"*, his training started to become more stable and consistent, and gained momentum.

*"According to my training diaries, I've had 16 weeks of consistency... like week in week out, everything has been progressive, like there has never been a week where there's*

*been a little bit of a lull point or it's been down. I've had the odd session that hasn't really gone to plan... but the majority have been like perfect. I've been right up here.*" The stability and progression evident in his sessions appeared to uplift his well-being even further, *"happier definitely yeah... running involves my entire life... when I can do it properly... I am just in a way happier place... I am generally happy all the time because I can train to my full potential and there is nothing in my way"*. He had reached a point where he was handling life well.

*"Well-being has been great, I'm in an amazing place at the moment, I genuinely feel like for once I have life under control. This is the first time in probably the best part of three years where I've felt like I'm in control of my life, like I can know what is going to happen around the corner before it kind of happens. I think it's just because I've got so much balance."*

Because of this, he was doing well in all aspects of his life, *"feeling good at the moment with training going well, keeping up with uni work"*. Over this time, Josh saw massive improvements in his training and felt his sessions were benefitting from the positivity he had.

*"I've hit some big sessions... some of the sessions I've ran have been absolutely stupid... a big session that stuck in my mind, I did three by 800 on the road... I ran 2.13, 2.10 and then 2.07 to finish, those are ridiculous times on the road... that was a massive confidence boost... training and consistency and confidence have just been week in week out decent... feeling in great shape, so this has contributed to me feeling so much better mentally and feel more relaxed and happy with life"*.

Because he was *"in a happy place"* he felt that he responded better to uncontrollable factors that arose during his race. When he got to the venue and was taking in the atmosphere and beginning to prepare, shortly before the scheduled start time he was informed there would be a *"40-minute delay"* to the start of his race. Josh admitted that *"that would have thrown me last year... the race would have been out the window"*, but instead he was not bothered about this change. This situation for Josh highlights how well-being may have an effect on athletes' responses to potentially negative or distracting circumstances. Josh ran well in the race despite the pre-race circumstances. A more straightforward relationship was shining through here again. Although his well-being had seemed to help him with his training and competing on many occasions, this was not the case for every event. Although his well-being and his confidence and consistency in his sessions had been building over the training period, Josh was disappointed with his performance in his 2000m race. He felt out of practice with racing considering his break from competition and felt like he *"just didn't commit at all"*. Josh also identified that he had doubted himself prior to the start of the race.

*"I got quite inside my own head at the start of the race. I was a bit like, am I ready to do this? I know I've done a lot of training, but am I definitely ready? And like you can't be doing that you need to just go into the race and be like, no I'm ready, I know I've put the work in, sessions have been going great, I've just got to hammer out a big time."*

This situation for Josh highlights that well-being may at times be irrelevant to performance if the mind-set for the performance is not correct. Josh concluded with the perception that well-being and performance were not related, *“I honestly feel like my well-being and my training have no concept together”*. His views had developed over the study period, with his initial belief that the relationship was a straightforward one, however during the course of his participation in the research the events that transpired for him influenced the way he thought about it and he began to see the relationship as more complicated, and less evident. Josh’s experiences as the research progressed and the potential increase in his attention paid to the relationship between his well-being and performance because of his involvement in the study may have caused him to consider his opinions and come to a realisation that his initial views were not actually representative of his experiences. Josh expressed the benefits he gained from taking part in the study. Following the interviews, Josh stated, *“I feel like I’ve had therapy”*. The process of completing the diaries also provided therapeutic tendencies for Josh, allowing him to consistently reflect on his experiences, *“you’d be surprised how much filling in that well-being every two weeks helped and really rationalised it, and put it into perspective”*. This point highlighted by Josh suggests that regular monitoring of well-being and discussions surrounding it may help athletes to be more aware of and process their experiences, and provide opportunities to confront issues that they may be suppressing.

**6.3.4.6 Summary.** Because Josh’s description of how the relationship occurred for him showed some development in the interviews over time, this reveals how his narrative of the relationship was somewhat inconsistent over time. His views appeared to vary from his individual experiences as time passed, but he consistently illustrated simple and complex associations. His opinions appeared cemented in the latter stages of the study, with his narrative gaining more consistency over time. Josh’s narrative became more consistent following the start of frequent diary entries and over the period of quantitative data collection.

## 6.4 Discussion

The aim of the current section of the thesis was to examine, longitudinally, elite athlete narratives of the relationship between well-being and training or performance quality. Athlete narratives were communicated through the presentation of separate cases temporally at multiple time points, illustrating individuality in the experiences of the relationship over time. A similar general narrative emerged across cases whereby the relationship presented as complicated overall due to both the straightforward and more complex interactions that athletes experienced. The general narrative remained predominantly consistent over time. Some variation occurred in the stability of the narrative told because of fluctuations in the particular

nature of experiences or transformations in views regarding the existence of the relationship for particular individuals. Athletes indicated perceptions of a consistent and repeated struggle to balance and manage multiple life domains over time. Coping strategies to obtain approaches conducive for performance with low well-being, were similar to those illustrated in previous chapters, and were identified and consistently applied across multiple time points in line with a range of different contextual experiences. The well-being – performance relationship was also perceived to be influenced by athletes having to respond to particular environmental demands, some of which were specific to the type of sport in terms of its characteristics and requirements. Results also revealed that athletes perceived and experienced well-being within two contexts: general life and sport.

The current study primarily adds to the literature by offering the first exploration of the narrative of the well-being – performance relationship according to elite athletes across multiple time points. Such data provided the opportunity to identify whether any resonance and dissonance occurs between narratives constructed longitudinally with those composed through cross-sectional means in earlier studies within the thesis. In answering a similar question to those proposed in chapters four and five via the use of a different methodology, the current findings established considerably similar results to those in the earlier studies. The general narrative that emerged as a whole from the current athletes parallels quite closely the overall narrative that emerged in the other thesis studies, indicating that both one-off and repeated examinations of the narrative provide a similar story. Well-being again appeared at times to be synchronised with training or performance quality and, on other occasions, the state of these two variables were misaligned. These findings indicate that, longitudinally, the general narrative emerged as comparably complicated to when explored cross-sectionally because the well-being – performance relationship was experienced in similarly clear and complex forms over, not just one, but multiple occasions. General consistency in cross-sectional and longitudinal findings increases confidence in the results found throughout the thesis, and this replication enhances the gravity with which the results can be considered. Due to the longitudinal nature of the current study, it was possible to consider differences in experiences that occurred across similar points and events. Adam and Josh both indicated periods of time where their university commitments were ceased due to either their summer break following completing their degree or between the end of one academic year and the start of the next. Adam and Josh's experiences of the well-being – performance relationship were considerably different over this time as Adam returned home to live with his parents with a sole focus on sport and Josh began full-time employment alongside his sport for the summer. Despite the



period of downtime from studying, both athletes individually demonstrated how they experienced stressors at different times. In light of this finding, lifestyle and support providers may help athletes by mapping key competitions and training schedules of different sports and assessing how these might interact with academic demands or down periods in advance.

The results of the current study show that athletes' views about the existence of the relationship between well-being and performance may change over time. Although the majority of athletes in this study maintained consistency in the *types* of interactions within their experiences over time, and held constant fundamental beliefs, others perceptions changed from one time-point to the next. For example, Josh's views transformed from initially firmly believing a connection was present between his well-being and his sport performance to subsequently perceiving little or no relationship. Josh's narrative appeared to change following completion of the first period of tracking his own well-being and training quality, becoming more solid after this point. The fact that within this period he was regularly tracking both factors, this may have contributed to the differences that emerged in how he saw the relationship. Self-monitoring provides opportunities for enhanced self-awareness, as well as increasing individual's consciousness to certain things that are occurring in their behaviours (Orji et al., 2018). The narrative may have adjusted over time as a result of the athlete becoming more conscious, self-aware, and sensitised to their own experiences because of the frequent and repeated monitoring of their well-being and training/performance. Also engaging in repeated discussions, where athletes discussed the relationship initially and subsequently discussion was pressed and probed, may have encouraged the athlete to be more reflective about the associated details of their experiences, resulting in developed thinking and understanding. On initiation of the study Josh had only recalled times where the state of his well-being and performance appeared to match and had recognised that certain performance factors were responsible for sub-optimal performances on some occasions of higher well-being. Over the study period, Josh then went through a difficult phase managing the interaction of his working life demands and his sport demands and was still able to do well at times, which may have contributed to the change in his narrative. Had he not had these difficult experiences, he may have maintained his original views. This finding illustrates a potential methodological strength in conducting longitudinal research to examine the relationship, highlighting why multiple interviews may be required to fully understand the phenomenon. The fact that some views can change and evolve over time, likely in accordance with different experiences, suggests that to explore athletes' stories on a single occasion may result in a missed opportunity to extract particular details of experience as they develop. An alternative consideration for the

transformation in views and the inconsistencies and variations in the narrative, may have also stemmed from the development in the relationship between the athlete and the researcher, causing athletes to feel more able to open up and be honest. Josh may have originally felt that the researcher wanted and expected to hear that athletes thought there was a relationship, as that notion was the main topic of the thesis, suggesting his descriptions may have been influenced by social desirability (Edwards, 1953). Over time he may have built up the confidence to challenge this.

A number of aspects contributing to, or with a role in, the relationship within the current athletes' narratives parallel some of those identified in athlete and practitioner narratives in previous studies of the PhD (e.g. *balance, mind-set, coping*). To avoid repetition of the discussion of these findings in terms of their identification and application, acknowledgement is given to those that emerged across time. Given these major observations have been detailed in earlier chapters, relevant literature will be cross-referenced where appropriate, with recognition of any advancements in the current study on previous findings within the thesis.

Previous literature in the area (e.g., Pink et al., 2015), and study two within the current thesis suggests that balancing sport alongside life is significant to, and often accountable for, variation in performance. Aligned with this suggestion, the current study also acknowledges a sense of balance as the foundation of the relationship, where emphasis appears to be placed upon the ability of the athlete to manage competing demands from different life domains alongside demands of their sport. Where the current athletes encountered fewer demands their stories indicated perceptions of better well-being and higher quality sport practices, and where their stories reflected excessive demands perceived as stressful, performances often deteriorated (see chapter four for a more detailed discussion of this finding). The current study extends knowledge surrounding this aspect of balance (e.g. Pink et al., 2015) by illustrating that this struggle to manage sport alongside life demands reoccurred frequently in the narratives across multiple time points, suggesting it remains to be a consistent problem for athletes. Athletes in the current study were receiving some form of lifestyle management support either directly through their sport or via their university scholarship programme. Regardless of the lifestyle support available and the associated positive effects of these services (Henry, 2010), this issue of effectively managing multiple domains did not seem to subside, but arose as a persistent issue within the narratives. The prevalence of this issue for athletes highlights that perhaps the lifestyle support services athletes are receiving are insufficient, in terms of contact time and the management skills being developed, to prevent them from struggling with these challenges that can be detrimental to well-being and performance. Athletes are encouraged to

pursue outside interests and often feel a necessity to do so in anticipation of the future, however perhaps high-level dual-career athletes are also asking too much of themselves. It may be useful for more athletes to consider extending the timescales expected to complete education and degree programmes past those projected for non-athletes (Henry, 2010), to reduce the pressures and stresses of such high demands in combining multiple life areas. Similar strategies may not be feasible for those balancing employment alongside sport. Perhaps an increase in the support that these athletes receive is needed, emphasising further development of practical approaches (e.g. time management techniques). Additional education surrounding how athletes can maximise their own resources, as well as the benefits to employers of having elite athletes who possess a unique set of skills as assets working within their teams and systems, may work together towards making their situations easier to manage.

The current study also adds to knowledge by highlighting a secondary, but potentially more important, aspect when considering whether athletes are managing the load of their, often multiple, life domains (e.g. sport and studies). For the purpose of this study, successfully juggling all areas of life appeared beneficial for sport performance, but the advance referred to where athletes struggled within this aspect, because not only was performance affected, but this led to dangerous consequences (e.g. Jack's car accident) in some instances. This finding suggests that helping athletes to balance and maintain control over the contribution of different domains may be predominantly important to ensure their safety and health over the influence this has on performance. In addition, the narratives indicate that performance lifestyle support or intervention may be particularly key at certain time points, including; a shift or increase in demands associated with sport (e.g. increase in training hours or intensity, increase in travel demands to training venue), a shift or increase in demands outside sport (e.g. transition from education to full-time employment alongside sport), and leading up to and during perceived times of stress (e.g. important sporting and academic events occurring simultaneously). Efficiency of the initiation of practitioner intervention may prevent or reduce the chance of athletes reaching points where they become so overwhelmed that they place themselves in situations of undue risk.

The results of the current study also highlighted that there were occasions in the narratives where athletes' well-being did not appear to be reflected in the quality of their sport training and performance, supporting findings from study two and three. Where these instances occurred, the mind-set or mental approach of the athlete could again be acknowledged as responsible for the performance outcomes, which was also discovered in study two earlier in the thesis. A range of similar coping strategies emerged within the current athletes' narratives

to those identified in the previous chapter (e.g. blocking out or avoidance of issues, transformation in attitude or outlook to a more positive approach despite negative circumstances, and sport used as escape or distraction from low well-being). A more detailed discussion of these coping strategies is presented in chapters four and five. The results of the present study extend these findings by demonstrating that where athletes experienced low well-being, the appropriate mental state manifested in different forms in their narratives. Athletes in study two identified drawing upon negative issues internally within their well-being (for example, the death of a family member) as a means to generate motivation for performance success alongside low well-being. Advancing on this point, the current athletes acknowledged that where they had been successful in their sport whilst struggling in their well-being, they had often attributed this externally to the emotions associated with positive opportunities or situations within particular sporting events. For example, the buzz and excitement of competing in the first game of a major tournament, the thrill and challenge of competing against top-level opposition again, the opportunity of helping their team to win a medal unexpectedly, and the opportunity to beat an established rival opponent. In their stories, athletes were all enduring sub-optimal well-being at these times and were able to perform well through what appeared to be the stimulation of an emotional response of motivation and perhaps pressure, presented through positive opportunities. This finding extends evidence suggesting that well-being is not always essential to perform, and suggests that where there appears to be an externally motivating factor athletes' low well-being may not actually determine performance outcomes. Whilst these externally motivating events are not generally controllable (i.e. the athlete cannot always engineer a situation that provokes an emotional response), perhaps athletes can work on developing the ways in which they respond to such occurrences, so that if they arise, they are equipped to utilise them in the most facilitative ways.

Supporting the findings with athletes and practitioners earlier in the thesis (chapters four and five), coping strategies to evoke a mental approach conducive for performance again played an important role within the well-being performance relationship, particularly when well-being was low. Extending these results, the current study illustrates that elite athletes implement the same or similar methods and strategies of coping consistently over time, when managing the interaction of their well-being and training/performance. Athletes in the present study did not identify any particularly novel strategies to those already highlighted within earlier studies of the PhD, however they illustrated that a similar range of methods are applied at multiple time points and throughout different experiences. These coping strategies were likely identified initially as methods occurring as a natural reaction or response to the situation,

and over time, after multiple discussions in interviews, became strategies chosen and applied more consciously and selectively. This finding suggests that perhaps athletes perceive that the approaches they implement are in fact effective for promoting performance opportunities alongside low well-being. An additional consideration is that perhaps these are the only coping methods that athletes are aware of for managing the well-being and performance relationship, indicating the potential limits in their knowledge and application of relevant strategies. Whilst it is acknowledged that the strategies identified by athletes appeared successful and effective (based on their identification and discussion in relation to performing well), these may not be the only effective methods. Further research may develop the resources available for athletes by assessing the effectiveness of the coping strategies they have identified, and perhaps categorising these in their suitability to particular circumstances. Athletes may also benefit from extending their repertoire of coping strategies as there may be others that are even more effective than those currently being utilised in their narratives. Performance lifestyle advisors and sport psychologists may need to assist athletes in identifying their most effective strategies, but also expanding their coping methods, as it is considered within their roles to have a creative and broad scope of how athletes can function and manage to their best.

The current study also adds to knowledge as it presents the narratives of single cases, illustrating and documenting how the relationship plays out for each individual. This approach allowed for the rich detailing of athletes' lived experiences and aided the in-depth understanding of the narrative at the individual level. In studies two and three of the thesis, the narrative emerged from grouping the data together, with a potential loss of context and depth. Being able to see the individual narratives provides a new perspective and a new way of looking at the relationship, which promoted the opportunity to bring out more context and details about the athletes and their experiences, enabling illustration of the narratives in action. Taking an approach that facilitated the documenting of specific happenings and experiences for individuals adds depth to knowledge and may enhance the transferability of the findings to other people in similar situations. Also, the systematic review in chapter three highlighted that previous quantitative work had provided mixed conclusions about the nature of the relationship. The current study offers some explanation as to why this may be the case by illustrating context and giving some indication as to why the data has not shown a clear, straightforward relationship.

The findings of the current study support results in the previous two studies that suggest the well-being – performance relationship is considered difficult to explain or precisely describe because it is highly individually circumstantial to the person experiencing it. While

the present research has shown similarities to the general narrative of other studies in the thesis (i.e. that the relationship is complex), it is acknowledged that each individual athlete experienced interactions of their well-being and training quality/performance in accordance with the distinct challenges of their own circumstances. Situational factors are considered to exert influence upon people's well-being (Johnson, Robertson & Cooper, 2018). The relationship often appeared to be influenced by athletes being forced to respond to particular environmental demands personal to them. These environmental demands, as illustrated in this study with for example, Jack's weight pressures, often evoked detrimental consequences for well-being and performance, influencing how and with what context athletes experienced the relationship. In this example, Jack's story was heavily influenced by pressures specifically inherent within his sport. Although it is accepted that sport can provide well-being benefits (e.g. Agnew et al., 2017), well-being levels appear to reduce as sport becomes more competitive (Chatsizarantis & Hagger, 2007), with certain aspects within this study demonstrating how this may materialise. The current study highlights that some elite sports can require engaging in certain unhealthy practices (such as extreme weight loss), which is akin to other negative body-related implications involved with participation in competitive sport (Rice et al., 2016), and how these manifest themselves implies an advance here. The fact that some sports may present with more extreme demands, such as those identified here, suggests that athletes' well-being experiences may be reflective of this, and that the type of sport influences the well-being – performance relationship because of its characteristics and requirements. As attributes of the sport have emerged in the narratives here as having potential to indirectly affect performance because of how well-being is influenced, this demonstrates support for the notion that the well-being – performance relationship may in fact be bi-directional (Brady & Grenville-Cleave, 2017). It may be useful for future research to explore the aspects of particular sports that have potential to impact athletes' well-being in ways similar to the weight pressures associated with boxing. In addition, the current findings illustrated other examples of environmental demands that athletes were responding to within their lives, in line with situations that may be viewed to some degree as types of within-career transition processes, such as loss of funding resulting in the transition from full-time athlete to part-time athlete, and migration to new countries and clubs (Agergaard & Ryba, 2014). Support providers may benefit from carrying out some form of audit with athletes to map factors associated with specific sports, and also explore aspects with the potential to arise as environmental demands that athletes must respond to. It may be useful to bring awareness of these features, firstly so that certain sports that present with unique challenges, requirements and practices can be

targeted for additional support provisions for helping athletes to maintain and manage their well-being and performance. For example, with weight making in boxing as identified in the current study, additional appropriate sport science support to manage energy levels better alongside the required restrictions, may allow better training quality and performances to occur. Athletes in sports where weight categories are an integral component may also need additional emotional support and guidance throughout these periods of pressure. Secondly, so that support staff can tailor their services towards the individualised environmental demands of each athlete accordingly, to be more effective in their service delivery.

Athletes in the current study identified that their well-being had been experienced in two separate contexts: their general life and inside their sport. General well-being related to how they were feeling and functioning as a person in the world and sport-specific well-being related to how they were feeling and functioning within the sport context. Well-being in the sport domain was affected by relationships with teammates (e.g. the negative dynamic within Lucy's team, the jealous and unsupportive vibe from Jack's training partners), relationships with coaches (e.g. the lack of autonomy Jack felt with his coach when making decisions), stresses associated with sporting roles (e.g. Lucy's captaincy), the atmosphere in the sport environment (e.g. Jack's hostile gym environment, Adam's positive training environment), and adverse sporting events (e.g. Lucy's loss of funding, Josh's withdrawal from competitions). By considering that these sport-related factors would affect how they were feeling inside their sport setting, and subsequently then their training or performance was impacted, athletes may have benefitted by being able to compartmentalise and keep these issues within the sport domain to increase their chances of maintaining well-being in a general sense outside sport. Supporting the finding of Lundqvist and Sandin (2014) that general well-being can cushion or make up for the effect of well-being issues within the sport, the current study findings illustrate that good general well-being was perceived as important within the relationship, as it could often account for athletes' positive responses or reactions when presented with negative events or occurrences in their sport. Adding to this, the current findings showed that if well-being within sport was good, athletes could perform, and this was perceived as more important for performance than the necessity for well-being in general life. Also, that maintaining a good sport well-being meant that where athletes were really struggling in their outside lives, their sport prevented their well-being from hitting rock bottom. The present findings suggest that both general well-being and well-being in sport have a role to play in helping athletes navigate the relationship with their performance as both are considered useful and important at different times.

The quantitative findings from athlete diaries highlighted that each individual presented with their own *norms* when it came to the values reflecting their general well-being and training quality. This individual and holistic approach of monitoring was able to offer indication of where certain athletes demonstrated theoretically positive or negative profiles and where some showed consistency (or periods of consistency) within a particular profile. This finding is considered an interesting point because even though each athlete presented with their own original profile, the narrative of the relationship that emerged across cases was considerably similar. A potential reason for this may be attributed to the fact that perhaps individuals calibrate their well-being differently. As the athletes' profiles emerged and developed it was possible to identify incidences or periods of concern via fluctuations, which were then raised with them in the interview discussions. Whilst these profiles were used in this study predominantly to gain insight and to guide the route of the discussions for the current research, similar processes may be of benefit in applied practice. At present, many elite athletes are monitored in terms of physiological data to establish effectiveness of training programs and can be required to fill out types of wellness forms, often targeting their physical load and recovery (e.g. Halson, 2014; Kellman, 2010). Whilst it is fairly standard to monitor physical aspects to inform periodised planning data, well-being monitoring may be a complementary addition to the battery of testing and tracking that athletes have regarding their physicality. Plotting well-being over time with a collection of measures, both quantitative and qualitative, may help athletes to become accustomed with their individual norms and typical profiles, so as to be able to identify when they slip outside of their normal profile range, which may provide an indication that an intervention or support is needed to help them to restore back to their normal levels. Athletes have previously been shown to have their own individual zones of optimal functioning (IZOF) for performance, in terms of subjective emotional experiences, where for example high anxiety might actually be helpful for some athletes (Hanin, 1995; Ruiz, Raglin & Hanin, 2017). The current study advances knowledge by suggesting that there may also be individual optimal zones of well-being that account for idiographic differences in experiences, where athletes performances are facilitated when inside these zones, and negatively influenced outside these zones. Increased self-awareness for athletes of their own experiences is likely a key facet of the relationship. The fact that these individualised profiles of the well-being – performance relationship emerged for each athlete in the current study, also highlights the potential value of such monitoring for the benefit of practitioners in a broader sense, to enable them to get to know their athletes and athlete self-discovery. Adding to this, the practitioner may find advantage in learning what each individual athlete considers a



significant change within their profile. For example, one athlete may fluctuate by two to three points and this may trigger a substantial change in them emotionally, whereas another athlete might fluctuate by five to six points but may be largely unaffected by this and may play this change down. How athletes respond to their different ratings and how they perceive fluctuations may need to be taken into account, as these differences will likely affect how the support staff should respond to these variations. Such well-being profiles may facilitate athletes in maximising their well-being by increasing the efficiency with which fluctuations are prepared for and responded to by themselves and those that support them.

#### **6.4.1 Strengths and Limitations**

A notable strength of the current study is that it has examined the narrative of the relationship between well-being and training/performance quality longitudinally, which meant it was possible to examine dynamics within the narratives across repeated time points, as opposed to them being restricted to one particular point in time. Repeat contact between participant and researcher also promoted opportunities to develop good rapport and a more trusting relationship, allowing athletes to feel more at ease to give open and honest responses. The cross-sectional studies earlier in the thesis required participants to reflect on experiences from any part of their past, which may have happened months or years ago, whereas the present study required a focus on the reflection of situations within a timescale of the participant's immediate past. Although the interviews were still retrospective, discussions were framed within a shorter scale of time and reflection. The fact that there were multiple interviews and the athletes were followed over time allowed them the opportunity to reflect on events that were still fresh in their minds. The provision of repeated discussion may have also caused them to actively engage in thinking about the different factors they considered to be associated with the relationship and to analyse and develop their thoughts about their own experiences as they happened.

One possible further strength of the current study is the quantitative data, which may have helped inform the qualitative findings firstly by promoting the continual processing and questioning of participants' own thoughts and experiences of the relationship over time. Also, by aiding with the identification and analysis of changes/interactions, and subsequently these points acting as prompts to supplement the interview guides and assist in refreshing participants' memories. This data provided the athletes with a visual representation of their own experiences during discussions to facilitate them with their interpretation. It also gave some clarity to the identification of different interactions between well-being and performance

by presenting the actual numbers or values reported by the athletes, showing the extent of the perceived fluctuations within the constructs of well-being and training/performance quality.

A final strength of the current study is that it revealed the individuality of athletes' experiences by presenting singular cases. This added depth to our understanding and means that athletes and those who support them may be able to resonate with the current athletes' stories and identify parallels to their own situations, or those of their athlete clients. By doing this, they may recognise ways to deal with their own circumstances that they may have otherwise not considered. The individuality between the cases of the relationship experience also highlights the need for support to be individualised (e.g. one athlete may need increased support in balancing their demands, whereas another may need increased emotional support, or development of coping strategies).

The limitations of this chapter of the thesis should be acknowledged. First, some participant attrition occurred from the original sample across the time of data collection. Those that dropped out were athletes from a range of different sports and backgrounds to those that completed the study, therefore it is possible that their narratives and specific experiences may have told different stories, and the consistency with which these played out may have also varied. Although drop-out of participants occurred, the sample included was able to provide in-depth examples of athletes' well-being – performance relationship experiences that also highlighted variation and individuality in their narratives.

Another limitation within this study relates to the lack of identification of specifically when and why some of the athletes' narratives changed over time. Although some development occurred during the second interview, it was not clear as to when these insights changed exactly, and which circumstances led to these changes in the narrative. Only best assumptions can be made as to why these differences emerged. There were only three qualitative data collection points, that were a minimum of three months apart. Further research examining the relationship more often across time may elaborate further as to the particular timing and cause of the inconsistencies and developments within the narrative over time. Whilst the aims of the study were to understand the narratives longitudinally, this limitation may not have had much influence on how the athletes told their stories but is acknowledged.

A final limitation of the study was the reliance on self-reported measures within the quantitative section of data collection. Self-reported measures are dependent on the accuracy and honesty of the respondent within their answers, which cannot be guaranteed. Some participants had to be prompted to catch up on missed diary entries at times, which would likely have resulted in some influence upon the accuracy of those entries. These measures also rely

on participants completing them to the best of their ability and taking the time to consider their completion of each individual form without developing habitual responses, again which cannot be guaranteed. The results obtained from the diary data may therefore have been affected by social desirability. To alleviate or minimise the potential for this to occur, participants were informed that their responses were confidential and anonymous, and it was also reiterated to them that there was no right or wrong, nor expected answers. The researcher also engaged in frequent but not overbearing contact with the participants and expressed gratitude for their prolonged participation to develop the quality of the relationship with the athletes. Again, this limitation is acknowledged as a point but may not have made much difference considering the aim was to understand the athletes' stories.

### **6.5 Conclusion**

In conclusion, the current section of the thesis adds to previous literature as it is the first to explore the narrative of the well-being – performance relationship longitudinally, according to elite athletes across multiple time points. The present study recognised that the general narrative that emerged (i.e. one of perceived complexity in the relationship) remained similar to the overall narrative identified in earlier studies within the thesis, indicating that both one-off and repeated examination provided parallel stories. A key finding of this study was that some views within the narrative may change over-time and that this may have initiated following the introduction of frequent self-monitoring, which may have increased self-awareness and consciousness to athletes' own experiences and behaviours. The current study added knowledge to the balance thread of the narratives in two ways, (1) by illustrating that the struggle to manage sport alongside life demands reoccurred frequently across multiple time points, suggesting it remains to be a consistent problem for athletes, and (2) highlighting that where athletes struggled to balance and manage their demands, not only were there performance consequences, but there were also potential added risks to their health and safety (e.g. a car accident) in some instances. The study also identified that where athletes implemented coping strategies to perform with low-well-being, their mental approach manifested in different forms, predominantly through the presentation of positive opportunities that evoked an emotional motivational response conducive for performance. Similar methods of coping were employed consistently by athletes over time, despite enduring individual experiences and situations. As illustrated by athletes' narratives at the individual level, a further key finding of the current study was that the well-being – performance relationship is highly individual and circumstantial, which is why it is considered problematic to explain. Part of this related to athletes' forced responses to particular environmental demands that were personal

and varied across individuals, and some of these demands were inherent within the characteristics and requirements of their sport. The idiographic nature of the relationship according to athletes' narratives indicated that there may actually be individual zones of optimal well-being for each athlete to perform. The narratives also highlighted that the well-being – performance relationship can occur in bi-directional forms. Both general well-being and sport-related well-being were considered useful to athletes' navigation of the relationship at different times, with general well-being specifically because it could often account for athletes' positive responses or reactions when presented with negative events or occurrences in their sport. A final key finding from this study was from the quantitative diary data highlighting that each individual demonstrated (consistent or inconsistent) theoretically positive or negative profiles and so presented with their own *norms* when it came to the values reflecting their general well-being and training quality. Awareness of these types of profiles helped to provide insight for the athletes' narratives, and these processes are also suggested to offer implications for applied practice and intervention support. The current study findings will be considered alongside findings from the rest of the thesis through the general discussion, the next section of the thesis.

### 6.6 Thesis Study Map: Study Four

Study	Objectives & Key Findings
<p>Study One: A systematic review of the relationship between well-being and sport performance in competitive athletes</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Systematically analyse the previously conducted quantitative research regarding the relationship between well-being and sport performance to reveal the current state of the literature in this area</li> <li>• To obtain a quantifiable indication of the relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Overall dearth of quantitative studies, limited to only 7 (of moderate quality) matching inclusion criteria</li> <li>• Mixed support for a relationship with inconclusive and varied evidence</li> <li>• Range of correlations reported: significant/non- significant, weak/moderate/strong, positive/negative, no correlation, making a consensus statement regarding the relationship between well-being and sport performance difficult</li> </ul>
<p>Study Two: Elite athletes' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Examine elite athletes' narratives and stories of the relationship between well-being and sport performance constructed through their perceptions and personal experiences.</li> <li>• Identify key factors considered to have a contributing role within the well-being – performance relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Athletes perceive the well-being and sport performance relationship is complex illustrated by the emergence of multiple different types of interactions</li> <li>• Life balance and the management of demands within life domains play key roles in the relationship because they are considered fundamental for well-being</li> <li>• Personal roles acted as resources to sustain and restore balance and well-being, which indirectly provided athletic benefits</li> <li>• Support network plays key role in the facilitation of balance and particular members have particular roles in facilitating the relationship</li> <li>• Coping strategies to create an appropriate mind-set appeared more important for performance than actual well-being state</li> <li>• Individuality accounted for personal differences and was significant within relationship</li> </ul>
<p>Study Three: Practitioners' perceptions and experiences of the relationship between well-being and sport performance: a thematic narrative analysis</p>	<p>Objectives:</p> <ul style="list-style-type: none"> <li>• Examine sport practitioners' narratives and stories of the relationship between well-being and sport performance constructed through their perceptions and personal experiences with their athlete clients</li> </ul>

	<ul style="list-style-type: none"> <li>• Identify key factors considered to have a contributing role within the well-being – performance relationship</li> </ul> <p>Key Findings</p> <ul style="list-style-type: none"> <li>• Practitioners perceive the well-being and sport performance relationship is complicated, intricate, and non-direct, as well-being can influence the probability of, but does not determine, performance</li> <li>• An athletes’ capacity to cope with and manage the competing demands and challenges presenting within their personal situation appeared more relevant and critical to performance than current well-being state, according to practitioners</li> <li>• Adoption of roles within different life domains was highlighted as central to coping</li> <li>• Sport environment and culture was considered significant within the relationship because of the influence upon the way well-being was approached and treated</li> <li>• Practitioners assumed responsibility for their own roles in facilitating athletes to cope with their well-being and their navigation of the relationship</li> <li>• Individuality was suggested to account for variation within the relationship, specifically individual resilience, self-awareness, and appraisal</li> </ul>
<p><b>Study Four: Longitudinal examination of elite athlete experiences of the relationship between well-being and sport performance: a mixed methods investigation</b></p>	<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Track elite athletes’ narratives about the relationship between well-being and both training and sport performance quality longitudinally, to identify change or development in the narratives.</li> <li>• Identify key factors considered to have a contributing role within the well-being – performance relationship via the presentation of single cases to highlight individual context</li> </ul> <p><b>Key Findings:</b></p> <ul style="list-style-type: none"> <li>• Athletes’ longitudinal narratives presented as complicated overall due to both the straightforward and more complex interactions experienced.</li> <li>• The narrative remained predominantly consistent over time with some variation in the stability of the narrative told because of fluctuations in the particular nature of experiences.</li> <li>• Athletes indicated perceptions of a consistent and repeated struggle to balance and manage multiple life domains over time, where risks to safety occurred when they were overwhelmed by their demands.</li> <li>• A similar range of coping strategies (e.g. compartmentalisation) were applied consistently across time despite a range of different contextual experiences.</li> <li>• The relationship was also perceived to be influenced by athletes being forced to respond to particular environmental demands, with some specific to the characteristics and requirements of the sport (e.g. weight-making in boxing).</li> <li>• The narratives presented the relationship in a bi-directional form, with the sport domain also considered to prevent athletes’ well-being from reaching significant lows</li> </ul>

## **Chapter Seven**

### **General Discussion and Conclusions**

## 7.1 General Overview of Thesis and Results

This purpose of the research within this thesis was to explore perceptions, from multiple sources including athletes and sport practitioners, regarding the relationship between well-being and sport performance in an elite performance context, a previously under-investigated story in the academic sporting literature. Adopting a predominantly narrative approach allowed a unique insight into the lives of groups of performance athletes affording a deep understanding of their experience of the relationship from their own, first-hand perspective, and also through the lens of elite support staff. Prior to this series of studies, existing research has failed to explore the well-being – performance relationship explicitly and instead sought to examine well-being generally within the sport domain (e.g. Brady & Shambrook, 2003; Lundqvist & Sandin, 2014), individual *aspects* of well-being and their association with performance (e.g. Uphill et al., 2014; Rathschlag & Memmert, 2015), or lifestyle factors characteristic of high-level performance (e.g. Douglas & Carless, 2006). While this has increased understanding, it is argued that focusing overtly on exploring the relationship, and how it is storied and occurs for athletes according to the interpretations of different cohorts, would enhance knowledge by illustrating an insight into the complexity of the experience. The purpose of the following chapter is to present an overview of the key findings of the current thesis by reviewing the themes that arose from the data analysis. Resulting from a culmination of evidence within these findings, a proposed framework for understanding the well-being – performance relationship has been constructed to reflect an integration of the studies throughout the PhD (see figure 7.1). Following this, strengths and considerations of the overall thesis will be discussed, and the applied implications for practice, along with future research directions will be presented.

To achieve the primary purpose of the thesis, there were five aims. The first aim of the thesis was to systematically examine the previous quantitative research regarding the relationship between well-being and sport performance for a quantifiable indication of the interaction. Whilst the primary focus of the thesis was not specifically interested in determining a correlational strength or exploring the relationship numerically, familiarisation with the state of the relationship quantitatively was considered to facilitate the emergence of a baseline of understanding of the relationship, when approaching it more in-depth, qualitatively. Study one of the current thesis contributed to this aim through a systematic review.

The second aim of the thesis was to examine elite athletes' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their experiences of the interaction, and factors considered influential within it. Despite a substantial amount of research exploring well-being and well-being associated



factors within sport (e.g. Lundqvist, 2011), there was a lack of literature explicitly examining the details of the relationship of well-being and sport performance, and only a small number of studies considering this relationship numerically (see systematic review in chapter three). Study two contributed to this aim with the inclusion of cross-sectional interviews with elite athletes. By exploring how elite athletes storied their well-being – performance experiences retrospectively, it was possible to identify the different types of interactions they perceived they had experienced, and the elements they considered significant within the relationship.

The third aim of the thesis was to examine sport practitioners' narratives of the relationship between well-being and sport performance, with regard to their descriptions and perceptions surrounding their athlete clients' experiences of the interaction, and factors considered influential within it. No research had examined practitioners' views and their narratives regarding the interrelation of well-being and sport performance. Study three contributed to this aim by implementing cross-sectional interviews with sports practitioners, namely sport psychologists, and performance lifestyle advisors or personal development and welfare officers.

The fourth aim of the thesis was to track elite athletes' narratives about the relationship between well-being and sport performance over time, identifying development of these narratives longitudinally, and highlighting factors considered influential within the interaction. Study four contributed to this aim through the longitudinal interviewing of athletes, three times over six-to-eight months. Interview data was supplemented with reflections and quantitative measures of well-being and training variables. The supplemental data helped sensitise the researcher to issues to be discussed in interviews. Longitudinal studies focused on well-being in sport are a minority (e.g. Kipp & Weiss, 2015; Stebbings, Taylor & Spray, 2015) and there are currently no studies that have explored perceptions of the experiences of the well-being – performance relationship longitudinally. By conducting longitudinal research, it became possible to evaluate changes over time and appraise processes associated with these changes (e.g. Holland, Thomson, & Henderson, 2006).

The final aim of the thesis was to extend available knowledge on well-being and sport performance in a competitive sport context generally. A developed understanding of well-being in elite athletes was considered useful to ascertain potentially challenging and encouraging aspects of competitive sport that may influence their functioning as humans and athletes (Lundqvist, 2011). By exploring the perceived experiences of athletes, this may help the relevant members within multidisciplinary support teams to implement better informed, more appropriate support when assisting athletes to navigate this relationship between their well-

being and performance, facilitating them to make more effective decisions throughout the process in the future. By advancing available knowledge in this area, it was thought that this would help to enable the maximisation of support and thus the career potential of elite competitors. Each of the four studies within the current thesis contributed to this aim through either review or empirical study.

## **7.2 Main Findings Contributing to a Proposed Model**

The main findings of the thesis that contributed to a proposed model of the narrative of the well-being – performance relationship, and the factors found to be associated with the relationship, will be discussed briefly in the following paragraphs. To summarise the culmination of evidence that emerged within the PhD, figure 7.1 presents an overall integration of the major findings from study two, three and four within a summary model. The proposed framework that arose out of the PhD outlines a number of interrelated factors identified within the data analysis of the thesis that are considered influential to the well-being – performance relationship. Each study within the thesis has built towards the development of this proposed framework, which offers a first attempt at a conceptual depiction of the perceived relationship and makes a contribution to the literature. The framework integrates the findings of the three narrative empirical studies whilst representing the complicated nature of the interaction uncovered throughout the whole thesis. The framework was created at the temporal conclusion of the research process and illustrates the general thoughts and assumptions about the well-being – performance relationship narratives as a result of conducting all of the research and consolidating the results as a whole. The key findings under each level of the framework are now presented.

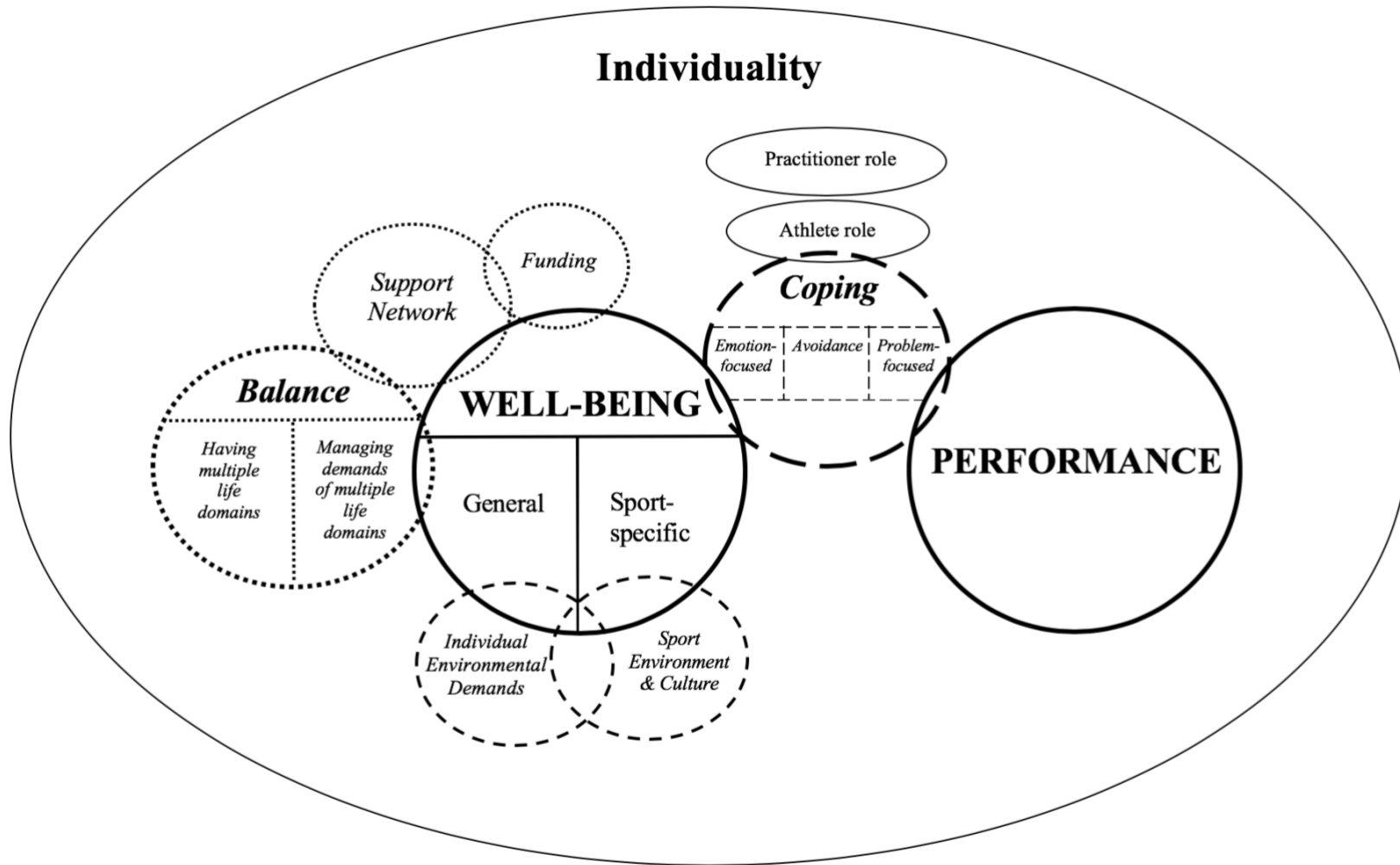


Figure 7.1. A proposed illustrative framework of the perceived relationship between well-being and sport performance.

### 7.2.1 Balance

Balance recognises athletes have multiple life domains that they have to manage for particular reasons. Throughout the current thesis, balance was at the foundation of the narratives of the well-being – performance relationship, as it was a feature considered to indirectly affect performance through its fundamental influence on well-being. Balance represented two ideas. Firstly, athletes *having* multiple life domains to engage in (namely, sport and non-sport) was thought to provide opportunities to sustain or re-establish well-being under different circumstances. For example, athletes and practitioners suggested non-sport domains could offer opportunities to “*escape*” from sport, which parallels previous work of Kruyt (2017) who also noted studying as a good way to switch off from sport. Reinforcing Pink et al.’s (2015) finding that life balance is conducive for well-being and extending beyond his suggestion that time spent in alternative activities has a neutral effect on sport engagement, the current thesis findings suggest that holistic development and having a balance across different life domains has direct benefits for athlete well-being and indirect advantages for performance. In light of these findings, it can be hypothesised that educating athletes, and perhaps more importantly coaches, of these encouraging results, may promote opportunities for both personal and athletic returns for athletes in future.

Secondly, athletes’ ability to balance and manage the demands associated with their multiple life domains effectively, was thought to affect their well-being and subsequently performance. The notion of balancing multiple life domains is a known concept that has been established in earlier research (e.g. Pink et al., 2015) and the current work builds on this by suggesting balancing different areas of life is significant within the interrelation of well-being and sport performance. The current findings also mark an important contribution to the literature by way of illustration of what it is like to live and manage these multiple life domains. Athletes have previously indicated the challenge of managing several parts of their life with their sport in single retrospective interviews (e.g. Douglas & Carless, 2006). This thesis supports those findings but has also shown how these lived experiences fluctuate over time by using other methods to illustrate and explore these challenges. It is shown here that athletes function in different situations and under different circumstances, and where the load of their life demands were controlled accordingly with the demands of their training or their competitive schedule, successful performances were often promoted. Arising from study four, the challenge of balancing and effectively managing life and sport emerged consistently over time within athletes’ narratives, highlighting this as a continual struggle they have to contend with. The study provides an insight into what high level athletes are faced with day-to-day in

terms of the management of themselves as athletes and as ordinary people. Additionally, to note, where athletes became overwhelmed with the demands they were facing, there was potential for them to reach points where risks to general health and safety were also present, highlighting the significance of balance also in a protective sense. The current findings of the thesis indicated that balance was often perceived to be influenced by the support network, the next level of the framework.

### **7.2.2 Support Network**

Across the thesis, the support network was suggested by athletes and practitioners as a positive regulator within their stories of the well-being – performance relationship because it was considered to assist athletes to balance and manage their lives, supporting previous work (e.g. Amirault & Orlick, 1999). It is acknowledged that this reference to earlier research is dated yet findings remain relevant to the present day over two decades later. Building on previous work, the current thesis suggests the support network promotes competitive success through increasing resources for athletes to navigate and even thrive on challenges that may influence their well-being, and so reducing or removing certain stresses, enabling their full attention and focus towards their performance to be prioritised. The capacity for athletes to manage the various domains of their lives and be successful in their sport was at times considered to be shaped by certain stakeholders in their support network, such as family and friends, coaches, and multidisciplinary sport science staff, who each were perceived to fulfil particular roles (e.g. tangible and emotional supportive roles of family members). Both sport and non-sport related supportive members were identified within the narratives as having significant roles in the relationship. A key finding from the thesis was that each athlete's support network was different in terms of how broad or close-knit it was, and what types of supporters comprised their network. Differences in the composition of the network related to both access/availability of certain support and utilisation of available support where necessary, suggesting the application of the network could be considered both proactive and reactive. Funding was highlighted as a factor that could account for some variation in athletes' support systems, the following level in the framework.

### **7.2.3 Funding**

Athletes in study two and four of the current thesis highlighted the role that funding has within the narrative of the well-being – performance relationship, because of the resources and provisions available in terms of a broader support network for athletes. Knowledge of the effects of funding is fairly standard in terms of the moderation or resolution of issues when it is available, and the creation or prevalence of issues when it is not, with funded athletes deemed

to be in superior positions for performance because of access to certain services and resources (e.g. Poucher, 2017). Whilst recognising the potential benefits, privileges and reduced pressures, the current thesis also acknowledged that despite funding, athletes may still experience negative life events and issues that can evoke low well-being and subsequently poor performances. The thesis also highlighted the negative impact upon well-being that can occur when funding ceases. This result is important so that athletes can accept that well-being is something that may need to be consistently nurtured irrespective of outside or external provisions, advocating the potential benefits of repeat discussions, such as those included within study four of the thesis. If athletes are aware that the ruthless nature of the funding system means funding related income and resources can be withdrawn with immediate effect, they can be more attuned to anticipate and prepare for such events.

#### **7.2.4 Sport Environment and Culture**

Studies three and four of the current thesis were among the first to propose the sport environment as significant within the well-being – performance relationship narrative, with study three also acknowledging the influence of the sporting culture. The sport environment was suggested as key because of how its dynamics can influence athletes' well-being in the sport domain (e.g. relationships with coaches and teammates, stresses associated with sporting roles, the atmosphere within the sport setting, and adverse sporting events). Where the sport environment was seen to offer a facilitative and positive setting for athletes to engage and operate in, this was considered to provide performance opportunities regardless of any issues going on outside of the sport, because well-being was present in the sport milieu. Equally, where the sport environment was seen as negative and presented as an undesirable place for athletes to function in, they were unlikely to perform even with good outside well-being in general, because their well-being in the sport setting was absent. Athletes recognised the implications of their sport environment for well-being and performance. Practitioners perceived they had some accountability and their own personal role in fostering and developing this constructive sport environment for athletes to feel a part of to enable performances. The sport culture was also highlighted as central to the relationship because of the influence it has upon resources and services available for and invested into well-being, supporting previous work (Dunn, 2014). Extending knowledge, culture was highlighted within the relationship by practitioners also because of the variation that can occur across sports cultures in the emphasis and value placed on well-being, and the presence or absence of an expectation for athletes to develop and nurture it. The difference in the recognition and approach taken towards athletes' well-being externally and culturally was considered to affect athletes' responses to dealing with

or managing their own well-being, through awareness, but also whether they felt comfortable and supported to do so. This section of the proposed framework indicates generally that the sport setting is perceived as having a strong impact on well-being in the sport domain, advocating that, in support of the Culture Health Check report, UK Sport (2018), there remains progress to be made in terms of exploring and addressing this environment and culture as a whole to improve how it approaches and influences well-being.

### **7.2.5 Individual Environmental Demands**

Across the empirical sections of the thesis, the narratives have illustrated *how* athletes experience the intricacies of the well-being – performance relationship is individual, because it is dependent upon personal circumstances, and exposure to particular situations and distinct challenges. Athletes storied how the well-being – performance relationship was influenced by their experiences of being forced to respond to particular environmental demands personal to them. Different environmental demands emerged for each athlete (e.g. managing life domains, funding cessation, weight-making pressures, transitions across cultures or domains), meaning that the well-being – performance relationship was navigated under these conditions. Despite athletes facing different situational factors, their general narrative regarding the complexity of the well-being and performance relationship, and how the interrelation of these facets was dealt with, was comparable across the thesis. These environmental demands originated in general life and also within the sport context. This level of the framework offers a more novel idea and advances knowledge by highlighting that athletes' experiences of the well-being – performance relationship can be influenced by, and reflective of, pressures or demands specifically inherent within a certain sport. The identification that perhaps well-being and its subsequent impact on performance is affected by the type, characteristics, and requirements of a particular sport, suggests that support staff may need to shape and adapt their services to offer customised programmes appropriate and effective for specific features of a sport. Environmental demands derived from the sport shares links with sport-specific well-being in the next level of the framework.

### **7.2.6 Well-being: General and Sport Specific**

The three empirical study chapters illustrated that having a good foundation of well-being was often considered facilitative for athletic performance, and where athletes lacked in well-being, their performances often suffered. Athletes and practitioners across the thesis identified that well-being appeared to occur in two contexts for athletes: well-being in general life and well-being within the sport domain. Well-being in general life represented how an athlete was feeling and functioning generally as a person within the world and well-being in

sport reflected how they were feeling and functioning within the sport context. Both types of well-being were considered to influence performance within the narratives at times. General well-being was perceived as important in the relationship, as a foundation to promote performance and to protect against sport-related issues, supporting Lundqvist and Sandin (2014). Advancing Lundqvist and Sandin's (2014) work, sport-specific well-being was perceived as important in the relationship in the current thesis because it was also able to buffer against general well-being concerns outside sport and allow performances to occur regardless. Essentially each form of well-being was perceived to be able to counteract issues within the other form to enable performances to be successful. The thesis has not offered a definition of sport-specific well-being, but rather has identified the notion that features within the sport domain can affect athletes' well-being in debilitating or facilitative ways and act upon them whilst they are within that environment. Study four indicated that having well-being within sport could actually at times be perceived as more critical for performance than the necessity for general well-being, which adds emphasis to the importance of constructive sport environments that allow athletes to thrive in the sport domain regardless of what is going on in their outside lives.

Although this level of the framework has identified the two types of well-being that athletes have experienced in their narratives, referring back to the level of environmental demands, the thesis proposes that actually it might not just be well-being in sport, but well-being within each individual sport is something that is important to consider. Whilst there has been some insight into well-being derived from the sport setting (Lundqvist & Sandin, 2014), this section of the framework relating to the potential for well-being to be affected specifically in-line with attributes or features of the particular sport is more opaque. The emergence of this underdeveloped area is something that the current thesis has begun to shine a light on that hints at the suggestion that perhaps athletes should not all be targeted with the same general, one size fits all, performance lifestyle support methods, but rather the ways in which athletes in different sports are supported may need to vary according to the needs and demands of that sport. Despite the fundamental idea and need for well-being (in general or within the sport setting), for performance within the narratives, it was not always necessary or essential for performance, which leads to the next level of the framework, coping.

### **7.2.7 Coping**

Analysis led to the cross-sectional and longitudinal identification of coping as a crucial feature within the well-being – performance relationship narrative. The current thesis is the first to identify the coping process of athletes in the stories of their navigation between their



well-being and sport performance. Participants across the thesis identified a number of coping strategies utilised to manage the interaction. These coping strategies were perceived as an imperative part of the process because they allowed athletes to obtain positive performance outcomes irrespective of concerns within their well-being, highlighting that they perceived that well-being is not always essential to perform. The coping level of the framework represents how athletes perceived that low well-being may not actually determine negative performance outcomes with the application of particular strategies that help to create an appropriate performance state. A less established, but nonetheless key part of this aspect, was the application of facilitative strategies even when well-being was higher, as these still assisted in creating advantageous performance approaches. Although athletes framed much of their coping strategies through an optimal mind-set narrative, the types of strategies identified appeared consistent in their identification by both athletes and practitioners, and on single occasions and across multiple time points. Consistency was evident in the strategies irrespective of the fact athletes underwent their own individual experiences across the studies. Findings illustrated a range of emotion-focused, avoidance and problem-focused strategies. The form of coping mechanism applied appeared dependent upon the timing of its application or the temporal proximity of the performance, advancing knowledge about the coping process within the relationship. For example, often it appeared emotion-focused or avoidance strategies were applied as a temporary measure to *get through* an immediate performance, whereas problem-focused methods were applied when the athlete had time to *work through* their issues as longer-term solutions. Participants adopted coping strategies such as compartmentalisation or blocking out issues and distractions, re-framing negative circumstances with a positive approach and outlook, use of negative emotion as motivation, ceasing opportunities that present themselves despite negative situations, role adoption, and seeking support. The coping process comprises of cognitive appraisals that shape and form coping responses, which in turn influence on-going appraisals (Lazarus 2000, 1999). The thesis has argued that the ability of an athlete to positively appraise issues they are facing in their well-being, or their ability to activate coping mechanisms, can act as a buffer to the impact of these on performance. Individual characteristics (the next level of the framework) such as personal perspective and self-awareness were imperative to this process.

### **7.2.8 Characteristics of the individual**

The empirical studies within the thesis illustrated that the characteristics of the individual athlete play a key role in the narrative of the well-being – performance relationship. Individual variation in athletes needs to be accounted for when considering how well they will

manage the interaction of their well-being and sport performance and how to support them in the most suitable and effective way. For example, because of differences in athletes' backgrounds, past experiences, and skill sets, they may respond differently to the demands placed upon them within their well-being, which is then likely to shape the ways that performance is influenced. Some athletes may deal better when well-being issues arise, and others may catastrophise their circumstances, illustrating the potential for individual optimal zones of well-being for performance, akin to the concept of IZOF (Hanin, 1995; Ruiz et al., 2017). One athlete may perceive certain levels and circumstances of well-being positively, whereas the next athlete may distinguish these same circumstances negatively. The thesis model encompasses this notion of individual variation among athletes, which could influence how successfully they cope with the relationship of well-being and performance. Characteristics such as: interpersonal qualities, adversity coping, mental toughness, coping skills, coping style, background, life experiences, self-awareness, resilience through exposure to adversity, appraisal or evaluation, and knowledge of how to look after themselves, were evident throughout the narratives in the thesis. In light of these findings it may be hypothesised that if those providing support (e.g., coaches, sport psychologists etc.) better understand that there are individual demands that athletes associate with their well-being, and they possess their own unique set of skills as a result of their past experiences, the supporters may be able to provide better support through targeting and managing the specific difficulties experienced, and utilising appropriate characteristics where possible.

### **7.2.9 Athlete Role and Practitioner Role**

Athletes and practitioners across the thesis perceived they each had their own roles in shaping the interaction of well-being and performance, as they were either responsible for possessing (athletes) or assisting the development of (practitioners) facilitative individual characteristics that may influence how athletes cope with well-being issues whilst performing. Throughout the current thesis it was acknowledged that athletes assumed an active responsibility for regulating the relationship between well-being and performance through their application of different behaviours and self-adoption of strategies to stimulate a mental state conducive for performance, irrespective of their well-being state. Athletes appeared to present themselves as accountable when navigating the relationship, by explaining their experiences in terms of actions they either did, or did not, undertake. As well as the athletes' role, practitioners were also considered (by themselves and by athletes) to affect the relationship to some extent across the thesis, through their potential to influence the sporting environment that athletes operate in, their scope and responsibility for shaping and developing the coping resources of

their athlete clients, and fulfilling supportive roles within athletes' support networks. The thesis proposes that both athletes and practitioners can do a multitude of things to nurture a sense of control for athletes when well-being and performance interact, illustrating that their roles can affect multiple layers and levels of the framework.

### **7.2.10 Performance**

Although the thesis approached the exploration of the perceived well-being – performance relationship from a particular stance (i.e. whether and how well-being affects performance), from the study findings the framework advocates that the narrative of the well-being – performance relationship reflects a circular interaction. This highlights that the thesis supports previous suggestions that well-being and performance are considered as complementary goals that exert bidirectional influence on each other (Costa, 2017). Participation in the sport role was perceived to prevent low well-being from becoming even lower, and created more stable well-being improvements, which is consistent with previous literature (Ruseski, Humphreys, Hallman, Wicker & Breuer, 2014). Narratives also reflected that successful sporting performances often resulted in higher well-being, and lower well-being emerged with unsuccessful performances, also supporting earlier work (Frey & Stutzer, 2010).

### **7.3 Towards an overarching understanding of the perceived relationship between well-being and sport performance**

An empirically-based theoretical contribution has emerged as an outcome of the current research and has inspired proposal of the first indication of an integrative framework. The framework depicts the perceived experience of the well-being – performance relationship in high-level sport, and has been offered for the utilisation of athletes, coaches, practitioners and other key athlete support personnel. This original contribution to the literature by way of the framework encapsulates aspects, according to the thesis data, that are considered to be contributors within the relationship that are all perceived to have an impact in positive or negative ways depending on their presence or absence, or the extent of their application. The outcomes of the thesis have culminated and provided evidence to therefore offer a model to illustrate an understanding of the perceived process athletes undergo when they are responding to an experience where well-being and performance interact. While this framework has been offered, the parameters of its application are acknowledged through recognition that it is only a proposed model, which summarises and reflects the interpretations of the data within the thesis. As the framework is a first iteration, its relevance and application will require further research. The framework will need to be explored and challenged further to test its utility by

using greater sample numbers and investigating its application in other sports to cover a wider range of experiences.

Initially the current research has uncovered that there is little known currently about what the well-being – performance relationship is, quantitatively, because the examination of it was limited (see systematic review in chapter three). Although limited, the variation in this literature primarily suggested intricacy within the relationship as mixed evidence emerged. The thesis was then able to build on these somewhat restricted conclusions and through the integrated model offers insight into why these original interpretations demonstrated inconsistency. Previously, there had been an adoption of a simplistic, correlational view in the quantitative literature, where changes in well-being leads to changes in performance. What this research had not addressed, which is highlighted in the integrated model, is that when elite athletes and supporters story this relationship, it does not reflect an interaction of well-being and performance alone. Actually, there are a combination of intervening and confounding variables involved that mean it is not a straight forward or simplistic relationship. The current thesis reveals assumptions that well-being can be linked to performance, however overall the main findings indicate primarily that the relationship between well-being and sport performance is considered intricate, complex, and also multifaceted as illustrated by each of the four studies. Interpretations illustrate that the relationship can be experienced by athletes in a straightforward way whereby the levels of well-being and performance coincide i.e. higher well-being would yield better performance, or a complex manner, where well-being state differs to that of performance. Within this thesis, well-being emerged as an element that is considered *important* but *not imperative* for performance. To have well-being appeared to be both preferential and desirable because it can often facilitate performance-ready states, but not always an essential component for sport performance. What is perceived as key in the well-being – performance relationship, is that by which athletes negotiate and cope with what is happening in their lives more broadly and in their sport lives, and their ability to do this is affected by certain external or environmental factors, as well as the characteristics and skill-set they possess. Irrespective of whether these life aspects are positive or negative, where athletes are effectively managing the contribution of these, then performance success appears possible. The current thesis findings add depth to the understanding of the well-being – performance relationship that to date had not been elicited and provide detail that may help athletes and those leading and supporting them to better understand what goes on within this process. Previous qualitative research had identified the significance of relationships, support and balance within lifestyle factors or elements characteristic of successful performance (e.g.

Douglas & Carless, 2006; Greenleaf et al., 2001; Gould et al., 1999;). The current PhD findings and framework make knowledge contributions by highlighting that the relationship appears as a much more complex phenomenon, and identifying numerous additional features considered to contribute to the relationship, such as: funding, the sport environment and culture, individual environmental demands, coping, the characteristics of the individual, practitioners, and athletes themselves. As a result of identifying and thus increasing awareness of the potential aspects that are considered to influence the relationship, it may now be possible to target these areas for development and improvement to enable an improved support service for elite athletes navigating this relationship in the future. The practicality and value of this support may be measured through the application of a monitoring tool as an indication of whether any performance improvements have occurred alongside the targeting of the development of these variables. These suggestions may need to be tested in future research.

The thesis framework provides some substance for, and indication of, how this relationship is described by elite athletes and support personnel. Athletes expressed their views on the relationship both cross-sectionally and longitudinally, with similar insights and features emerging through both approaches. Practitioners also reported their interpretations of the relationship, highlighting some resemblances with those of the athletes, but also illustrating some slight nuances in their views. The thesis demonstrated that the way the relationship was perceived appeared to be influenced to some degree by whose perspective was being considered, but that there is also some consistency across different cohorts. It may be postulated that these differences may have occurred as a result of the diverse experiences had by each cohort and their varied exposure to training, education and practical knowledge about well-being. Another suggestion is that it is possible practitioners are keen to feel like they are doing their job well and so tell a story that allows them to believe they are both needed by athletes and are competent in their role, hence the emphasis on their involvement and responsibilities within the relationship. The thesis process has provided the means to capture this and this indication of role self-reinforcement has been considered and inspired in the model. These ideas surrounding the possible motivations behind the narratives are merely suggestions and could be tested and examined in future research. With consideration for the findings from all of the empirical studies in the thesis, the framework advances knowledge by illustrating an integrated view of the presentation of both athletes' and practitioners' narratives about the relationship between well-being and sport performance to offer a synthesised summary representation of the perceived interaction of these two constructs. Because findings have been largely similar across the thesis, with the application of different methods, and across different

cohorts of participants, there can be an increased confidence that these aspects are important to the relationship, meaning future support and intervention may be much more well informed.

The thesis as a whole, reveals how individuals have *unique experiences* of the well-being – performance relationship and how each person has a different story to tell in terms of personal and contextual situations and circumstances. Although the findings also suggest that there are elements of the relationship experience that are transferable across the stories of the athletic experience, the current work advocates that a lot of it is individualistic and perhaps cannot be represented in that of a ‘neat and tidy linear model’. The framework presents as somewhat chaotic and this is likely because each level of the framework will exist and develop differently for every person, highlighting why the experience of this relationship between well-being and performance can be so individualised. At this moment in time the strength of the relationship, and the actual existence of the relationship remains unknown because there are so many factors that might influence the utility of the model to a particular individual. The current thesis offers a first iteration of a suggested model that requires consideration, exploration, and in due course, testing. It is recognised that this may not be the only model of the narrative that exists. Challenging the value and relevance of this model, along with its feasibility and reach, is something that may need to be done in the future.

The current thesis has indicated that the implementation and evaluation of well-being monitoring throughout athletic careers may be important. The integrative framework emerging from the findings of the thesis may stimulate, in due course, the development of a monitoring tool for sport psychologists and performance lifestyle advisors. This may be applicable to use for mapping and managing well-being and performance interactions. The levels identified within the thesis framework may act to inform the foundations of what might be included in such monitoring tools. The processes by which this framework was able to emerge, such as conversations and the telling of narratives, may also act to inform ways in which athletes and practitioners can work through the levels within the model. Support personnel may audit their athlete clients within the areas highlighted in the current model in an attempt to provide customised support for the navigation of this complicated relationship.

This multifaceted package includes proposed target areas for practitioners to address when supporting their athletes in navigating this relationship. This may induce benefits for athletes in terms of increased self-awareness and sensitisation to their own experiences and behaviours and may allow practitioners to become more accustomed to their athletes and their needs. If support personnel are better equipped at detecting issues within their athletes’ well-

being, the chance of filtration into performance may be minimised, as well as the reduced risk of athletes developing mental health issues from prolonged exposure to stressful situations.

The multifaceted tool elicited from the current thesis and framework may include:

- *An athlete well-being diary* – to map well-being levels regularly to establish norms, increase awareness of instances where athletes move outside of their typical profiles, learn what each individual athlete considers a significant change within their profile, and identify consistency or inconsistency of fluctuations within these profiles. These diaries may help to ascertain periods of concern or indicate that an intervention or support is needed to help them to restore back to their normal well-being levels. Such well-being profiles may facilitate athletes in maximising their well-being by increasing the efficiency with which fluctuations are prepared for and responded to by themselves and those that support them. Well-being diaries may be implemented in a similar form to that of the diaries within the thesis, incorporating: (1) a short well-being questionnaire, and (2) opportunities for supplementary comments to expand on particular details or events. Athletes might be required to fill these in at regular and consistent intervals, via an easily accessible (private) online submission or app that can be accessed from a mobile phone on the move. Data provided within these diaries may be used to inform regular reflective discussions with practitioners, either face-to-face or over the phone.
- *Regular reflective discussions* – to process and address experiences around well-being in a structured and confidential capacity, with relevant practitioners perhaps with the appropriate training in the application of counselling type approaches.
- *Mapping of periods of higher and lower pre-empted stress and demands* – to anticipate the effects these demands may have for well-being and performance in advance and develop and prepare strategies to manage these periods. Mapping competition and training schedules of particular sports and assess how these may interact with the demands of athletes' other life domains e.g. academic, employment. Within the current thesis information on training and competition schedules and periods of increased education/employment demands were obtained to inform the approach of discussion and further probing surrounding these times. However, no intervention was applied to manage these instances, which is what is being suggested here.
- *Fostering coping strategies* – identify coping strategies that athletes already competently apply when they are presented with well-being concerns and develop and

practice these to increase their utility. Identification of these strategies may occur within the regular reflective discussions with practitioners. Also assist athletes to formulate and practice applying a range of new problem-focused, emotion-focused and avoidance strategies to build a repertoire of approaches in preparation for a multifaceted array of scenarios.

- *Audit of possible sport-specific well-being issues* – identify and map aspects of the athletes' sport that could have well-being implications from a range of sources and opinions. Implement the identification of aspects at the earliest opportunity following the commencement of work with the athlete. Coaches or former athletes in the named sport may be able to facilitate these audits as a result of their own experiences. Educate the athlete about the features identified. Consider any additional support that may be offered to support these specific issues e.g. additional emotional support and guidance, as well as practical nutrition support to manage energy levels in weight-making sports.
- *Audit of athletes' support network* – identify members of support personnel within athletes' network and establish the roles of each member. This may be done through discussions with the athlete themselves and revisited every so often in case of the event of changes in the support network. Educate supporters on roles they may fulfil that they may be unaware of. Assist athletes in widening their support system to utilise the best people they have around them.
- *Audit of personal characteristics* – assess athletes on different personal characteristics through measurement and discussion, to identify areas they are competent in and perhaps areas they could develop and improve in e.g. resilience may be developed with a mental fortitude programme (Fletcher & Sarkar, 2016). Again the identification of these characteristics should be completed at the earliest opportunity following the commencement of work with the athlete and may be tracked at intervals to assess their development or progression in particular areas of interest.

The monitoring tool foundations derived from the framework and thesis findings may help athletes to obtain some sense of awareness and control over the relationship between their well-being and performance, maximising how they approach it and potentially fostering successful performances. If athletes can be supported in better ways to restore, maintain or even improve their well-being, there is a chance that their performances may reap the rewards associated with this, and athlete retention may increase in high-level sport.

#### **7.4 Thesis Strengths**



A strength of the current thesis is the novel perspective the research took on the area. As the systematic review highlighted that research surrounding the quantitative relationship between well-being and sport performance remains considerably limited, and qualitatively the relationship has not been explicitly examined, the PhD has attempted to address the scarcity of knowledge on this topic. In particular, an exploration of how this relationship is storied by both athletes and practitioners extends understanding of what people perceive the nature of this relationship is and factors that are associated with, and can influence, the relationship. As the quantitative literature established only numerical indications of the existence of a relationship (e.g. Filho et al., 2015; Hogarth et al., 2015; Kalda et al., 2004), the methodologies used within the current thesis, such as narrative analysis and longitudinal collection of data, enabled the essence of the relationship to be captured and provided context and details about intricacies within the relationship in a unique way.

During initial stages of the PhD it was decided that the thesis would approach well-being open-endedly, with no grounding in one particular theoretical framework or model. The open-ended approach was beneficial in so much as it allowed participants' considerations about their experiences not to be restricted to a limited range of specific factors, and emergence of individually identified elements enabled a broad critique of the well-being – sport performance relationship. Although this unstructured approach was also somewhat challenging for the analysis and presentation of the data, it was also considered a strength, as it proved accessible to examine well-being as a multi-faceted and personally constructed concept. A consistent thread of findings emerged with the advantages associated with subjectivity, such as, capturing personal differences.

A further strength of the present PhD research is the use of qualitative methods (e.g. single interviews, repeated interviews, thematic analysis, narrative analysis) throughout the empirical studies. Well-being as a construct lends itself to qualitative approaches because of its multifaceted properties, and as perceptions of its relationship with sport performance are relatively unknown, there was a need to employ means to study this area in depth. Such methods would permit participants to identify contemporary ideas and insights that have not been provided within the previous literature with a sense of depth and detail. The advantages and disadvantages of qualitative and quantitative methods have been deliberated (Patton, 2015). As neither athletes' nor practitioners' experiences of the well-being – performance relationship have been documented previously, the opportunity to originally investigate the subject supported the need for qualitative inquiry as the selected method, affording the recognition of associated factors.

### 7.5 Thesis Methodological Considerations

A potential consideration of the thesis is that the relationship was only explored in relation to high-level performance and elite competitors. The findings may not necessarily be equivalent with non-elite athlete populations, and lower level athletes may not have access and exposure to the types of sports practitioners involved within the study. Although it is acknowledged that the data was collected from a select sample, or groups of people directly associated with this sample, it must be highlighted that the research made use of detailed quotations from participants. Presentation of data also attempted to provide rich description with enough detail to enable the reader to make their own judgements about whether what was discussed could apply to their own situations. Despite this homogenously high-level sample, the research may still transfer and be applicable to other groups of athletes, who may be able to see parallels between the current results and their own experiences through the depth and context offered. Although results may not be directly transferable across levels, the aim of the thesis was to understand elite athletes in depth as they are worth understanding in and of themselves.

Another potential consideration of the research within the thesis is that prior to commencement of the studies, some of the participants were known to the researcher. The fact that I knew these participants (and not others) in some way may have influenced the data collected to some extent. My own background and experiences as an elite athlete, and also as a coach to elite athletes would have also influenced the interaction with the participants. In interview studies, because the data is co-constructed, my biases and own assumptions will have influenced the data collected to a degree. Whilst this may be considered to have induced some bias to the data gleaned, this may also have helped the research process. I possessed a level of understanding and empathy for what the participants were discussing, unique to the fact I had experienced many of the things identified and could appreciate these on a personal level. Because I understood what participants were trying to say and was familiar with much of the elite sport language and dialect, the participants accepted me in this way and I was able to assist them in developing the depth and breadth of their stories. I have also published two research papers (Clowes & Knowles, 2013; Clowes, Lindsay, Fawcett & Knowles, 2015) which have contributed to the development of appropriate skills to reduce and report on such biases.

A further possible consideration of the current thesis was the limited sample sizes throughout the PhD studies. Whilst this may be considered an insufficiency of the research conducted, the intention of the thesis was focused towards gleaning detail and rich description of individuals. Perhaps it may have been beneficial to have gathered larger samples and it is

always possible and is considered useful to collect the maximum amount of data. Additional participants would have likely provided some different data and probably offered some different stories. However, based on everything explored up to this point, additional stories would likely not have changed the fundamental findings emerging from the studies, as the results have displayed a degree of consistency throughout, and there appeared to be enough data to support theoretical saturation. Although smaller samples can be considered a limitation, they can also have benefits, such as allowing the opportunity to explore people in greater depth, therefore gathering deeper understanding of the topic for these participants.

## **7.6 Reflections on the Research Journey**

With consideration for my positionality within the current work and the extent that I as the researcher have been intimately tied to the research process within this thesis, it was considered appropriate to address my journey and reflect on my development throughout the PhD. Considering my own personal reflections following the completion of this body of work seems relevant because it can assist in my identification of parts of the process that pushed me outside of my comfort zone and presented new challenges, but also ways in which I dealt with such difficulties to overcome them and develop. Sharing these reflections with the reader will facilitate their understanding of the research processes more personally and appreciate where particular tasks and experiences were more novel. It also appears timely that I, the researcher, reflect on and share my own experiences to put into practise those methods I have asked of the participants within the thesis.

### **7.6.1 Personal reflections**

Personally, adopting a perspective that situated me closely to the studies within the thesis and accepting that the PhD was essentially a product of my interpretations was a daunting prospect. Throughout the process multiple discussions unfolded with my supervisor where I fundamentally questioned my right to offer my interpretations. At times I felt a lack of authority to state my thoughts, which in a sense left me feeling uncomfortable writing parts of the results as they were only *my* ideas. My initial feelings that my study findings were obvious were a major challenge in the process, however I began to become more assured in the novelty and value of what I was offering as I realised that the findings only appeared obvious to me as they were largely reliant on my own personal interpretations. Over the time of the PhD my insecurities lessened as my supervisor and research team helped me to grow in confidence in accepting that my research *is* subjective. As the research developed I became more accepting that exploring the stories of my participants had value, as when I discussed my findings with other academics and other people with no prior knowledge of this area, these individuals were

genuinely interested in what was emerging and my results sparked some questions and debate amongst others. The subjectivity of my research also alerted me to be more cautious and humble towards my findings, with the realisation that there is a need for similar studies to be replicated and the findings to be explored further, as the results offered are those filtered through me as the research tool. Examining similar areas under the charge of different researchers would allow us to explore the extent to which the results may differ or relate as a result of the researcher's own influences, ideas and ways of operating. I feel that the research journey has caused me to question the standards with which I align myself to and understand more clearly my own perspectives towards knowledge. As a result of the process I now sit more comfortably within the interpretivist paradigm I identified at the start of the thesis, with clear allegiance to both the relativist and constructivist ideals. Where once I was questioning the significance of my body of work, I now feel contented with what I am offering with credence that my findings have value within the literature and within the real world.

The research process has forced me to develop competencies in new areas and has allowed me to advance my research skills as a result. Prior to the start of the PhD, although I had publications of other qualitative research with relatively straightforward approaches, I had not attempted to implement some of the methods used within the current thesis. Previous experience in undertaking cross-sectional, retrospective interviews facilitated those studies of a similar nature in the current work, refining my techniques and expertise within this domain. However, conducting both a systematic review and longitudinal research with multiple, successive interviews to elicit stories were completely new to me as methods of study, indicating growth and development as a researcher. I now have experience and appreciation for what it takes to complete these types of studies and the advantages and difficulties associated with each. Despite experiencing the demanding nature of both study designs for the first time, each were stimulating in terms of the new research experiences, variety of knowledge acquired, and personal development opportunities provided. In light of my PhD thesis, reflecting upon my earlier research completed prior to my doctorate, I feel that despite some of the methods of these studies being somewhat more reductionist and limiting in terms of their procedures and representation techniques, there is still value in their application and these methods were appropriate to capture information to meet the study objectives adequately. Although the methods in my earlier work did not explore participants' experiences on such a deep level, they had set a foundation for me to evolve as a researcher towards the implementation of more advanced qualitative approaches in the current thesis.

Applying narrative analysis techniques for the first time was also a challenge, requiring deeper exploration and reflection on data in a way that I had not attempted before. The need to understand the data in much more depth caused me to personally evolve as a researcher due to the demand for further developed thinking. This more complex level of thinking was unforeseen during the planning stages of the research and due to both the time and labour required to reach a position of clarity regarding the data, I would perhaps advocate that time to contemplate thoughts clearly should be factored in as part of the analysis process for such studies. Although I acknowledge that my subjectivity and experiences have shaped many aspects of the thesis, implementing these methods for the first time also led to the expression of some of my values as a researcher more intensely than before, such as ensuring the participants' voice was heard throughout the thesis. Over the project I developed good relationships with the participants beyond those that were clinical or sought out superficial sources of data and felt a responsibility to deliver their stories authentically as a result. The PhD process required me to engage with new people and explore them in ways new to both of us. My empathy and care to ensure the participants were heard resulted in me being reflexive and adaptable across the research journey. During data collection I re-visited participants to gather their thoughts regarding my interpretations of their stories because it was important to me to feel I had reflected and understood how they understood their lives. During data analysis it became clear that my original decision regarding analysis methods based on 'safe' past experiences of their use was likely to do an injustice to the participants' stories. I responded in terms of altering methods of analysis according to what I saw presenting and emerging within the data to best represent the participant voices and experiences fully, to allow me to produce a PhD with genuine meaning.

### **7.6.2 Practitioner reflections**

As a coach, the thesis journey has also helped me to progress my thinking in the applied environment. Earlier in the thesis I discussed my motivations for this research project regarding my solid beliefs that additional performance lifestyle based knowledge and support would have benefitted me during my time as an athlete. I now have an increased appreciation for the well-being of elite athletes beyond my own experiences and how this may or may not interact with their performance in training and competition. As a coach I feel I can now be more sensitive to and more able to understand my athletes better and in a broader capacity than before completing this research. Having wider knowledge of the factors (of which there may actually be an infinite number) that contribute to this research area allows me to appreciate each individual and their day-to-day challenges at a deeper level, providing an opportunity to offer support to them

should they require and express an interest in this. My awareness of the intricacies of this research area has increased as I have become more educated and familiarised with the ways in which emotions can connect, allowing me to apply what I have learned more within my coaching and navigate particular circumstances better based on my extended knowledge. My behaviours as a coach have altered in some ways over the research journey because it required me to engage with many different people and interact with individuals on different levels. These interactions presented me with the nuances of all the different athletes and practitioners, requiring me to stretch my own skills to meet the diverse needs of each individual and learning to tailor my responses to them in order to differentiate in my reactions. I believe I have taken this into my coaching and applied more individualised practice towards my athletes, attempting to support their distinct needs better. I also believe that engaging in this research alongside coaching has led me to not just coach in the moment but to actively think about what I have been learning within my studies, making connections of how aspects of my research might relate to the athletes I coach and therefore processing and applying the new information I have been exposed to on different levels. When I consider myself as a learner across this journey, as I acquired more knowledge, the opportunity to share and teach some of the ideas I had generated along the way meant that my enthusiasm filtered into my coaching and aspects of what I have learned within the PhD have been tangible to my athletes. The process has required me to grow, learn and step out of my comfort zone facing challenges and adversity along the way, which is something I ask my athletes to do regularly, therefore I feel I have symbolically conducted myself in ways I want them to conduct themselves. Completing the PhD process has further fuelled my ambition to make a difference to those athletes that follow us in the future through either coaching or offering support around the sport through a career in Performance Lifestyle services.

### **7.7 Thesis Practical and Applied Implications**

Throughout the current thesis, practical implications have been presented alongside the findings within the chapters of each individual study. Key implications will be reiterated in the following section, along with an indication of how the current programme of work as a whole may offer practical suggestions that may be of positive value for the experience of the well-being – performance relationship.

First the current thesis demonstrated that well-being and sport performance are perceived to interact in a range of ways, as they can appear linked in some instances, but there also can be occasions where there seems to be a complicated or no apparent connection within the narratives. This finding suggests that athletes may benefit from increased education around

the potential for well-being to influence performance, and in what ways this interaction may occur, so their awareness that performance opportunities are still possible without it is enhanced. Encouraging athletes to pursue well-being has ethical implications for their mental health and general life experiences, but also as the thesis shows it can be perceived as fundamental for performance. Supporting athletes also to recognise that well-being is not always essential for them to obtain successful performances if they implement relevant strategies to cope, may promote confidence in their performances under lower well-being circumstances. Education of appropriate strategies and facilitation of the development and maintenance of these is a key implication of the current thesis for the roles of athletes' supporters. Rather than a sole focus on attempting to provide the perfect situation for athletes, perhaps there may be added value in ensuring they know that there are things they can do to facilitate performance as they weather life's inevitable ups and downs. Adding to this point, where practitioners are assisting athletes to acknowledge that this may be the case, some caution should be taken with regards the associated risk to the athlete of performing with low well-being or even ill-being. When athletes approach performances alongside well-being concerns, it would perhaps be useful for them to do so together with the sport psychologist or performance lifestyle advisor to maximise their safety and minimise the potential for their issues to be heightened.

A key implication of the thesis is that understanding how athletes perceive the relationship between well-being and sport performance may help us to build better relationships with them that may result in positive service delivery outcomes. I have used an approach as a researcher that may be applied as a useful tool for practitioners to monitor their athletes' well-being, i.e. regular tracking of well-being experiences and fluctuations, along with frequently asking them the right questions at the right time. The proposal of the integrated framework, with its multiple, interrelated levels may act as a template to inform practitioners of what may be useful to include in such monitoring tools. The framework may be applied as a baseline from which to build a strong foundation of enhanced well-being support for future athletes in elite sport.

Increased education around the range of emotion-focused, avoidance and problem-focused coping strategies that may be applied to manage and navigate the interaction of well-being and performance is a key implication of the current thesis. The strategies identified within the current thesis may not be the only methods of coping, and there may also be others that are more effective. It may be useful for practitioners to encourage and assist athletes to develop a repertoire of different strategies appropriate to different circumstances, to enable athletes to be

best prepared and equipped in terms of coping for all eventualities that may arise within the multifaceted and dynamic nature of the interaction. Onset of the introduction of such coping strategies to athletes at the earliest opportunity and regular maintenance and practice of their application would help to ensure that they are applied with maximum effectiveness.

The current thesis found that a number of individual psychological characteristics (e.g., resilience, self-awareness, and appraisal) may be advantageous to the coping process by affecting athletes' responses within their narrative of the relationship. Knowledge of how to develop these interpersonal qualities may be integral to the support provided by athlete support staff (e.g. through educational and practical workshops). Additionally, the thesis illustrated that the utility of the relationship to each athlete was highly individualised because of the number and variability of factors associated with well-being and its connection with performance (e.g. what is perceived as high well-being for one person may be completely different to the next person, and one factor may significantly influence someone but have no impact on someone else). This finding highlights the importance for practitioners to know their athletes closely, but that it may also be useful for athletes to be closely attuned with themselves, advocating that again regular monitoring appears to have arisen as a key implication for the relationship. Both athlete self-monitoring and practitioner monitoring of well-being may develop awareness of individual norms or standards that are facilitative for the athlete and the consistency within these and may identify when there are changes within their well-being profiles. Self-monitoring may increase opportunities for athletes to know more obviously when they need to address things and practitioners may be better able to tailor and time their support to the athletes' well-being fluctuations.

A surprising and unexpected finding of the thesis was that the research process undertaken appeared to act as a kind of therapeutic intervention for the participants in some respects. Both athletes and practitioners identified certain benefits from taking part in the data collection, specifically through the discussions surrounding the well-being – performance relationship. Quotations illustrating these benefits have been provided in the relevant chapters (five and six) earlier in the thesis. Being afforded with a confidential space and structured opportunity to discuss relevant questions around coping with life demands and well-being for athletes, and processing and reflecting on experiences of providing services of support surrounding this for practitioners evoked a secondary benefit, which may have acted as some type of intervention. Perhaps from a practice point of view, engaging in frequent and regular discussions similar to those within the current thesis, athletes and practitioners may gain value



through exploring their experiences via directed discussions to enable fresh and re-focused approaches in their athletic and practitioner roles.

A final implication of the thesis centres around the finding that emerged illustrating the relationship was perceived to be highly individualised because of the person experiencing it, their circumstances, and their background and skill-set. Although the framework offers a proposed model of features within the relationship, the thesis advocates that support for athletes navigating the well-being – performance relationship may need to be tailored to the individual, and that their particular sport may need to be considered within this, as there is potential for the sport they do to afford distinct challenges. Where one athlete may need increased support to balance their demands, another may need increased emotional support to manage the pressures associated with weight loss. Knowing the level of individuality that may need to be applied when working with athletes to manage this relationship, may lead to increased effectiveness and efficiency in the provisions offered by practitioners through customised and programmes with particular prioritised aspects.

### **7.8 Future Research Directions**

Over recent decades there has been a growing interest and body of research examining well-being in sport (e.g. Conte et al., 2018) and it has become an increasingly relevant area within high-level sport performance (e.g. Lundqvist & Sandin, 2014). Despite this, there remains a number of areas yet to be studied that require additional inquiry to enable the support for athletes managing their well-being alongside sport performance, particularly if these are career-defining moments, to be further enhanced.

The current thesis has presented the perceived relationship of well-being and sport – performance as understood in the context of elite athletes. Elite athletes are a unique sample to examine as the thesis has highlighted the complex demands they are required to deal with. It would be interesting to compare what has been found with elite athletes with samples in sub-elite levels. Exploring the relationship experiences of sub-elite athletes may stimulate the findings in this area by assessing how this perceived relationship plays out for people who have a different set of demands in their lives.

Findings from the current thesis identified a range of different types of coping strategies in athletes' narratives that they perceived were employed to manage the effect of their low well-being when it interacted with successful performances. Perhaps this aspect of the framework could be explored in greater depth and with a broader scope to refine its application within the relationship. To extend this knowledge, it may be useful to examine whether particular types of coping strategies are more or less effective in these situations, to determine

whether it may be more beneficial for an athlete to implement one type over another. For example, are positively framed methods, such as positive re-framing or re-appraisal of current personal situation, superior to more neutral or negatively framed methods, such as blocking and compartmentalisation? Certain strategies may be more applicable to certain circumstances and less effective in others, and to gain some insight into this may help athletes to further enhance the ways they can cope to obtain optimal performances regardless of sub-optimal well-being states.

The current thesis has proposed a framework of the perceived relationship between well-being and sport performance on the basis of discussions with practitioners from a range of types of sports, but elite athletes from predominantly individual sports. To advance knowledge beyond the current thesis, it may be of significance to consider the application of the framework with populations of elite athletes from a wider range of sports. Assessing the utility of the framework within team-based sports may be useful to identify whether similar, or any additional, factors arise or are emphasised or de-emphasised within team sport narratives. Team sports present with dynamics unique to individual sports and often coaching and training styles are different. It would be interesting to appreciate whether any of these subtleties make a difference to the way the relationship plays out.

The present programme of work has highlighted that the sport environment and culture may be significant within narratives of the relationship between well-being and sport performance, because they may impact athletes' own approaches to treating and managing their own well-being. Further research regarding this aspect of the framework is needed to assess whether this is the case. To extend this knowledge, assessing athletes' attitudes towards their well-being across different sports and perhaps their perceptions of how well they think their own sport approaches and prioritises well-being, may highlight where sporting delivery is satisfactory and where it may be underperforming. Knowing this will help to identify certain sports that may need to increase their facilitation and encouragement of the pursuit of well-being and this may also be advantageous in a mental health capacity.

The thesis made reference to the potential demands of different sports (e.g. dieting in boxing which led to an inability to maximise training and performance) and how these play a role within the narratives of the well-being and performance relationship. Although the thesis did not examine or present the specific demands of all the sports the participants did, it is likely that there are certain sport-specific factors in many sports that may inflict their own influence on athletes' well-being, just as the demands of boxing illustrated here. To extend knowledge, it may be useful to gather a greater understanding of these sport-specific well-being factors to

allow athletes and practitioners to foresee the potential challenges that may present through their sport, so they can be better prepared and equipped to deal with them in advance. It may be useful to audit each sport individually for its associated needs, and gather this information from multiple sources such as athletes, coaches, practitioners, parents etc. for a more complete picture of the impacts of the sport on athletes' well-being. This additional research may further enrich the support provided to athletes through more bespoke programmes, especially with sports that present with unique challenges, requirements and practices.

The current thesis has identified various aspects considered to be relevant within the relationship between well-being and sport performance. Due to the data collection procedures, however, findings may be difficult to transfer to other contexts. To determine whether these features of the relationship are statistically generalisable, it may be suitable to employ a large sample quantitative study, assessing each element individually in relation to the well-being – performance association. This type of inquiry may also facilitate recognition of factors identified as most important within the relationship, which could assist clubs and organisations in their prioritisation of resources when helping and managing athletes. These outcomes might be particularly significant for institutes with limited funds and finances who may only be able to cover the cost of a limited programme of intervention, compared to those organisations able to fund resources to manage and develop widescale interventions and support services. Such numerical data might offer information that can complement qualitative data and give us a broader, more complete picture of the area.

### **7.9 Concluding Comments**

To conclude, the current thesis achieved the main purpose and the aims set out. First, the PhD advanced knowledge available on the well-being – performance relationship by providing the first in-depth exploration of how the relationship is experienced and perceived, and the factors considered influential within it, from the perspectives of athletes and sport practitioners. This included an exploration of the narrative of the relationship using both cross-sectional and longitudinal approaches, with the latter providing an illustration of how this relationship between well-being and sport performance occurred individually for athletes over multiple time points. The current PhD arrived at the presentation of the first iteration of a proposed framework illustrating a descriptive integration of findings from across the research journey and highlighting key aspects perceived to moderate and contribute to the relationship. The framework illuminated that the interrelation of well-being and performance was not considered straightforward but was in-fact storied with complexity and intricacy and emerged as a multifaceted phenomenon. The framework may be used by athletes themselves, coaches and

other key stakeholders (e.g. sport psychologists, performance lifestyle advisors, sports clubs and NGBs) to understand the relationship in detail and with the purpose of helping athletes with their process of navigation between their well-being and their performance. The thesis findings have advocated that well-being is fundamentally considered beneficial for performance because it is perceived to increase its likelihood of success, however there is also acknowledgement that well-being does not guarantee nor does it determine performance, highlighting that there are too many factors to establish any concrete or direct links. The findings presented throughout the thesis and within the framework may also provide opportunities for other athletes in future, experiencing interactions of their well-being and performance, to draw parallels between their lives and those of the sample studied within the current research. An enhanced understanding of the current athletes' experiences may result in others having greater knowledge of the factors associated with the relationship, and how to manage or develop these for future use. The current thesis not only advances knowledge and literature in the area of well-being and sport performance but continues to display value in conducting detailed, context-specific research. Practical recommendations for enhancing how this relationship may be better approached and managed going forward, along with suggestions for ways to advance on the thesis findings have been provided throughout the PhD and in the final chapter of the thesis. Further research which builds upon this series of studies will lead to a greater understanding of whether or not individual sports have their own influential aspects associated with well-being, and whether there are more effective methods of navigating this relationship. Suggestions to inform the development of a multifaceted monitoring tool surrounding athletic well-being have also been offered.

## References

- Adie, J., Duda, J.L., & Ntoumanis, N. (2012). Perceived coach autonomy support, basic need satisfaction and the well- and ill-being of elite youth soccer players: A longitudinal investigation. *Psychology of Sport and Exercise* 13, 51-59.
- Agergaard, S., & Ryba, T. V. (2014). Migration and career transition in professional sports: Transnational athletic careers in a psychological and sociological perspective. *Sociology of Sport Journal*, 31, 228-247. doi: 10.1123/ssj.2013-0031
- Agnew, D., Henderson, P., & Woods, C. (2017). Ethics, integrity and well-being in elite sport: A systematic review. *The Sport Journal*, 1-11.
- Aldwin, C. M. (2007). *Stress, coping and development: An integrative perspective* (2nd Ed.). New York: Guilford Press.
- Allen, M. S., & McCarthy, P. J. (2016). Be happy in your work: The role of positive psychology in working with change and performance. *Journal of Change Management*, 16 (1), 55-74.
- Amirault, K., & Orlick, T. (1999). Finding balance within excellence. *Journal of Excellence*, 2, 37–52.
- Amorose, A.J., Anderson-Butcher, D., & Jillian Cooper. (2009). Predicting changes in athletes' well-being from changes in need satisfaction over the course of a competitive season. *Research Quarterly for Exercise and Sport*, 80 (2), 386-392.  
doi:10.1080/02701367.2009.10599575
- Anderson, A., Miles, A., Robinson, P., & Mahoney, C. (2004). Evaluating the athlete's perception of the sport psychologist's effectiveness: What should we be assessing?. *Psychology of Sport and Exercise*, 5(3), 255-277.
- Anshel, M. H. (2001). Qualitative validation of a model for coping with acute stress in sport. *Journal of Sport Behaviour*, 24, 223 – 246.
- Ashfield, A., Harrison, J., & Giles, S. (2017). – Performance Lifestyle in Olympic and Paralympic sport: where positive psychology informs practice. In A. Brady, & B. Grenville-Cleave (Eds.), *Positive Psychology in Sport and Physical Activity: An Introduction* (pp. 204-218). Oxon: Routledge.
- Asztalos, M., Wijndaele, K., De Bourdeaudhuij, I., Philippaerts, R., Matton, L., Duvinneaud, N., ... Cardon, G. (2009). Specific associations between types of physical activity and components of mental health. *Journal of Science and Medicine in Sport*, 12 (4), 468–474.

- Bakır, Y., & Kangalgil, M. (2017). The effect of sport on the level of positivity and well-being in adolescents engaged in sport regularly. *Journal of Education and Training Studies*, 5 (11), 98-104.
- Beamon, K. (2012). "I'm a Baller": Athletic identity foreclosure among African-American former student-athletes. *Journal of African American Studies*, 16 (2), 195-208.
- Beedie, C.J., Terry, P.C., & Lane, A.M. (2000). The profile of mood states and athletic performance: Two meta-analyses. *Journal of Applied Sport Psychology*, 12 (1), 49-68. doi: 10.1080/10413200008404213
- Bennie, A., & O'Connor, D. (2010). Coaching philosophies: Perceptions from professional Cricket, Rugby League and Rugby Union players and coaches in Australia. *International Journal of Sports Science & Coaching*, 5 (2), 309-320. doi: 10.1260/1747-9541.5.2.309
- Bentham, J. (1996). *The collected works of Jeremy Bentham: An introduction to the principles of morals and legislation by Jeremy Bentham (1748-1832)*. Oxford: Clarendon Press.
- Bergman, M. M. (Ed.). (2008). *Advances in Mixed Methods Research: Theories and Applications*. London: SAGE Publications.
- Bermack, E. (1989). Effect of telephone and face-to-face communication on rated extent of self-disclosure by female collegiate students. *Psychological Reports*, 65, 259-267.
- Biddle, S., & Mutrie, N. (2008). *Psychology of physical activity: determinants, well-being and interventions*. (2nd Ed.). London: Routledge.
- Blanchard, C.M., Amiot, C.E., Perreault, S., Vallerand, R.J., & Provencher, P. (2009). Cohesiveness, coach's interpersonal style and psychological needs: Their effects on self-determination and athletes' subjective well-being. *Psychology of Sport and Exercise*, 10, 545-551.
- Blanchfield, A., Hardy, J., & Marcora, S. (2014). Non-conscious visual cues related to affect and action alter perception of effort and endurance performance. *Frontiers in Human Neuroscience*, 8, 967. doi: 10.3389/fnhum.2014.00967
- Bóna, K. (2014). An exploration of the psychological immune system in Hungarian gymnasts. (Master's thesis). University of Jyväskylä.
- Booker, C.L., Harding, S., Benzeval, M. (2011). A systematic review of the effect of retention methods in population-based cohort studies. *BMC Public Health*, 11, 249.
- Bostic, T. J., Rubio, D. M., & Hood, M. (2000). A validation of the subjective vitality scale using structural equation modelling. *Social Indicators Research*, 52 (3), 313-324.

- Bradburn, N. (1969). *The structure of psychological well-being*. Chicago: Aldine.
- Brady, A., & Grenville-Cleave, B. (Eds.). (2017). *Positive Psychology in Sport and Physical Activity: An Introduction*. Oxon: Routledge.
- Brady, A., & Shambrook, C. (2003). Towards an understanding of elite athlete quality of life: A phenomenological study. *Journal of Sports Sciences, 21* (4), 341-342.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3* (2), 77-101.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.
- Brickman, P., & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287–302). New York, NY: Academic Press.
- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: Is happiness relative? *Journal of Personality and Social Psychology, 36*, 917–927. doi:10.1037/0022-3514.36.8.917
- Brüde, B., & Bykvist, K. (2010). Happiness, ethics, and politics: Introduction, history and conceptual framework. *Journal of Happiness Studies, 11*, 541–551. doi:10.1007/s10902-010-9214
- Bullinger, M., Anderson, R., Cella, D., & Aaronson, N. (1993). Developing and evaluating cross-cultural instruments from minimum requirements to optimal models. *Quality of Life Research, 2* (6), 451-459.
- Calmeiro, L., Tenenbaum, G., & Eccles, D.W. (2014). Managing pressure: patterns of appraisals and coping strategies of non-elite and elite athletes during competition. *Journal of sports sciences, 32* (19), 1813-1820.
- Campbell-Sills, L., & Stein, M.B. (2007). Psychometric analysis and refinement of the Connor–Davidson resilience scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress, 20*, 1019–1028. doi:10.1002/jts.20271
- Carless, D., & Douglas, K. (2009). “We haven’t got a seat on the bus for you” or “All the seats are mine”: Narratives and career transition in professional golf. *Qualitative Research in Sport and Exercise, 1* (1), 51-66.
- Carless, D., & Douglas, K. (2013). Living, resisting, and playing the part of athlete: Narrative tensions in elite sport. *Psychology of sport and exercise, 14* (5), 701-708. doi:10.1016/j.psychsport.2013.05.003
- Caruana, E.J., Roman, M., Hernández-Sánchez, J., Solli, P. (2015). Longitudinal studies. *J*

- Thorac Dis*, 7 (11), 537-540. doi:10.3978/j.issn.2072-1439.2015.10.63
- Carver, C.S. (2003). Pleasure as a sign you can attend to something else: Placing positive feelings within a general model of affect. *Cognition and Emotion*, 17, 241-261.
- Chatzisarantis, N., Hagger, M. (2007). The moral worth of sport reconsidered: Contributions of recreational sport and competitive sport to life aspirations and psychological well-being. *Journal of Sport Sciences*, 25 (9), 1047–1056.
- Chelladurai, P. (2007). Leadership in sports. In G. Tenenbaum & R.C. Eklund (Eds.), *Handbook of sport psychology (3rd ed., pp. 113–135)*. Hoboken, NJ: Wiley.
- Clark, A., Fischer, J., Chapple, S., & Senik, C. (2010). *Subjective Well-Being and Social Policy*. OECD.
- Clowes, H., & Knowles, Z. (2013). Exploring the effectiveness of pre-performance routines in elite artistic gymnasts: A mixed method investigation. *Science of Gymnastics Journal*, 5 (2), 27-40.
- Clowes, H., Lindsay, P., Fawcett, L., & Knowles, Z. R. (2015). Experiences of the pre and post retirement period of female elite artistic gymnasts: An exploratory study. *Sport and Exercise Psychology Review*, 11 (2).
- Collins, D., & MacNamara, Á. (2012). The rocky road to the top. *Sports medicine*, 42 (11), 907-914.
- Conte, D., Kolb, N., Scanlan, A. T., & Santolamazza, F. (2018). Monitoring training load and well-being during the in-season phase in NCAA Division I Men's Basketball. *International journal of sports physiology and performance*, 1-25.
- Cooke, P. J., Melchert, T. P., & Connor, K. (2016). Measuring well-being: a review of instruments. *The Counseling Psychologist*, 44 (5), 730-757.
- Costa, C. (2017). Performance Enhancement. *Handbook of Disability Sport and Exercise Psychology*, 253.
- Costanza, R., Fisher, B., Ali, S., Beer, C., Bond, L., Boumans, R., ... & Snapp, R. (2007). Quality of life: An approach integrating opportunities, human needs, and subjective well-being. *Ecological economics*, 61 (2-3), 267-276.
- Côté, J. E. (2005). Identity capital, social capital and the wider benefits of learning: generating resources facilitative of social cohesion. *London review of education*, 3(3), 221-237.
- Crawford, J.R., & Henry, J.D. (2004). The Positive and Negative Affect Schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43 (3), 245-265.



- Creswell, J.W. (2009). *Research design: qualitative, quantitative and mixed method approaches*. (3<sup>rd</sup> Ed.). London: SAGE.
- Creswell, J. W., & Plano Clark, V. L. (2010). *Designing and Conducting Mixed Methods Research*. (2<sup>nd</sup> Ed). London: SAGE Publications.
- Crocker, P.R. (1997). A confirmatory factor analysis of the Positive Affect Negative Affect Schedule (PANAS) with a youth sport sample. *Journal of Sport and Exercise Psychology*, 19 (1), 91-97.
- Cropanzano, R., & Wright, T. A. (2001). When a " happy" worker is really a " productive" worker: A review and further refinement of the happy-productive worker thesis. *Consulting Psychology Journal: Practice and Research*, 53 (3), 182.
- Cropley, B., Baldock, L., Mellalieu, S.D., Neil, R., Wagstaff, C.R.D., & Wadey, R. (2016). Coping with the demands of professional practice: Sport psychology consultants' perspectives. *The Sport Psychologist*, 30 (3), 290-302.
- The Culture Health Check report, UK Sport (2018). *The Culture Health Check Report – Independent Report to Government*. Retrieved from <http://www.uk sport.gov.uk/news/2018/05/17/new-steps-to-improve-athlete-welfare-including-enhanced-british-athletes-commission> (accessed 01/10/2018).
- Cummins, R. A. (1996). The domains of life satisfaction: An attempt to order chaos. *Social Indicators Research*, 38(3), 303–328.
- Deci, E. (1980). *The psychology of self-determination*. Lexington, MA: DD Heath.
- Deci, E.L., & Ryan, R.M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of happiness studies*, 9 (1), 1-11.
- Denzin, N.K., & Lincoln, Y.S. (1994). *Handbook of qualitative research*. Sage Publications, inc.
- Denzin, N.K., & Lincoln, Y.S. (2002). *The Qualitative Inquiry Reader*. Sage Publishing.
- Denzin, N.K., & Lincoln, Y.S. (2005). *The Sage handbook of qualitative research*. Sage Publications Ltd.
- Diakiki, E., Chroni, S.A., & Goudas, M. (2016). Migrating cyclists and identity reconstructions: Two tales of living and parting the dream. *Inquiries in Sport & Physical Education*, 14(3), 87-101.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575.
- Diener, E. (1996). Traits can be powerful, but are not enough: Lessons from subjective well-being. *Journal of research in personality*, 30 (3), 389-399.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a

- national index. *American Psychologist* 55(1), 34.
- Diener, E. (2009). *The science of well-being: The collected works of Ed Diener (Vol. 37)*. Springer Science & Business Media.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71-75.
- Diener, E., & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, E. Diener, & N. Schwartz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 213–229). New York, NY: Russell Sage Foundation.
- Diener, E., Oishi, S., & Lucas, R.E. (2009). Subjective well-being: The science of happiness and life satisfaction. In S.J. Lopez & C.R. Snyder (Eds.), *Oxford handbook of positive psychology* (2<sup>nd</sup> ed., pp. 187-194). New York: Oxford University Press, Inc.
- Diener, E., & Ryan, K. (2009). Subjective well-being: A general over-view. *South African Journal of Psychology*, 39, 391–406. doi:10.1177/008124630903900402
- Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social indicators research*, 40 (1-2), 189-216.
- Diener, E., Suh, E., & Oishi, S. (1997). Recent findings on subjective well-being. *Indian journal of clinical psychology*, 24, 25-41.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97, 143–156. doi:10.1007/s11205-009-9493-y.
- Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222-235. doi:10.5502/ijw.v2i3.4
- Dolan, P., & Metcalfe, R. (2012). Measuring subjective wellbeing: Recommendations on measures for use by national governments. *Journal of social policy*, 41(2), 409-427.
- Dosumu, A.A. (2016). The environmental impacts and wellbeing benefits of sport: Assessing spectator and participant dominated sports in England (Doctoral dissertation, University of Essex).
- Douglas, K., & Carless, D. (2006). The performance environment: A study of the personal, lifestyle and environmental factors that affect sporting performance. *London: UK Sport*.
- Douglas, K., & Carless, D. (2015). *Life Story Research in Sport: Understanding the Experiences of Elite and Professional Athletes through Narrative*. Abingdon, New York: Routledge.

- Dubuc-Charbonneau, N., & Durand-Bush, N. (2015). Moving to Action: The effects of a self-regulation intervention on the stress, burnout, well-being, and self-regulation capacity levels of university student-athletes. *Journal of Clinical Sport Psychology, 9*(2), 173-192.
- Dunn, M. (2014). Understanding athlete wellbeing: The views of national sporting and player associations. *Journal of Science and Medicine in Sport, 18*, 132-133.
- Duty of Care in Sport (2017). *Duty of Care in Sport Review - Independent Report to Government*. Retrieved from [https://www.sportresolutions.co.uk/uploads/related-documents/Duty\\_of\\_Care\\_Review\\_-\\_April\\_2017\\_\\_2.pdf](https://www.sportresolutions.co.uk/uploads/related-documents/Duty_of_Care_Review_-_April_2017__2.pdf) (accessed 03/10/2018).
- Edwards, A. (1953). "The relationship between the judged desirability of a trait and the probability that the trait will be endorsed". *Journal of Applied Psychology, 37*, 90-93.
- Edwards, D.J., Edwards, S.D., & Basson, C.J. (2004). Psychological well-being and physical self-esteem in sport and exercise. *International Journal of Mental Health Promotion, 6* (1), 25-32.
- Edwards, D.J., & Steyn, B.J. (2008). Sport psychological skills training and psychological well-being. *South African Journal for Research in Sport, Physical Education and Recreation, 30*(1), 15-28.
- Eger, R. J., & Maridal, J. H., (2015). A statistical meta-analysis of the wellbeing literature. *International Journal of Wellbeing, 5*(2), 45-74. doi:10.5502/ijw.v5i2.4
- Eime, R.M., Harvey, J.T., Brown, W.J., & Payne, W.R. (2010). Does sports club participation contribute to health-related quality of life. *Medicine & Science in Sports & Exercise, 42* (5), 1022-1028.
- Eime, R.M., Young, J.A., Harvey, J.T., Charity, M.J., & Payne, W.R. (2013). A systematic review of the psychological and social benefits of participation in sport for adults: informing development of a conceptual model of health through sport. *International Journal of Behavioral Nutrition and Physical Activity, 10*, 135.
- EIS what we do. (2018). Retrieved December 29<sup>th</sup> 2018, from <https://www.eis2win.co.uk/what-we-do/>
- Elliott, R. (2013). New Europe, new chances? The migration of professional footballers to Poland's Ekstraklasa. *International Review for the Sociology of Sport, 48*(6), 736-750. doi: 10.1177/1012690212446472
- Erdogan, B., Bauer, T.N., Truxillo, D.M., & Mansfield, L.R. (2012). Whistle while you work: A review of the life satisfaction literature. *Journal of Management, 38*(4), 1038-1083.

- Ericsson, K.A., Prietula, M.J., & Cokely, E.T. (2007). The making of an expert. *Harvard business review*, 85(7/8), 114.
- Filho, E., Di Fronso, S., Forzini, F., Murgia, M., Agostini, T., Bortoli, L., ... Bertollo, M. (2015) Athletic performance and recovery-stress factors in cycling: An ever-changing balance. *European Journal of Sport Science*, 15(8), 671-680, doi:10.1080/17461391.2015.1048746
- Fiske, S. T. (2004). *Social beings: A core motives approach to social psychology*. Hoboken, NJ: Wiley & Sons.
- Fletcher, D., & Sarkar, M. (2016). Mental fortitude training: An evidence-based approach to developing psychological resilience for sustained success. *Journal of Sport Psychology in Action*, 7, 135-157.
- Forgeard, M.J.C., Jayawickreme, E., Kern, M., & Seligman, M.E.P. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1(1), 79-106. doi:10.5502/ijw.v1i1.15
- Fortin-Guichard, D., Boudreault, V., Gagnon, S., & Trottier, C. (2018). Experience, effectiveness, and perceptions toward sport psychology consultants: A critical review of peer-reviewed articles. *Journal of Applied Sport Psychology*, 30(1), 3-22.
- Foster, C., Florhaug, J.A., Franklin, J., Gottschall, L., Hrovatin, L.A., Parker, S., ... & Dodge, C. (2001). A new approach to monitoring exercise training. *The Journal of Strength & Conditioning Research*, 15(1), 109–115.
- Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public health nutrition*, 2(3), 411-418.
- Frank, A. (1995). *The wounded storyteller*. Chicago: The University of Chicago Press.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319. doi:10.1037/1089-2680.2.3.300
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218-226.
- Fredrickson, B. L. (2006). The broaden-and-build theory of positive emotions. In M. Csikszentmihalyi & I.S. Csikszentmihalyi (Eds.), *A life worth living: Contributions to positive psychology* (pp. 85–103). New York, NY: Oxford University Press.
- Frey, B.S., & Stutzer, A. (2002). What can economists learn from happiness research?. *Journal of Economic Literature*, 40 (2), 402-435.
- Friedman, H. (2008). Humanistic and positive psychology: The methodological and

- epistemological divide. *The Humanistic Psychologist*, 36, 113–126.  
doi:10.1080/08873260802111036
- Friesen, A., & Orlick, T. (2010). A qualitative analysis of holistic sport psychology consultants' professional philosophies. *The Sport Psychologist*, 24(2), 227-244.
- Gagné, M., Ryan, R.M., & Bargmann, K. (2003). Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15, 372-390.
- Galvin, K., & Todres, L., (2011). Kinds of well-being: a conceptual framework that provides direction for caring. *International Journal of Qualitative Studies of Health and Well-being*, 6 (4), 1-13.
- Gasper, D. (2010). Understanding the diversity of conceptions of well-being and quality of life. *The Journal of Socio-Economics*, 39(3), 351-360.
- Gastin, P.B., Meyer, D., & Robinson, D. (2013). Perceptions of wellness to monitor adaptive responses to training and competition in elite Australian football. *Journal of Strength & Conditioning Research*, 27(9), 2518–2526.
- Gaudreau, P., & Antl, S. (2008). Athletes' broad dimensions of dispositional perfectionism: Examining changes in life satisfaction and the mediating role of sport-related motivation and coping. *Journal of Sport and Exercise Psychology*, 30(3), 356-382.
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*, 204(6), 291-295.
- Gould, D., & Carson, S., (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology*, 1 (1), 58-78.
- Gould, D., Guinan, D., Greenleaf, C., Medbery, R., & Peterson, K. (1999). Factors affecting Olympic performance: Perceptions of athletes and coaches from more and less successful teams. *The sport psychologist*, 13(4), 371-394.
- Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano US Olympians. *Journal of applied sport psychology*, 13(2), 154-184. doi:10.1080/104132001753149874
- Guba, E.G., & Lincoln, Y.S. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research*, 2, 163-194.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18, 59–82.

- Guest, G., Namey, E., & Mitchell, M. (2013). *Collecting Qualitative Data: A Field Manual for Applied Research*. Los Angeles: Sage.
- Haberl, P., & Peterson, K. (2006). Olympic-size ethical dilemmas: Issues and challenges for sport psychology consultants on the road and at the Olympic Games. *Ethics & Behavior, 16* (1), 25-40.
- Hall, D., James, D., & Marsden, N. (2012). Marginal gains: Olympic lessons in high performance for organisations. *HR Bulletin: Research and Practice, 7* (2), 9-13.
- Halson, S. L. (2014). Monitoring training load to understand fatigue in athletes. *Sports medicine, 44*(2), 139-147.
- Hanin, Y. L. (1995). Individual zones of optimal functioning (IZOF) model: An idiographic approach to performance anxiety. In K. Henschen & W. Straub (Eds.), *Sport psychology: An analysis of athlete behaviour* (pp. 103–119). Longmeadow, MA: Movement Publications.
- Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative research, 12*, 239-242. doi:10.1177/1468794111426607
- Hanrahan, S. J., & Cerin, E. (2009). Gender, level of participation, and type of sport: differences in achievement goal orientation and attributional style. *Journal of Science and Medicine in Sport, 12*, 508-512. doi: 10.1016/j.jsams.2008.01.005
- Hefferon, K., & Boniwell, I. (2011). *Positive Psychology: Theory, Research and Applications*. Maidenhead: Open University Press.
- Henry, I. (2010). Elite athletes and higher education: Lifestyle, 'balance' and the management of sporting and educational performance. *International Olympic Committee, University Relation Olympic Studies Centre*.
- Higgins, E.T. (2006). Value from hedonic experience and engagement. *Psychological Review, 113*, 439-460.
- Higgins, J.P.T., & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions*. Version 5.1.0 [updated March 2011]. The Cochrane Collaboration.
- Hogarth, L.W., Burkett, B.J., & McKean, M.R. (2015). Neuromuscular and perceptual fatigue responses to consecutive tag football matches. *International Journal of Sports Physiology and Performance, 10*(5), 559-565.
- Holland, J., Thomson, R., & Henderson, S. (2006). *Qualitative longitudinal research. A discussion paper*. London: London South Bank University. Retrieved from [https://www.lsbu.ac.uk/\\_\\_data/assets/pdf\\_file/0019/9370/qualitative-longitudinal-research-families-working-paper.pdf](https://www.lsbu.ac.uk/__data/assets/pdf_file/0019/9370/qualitative-longitudinal-research-families-working-paper.pdf) (accessed 09/01/2019).

- Huppert, F.A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-Being, 1* (2), 137-164.
- Hunt, E.R., & Day, M.C. (2018). Narratives of Chronic Pain in Sport. *Journal of Clinical Sport Psychology, 1*-26.
- Hurka, T. (1993). *Perfectionism*. New York: Oxford University Press.
- Huta, V., Park, N., Peterson, C., & Seligman, M. (2006). Pursuing pleasure versus eudaimonia: Links with different aspects of well-being. (Unpublished manuscript).
- Huta, V., & Ryan, R.M. (2010). Pursuing pleasure or virtue: The differential and overlapping well-being benefits of hedonic and eudaimonic motives. *Journal of Happiness Studies, 11* (6), 735-762.
- Jewett, R., Kerr, G., & Tamminen, K. (2018). University sport retirement and athlete mental health: A narrative analysis. *Qualitative Research in Sport, Exercise and Health, 1*-18.
- Johnson, S., Robertson, I., & Cooper, C. L. (2018). Improving Psychological Well-Being: Personal Development and Resilience. In S. Johnson, I. Robertson, & C.L. Cooper, *Well-being: Productivity and happiness at work (pp. 111-123)*. Palgrave Macmillan, Cham.
- Jones, M. V., Meijen, C., McCarthy, P. J., & Sheffield, D. (2009). A theory of challenge and threat states in athletes. *International Review of Sport and Exercise Psychology, 2*, 161-180.
- Jowett, S. (2008). Outgrowing the familial coach–athlete relationship. *International Journal of Sport Psychology, 39*, 20-40.
- Jowett, S., Adie, J.W., Bartholomew, K.J., Yang, S.X., Gustafsson, H., & Lopez-Jiménez, A. (2017). Motivational processes in the coach-athlete relationship: A multi-cultural self-determination approach. *Psychology of Sport and Exercise, 32*, 143-152.  
doi:10.1016/j.psychsport.2017.06.004
- Kahneman, D., Diener, E., & Schwarz, N. (Eds.). (1999). *Well-being: The foundations of hedonic psychology*. New York, NY: Russell Sage Foundation.
- Kaiseler, M., Polman, R., & Nicholls, A. (2009). Mental toughness, stress, stress appraisal, coping and coping effectiveness in sport. *Personality and Individual Differences, 47*(1), 728-733. doi:10.1016/j.paid.2009.06.012
- Kaiseler, M., Polman, R.C.J., & Nicholls, A.R. (2012). Effects of the Big Five personality dimensions on appraisal coping, and coping effectiveness in sport. *European Journal of Sport Science, 72*(1), 62-72. doi:10.1080/17461391.2010.551410

- Kalda, J., Jürimäe, T., & Jürimäe, J. (2004). Relationships between recovery-stress state and performance in sprinters and jumpers. *Perceptual and motor skills*, 99(1), 12-16.
- Kaplan, S., Bradley, J.C., Luchman, J.N., & Haynes, D. (2009). On the role of positive and negative affectivity in job performance: A meta-analytic investigation. *Journal of Applied Psychology*, 94(1), 162–176. doi:10.1037/a0013115
- Kavaliauskas, M. (2010). Relationships between muscular performance and markers of well-being in elite rugby union players. *Sport Science Review*, 19(3-4), 35-61.
- Kellmann, M. (2010). Preventing overtraining in athletes in high-intensity sports and stress/recovery monitoring. *Scandinavian journal of medicine & science in sports*, 20, 95-102.
- Kellmann, M., & Kallus, K.W. (2001). *Recovery-stress questionnaire for athletes*. Champaign, IL: Human Kinetics.
- Kerr, G., & Dacyshyn, A. (2000): The retirement experiences of elite, female gymnasts, *Journal of Applied Sport Psychology*, 12 (2), 115-133. doi:10.1080/10413200008404218
- Kesby, M. (2007). Methodological insights on and from children's geographies. *Children's Geographies*, 5 (3), 193–205.
- Keyes, C.L.M. (1998). Social well-being. *Social psychology quarterly*, 121-140.
- Keyes, C.L.M., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, 4, 197–201. doi:10.1080/17439760902844228
- Keyes, C.L.M., & Shapiro, A.D. (2004). Social well-being in the United States: A descriptive epidemiology. *How healthy are we*, 15(3), 350-72.
- Keyes, C.L.M., Shmotkin, D., & Ryff, C.D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of personality and social psychology*, 82(6), 1007.
- Kipp, L. E., & Weiss, M. R. (2015). Social predictors of psychological need satisfaction and well-being among female adolescent gymnasts: A longitudinal analysis. *Sport, Exercise, and Performance Psychology*, 4(3), 153.
- Knowles, Z.R., Parnell, D., Stratton, G., & Ridgers, N.D. (2013). Learning from the experts: Exploring playground experience and activities using a write and draw technique. *Journal of physical activity and health*, 10(3), 406-415.
- Kowalski, K.C., & Crocker, P.R. (2001). Development and validation of the Coping Function



- Questionnaire for adolescents in sport. *Journal of Sport and Exercise Psychology*, 23(2), 136-155.
- Krohne, H.W. (1993). Vigilance and cognitive avoidance as concepts in coping research. In H.W. Krohne (Ed.), *Attention and avoidance: Strategies in coping with aversiveness* (pp. 19-50). Seattle, WA: Hogrefe & Huber.
- Kruyt, N. (2017). The perceived demands of rugby sevens held by professional players and coaching staff. (Master's thesis). Stellenbosch University.
- Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. London: Sage.
- Kvale, S. (2007). *Doing Interviews*. Sage Publications, Thousand Oaks. doi: 10.4135/9781849208963
- Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of sport and exercise*, 8(1), 85-99.
- Lambert, L., Passmore, H.A., & Holder, M.D. (2015). Foundational frameworks of positive psychology: Mapping well-being orientations. *Canadian Psychology*, 56 (3), 311-321. doi:10.1037/cap0000033
- Lane, A. M. (2007). *Mood and human performance: Conceptual, measurement, and applied issues*. Nova Publishers.
- Lane, A. M. (2007). The rise and fall of the iceberg: development of a conceptual model of mood-performance relationships. *Mood and human performance: Conceptual, measurement, and applied issues*, 1-34.
- Lane, A.M., & Terry, P.C. (2000). The nature of mood: Development of a conceptual model with a focus on depression. *Journal of applied sport psychology*, 12(1), 16-33.
- Lavallee, D. (2005). The effect of a life development intervention on sports career transition adjustment. *The Sport Psychologist*, 19, 193-202.
- Layard, R. (2005). *Happiness: Lessons from a new science*. London: Allen Lane.
- Layard, R. (2010). Measuring subjective well-being. *Science*, 327, 534-535.
- Lazarus, R.S. (1993). Coping theory and research: Past, present, and future. *Psychosomatic Medicine*, 55(3), 234-247. doi:10.1097/00006842-199305000-00002
- Lazarus, R.S. (1999). *Stress and emotion: A new synthesis*. New York: Springer.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lee, H.H., & Cranford, J.A. (2008). Does resilience moderate the associations between

- parental problem drinking and adolescents' internalizing and externalizing behaviours? A study of Korean Adolescents. *Drug and Alcohol Dependence*, 96, 213-221.
- Liberal, R., López-de-la-llave, A., Pérez-Llantada, M.C., & Garcia-Mas, A. (2014). Psychological impact of sports injuries and psychological well-being in relation to sports performance in competition gymnasts. *Revista Portuguesa de Ciências do Desporto*, 14 (3).
- Lucas, R.E., & Fujita, F. (2000). Factors influencing the relation between extraversion and pleasant affect. *Journal of Personality and Social Psychology*, 79, 1039–1056. doi:10.1037/0022-3514.79.6 .1039
- Lundqvist, C. (2011). Well-being in competitive sports – The feel-good factor? A review of conceptual considerations of well-being. *International Review of Sport and Exercise Psychology*, 4 (2), 109-127, doi:10.1080/1750984X.2011.584067
- Lundqvist, C., & Kenttä, G. (2010). Positive emotions are not simply the absence of the negative ones: Development and validation of the Emotional Recovery Questionnaire (EmRecQ). *The Sport Psychologist*, 24, 468 488.
- Lundqvist, C., & Raglin, J.S. (2015). The relationship of basic need satisfaction, motivational climate and personality to well-being and stress patterns among elite athletes: An explorative study. *Motivation and Emotion*, 39(2), 237-246.
- Lundqvist, C., & Sandin, F. (2014). Well-being in elite sport: Dimensions of hedonic and eudaimonic well-being among elite orienteers. *The Sport Psychologist*, 28(3), 245-254. doi:10.1123/tsp.2013-0024
- Lyubomirsky, S., & Dickerhoof, R. (2010). A construal approach to increasing happiness. In J. Tangney & J. Maddux (Eds.), *Social psychological foundations of clinical psychology* (pp. 229–244). New York, NY: Guilford Press.
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological bulletin*, 131(6), 803-855. doi:10.1037/0033-2909.131.6.803
- MacCosham, B., Patry, P., Beswick, C., & Gravelle, F. (2015). Leisure lifestyle and dropout: Exploring the experience of amateur athletes in competitive sport. *International Journal of Sport Management, Recreation and Tourism*, 20(2), 20-39. doi:10.5199/ijsmart-1791-874X-20b
- Macdougall, H.K., O'Halloran, P., Sherry, E., & Shields, N. (2016). Needs and strengths of

- Australian para-athletes: Identifying their subjective psychological, social, and physical health and well-being. *The Sport Psychologist*, 30 (1), 1-12.
- Macdougall, H. K., O'Halloran, P., Sherry, E., & Shields, N. (2017). Putting the athlete first: A comprehensive assessment of elite para athlete well-being. *Journal of Well-Being Assessment*, 1-13. doi:10.1007/s41543-017-0003-8
- Mackintosh, K., Knowles, Z., Ridgers, N., & Fairclough, S. (2011). Using formative research to develop physical activity. CHANGE!: A curriculum-based health-education intervention. *BMC Public Health*, 11, 831.
- Malinauskas, R. (2010). The associations among social support, stress, and life satisfaction as perceived by injured college athletes. *Social Behavior and Personality: an international journal*, 38(6), 741-752.
- Mara, J.K., Thompson, K.G., Pumpa, K.L., & Ball, N.B. (2015). Periodization and physical performance in elite female soccer players. *International journal of sports physiology and performance*, 10 (5), 664-669.
- Maslow, A.H. (1968). *Towards a psychology of being* (2nd Ed.). Princeton, NJ: Van Nostrand.
- Masters, T.J. (2009). *Subjective Well-Being, Sport Performance, Training Load and Life Experiences of College Athletes* (Doctoral dissertation, Bowling Green State University, USA).
- May, J.R., Veach, T.L., Reed, M.W., & Griffey, M.S. (1985). A psychological study of health, injury, and performance in athletes on the US Alpine Ski Team. *The Physician and sportsmedicine*, 13(10), 111-115.
- Mayoh, J., & Jones, I. (2015). Making well-being an experiential possibility: the role of sport. *Qualitative Research in Sport, Exercise and Health*, 7 (2), 235-252. doi:10.1080/2159676X.2014.893901
- Mayring, P. (1991). Die Erfassung subjektiven Wohlbefindens (The assessment of subjective well-being). In A. Abele & P. Becker (Eds.), *Wohlbefinden. Theorie – Empirie – Diagnostik (Well-being – empiricism – diagnostics)* (pp. 51–95). München: Juventa
- McCarthy, P.J. (2011). Positive emotion in sport performance: Current status and future directions. *International Review of Sport and Exercise Psychology*, 4 (1), 50-69, doi: 10.1080/1750984X.2011.560955
- McDowell, I. (2010). Measures of self-perceived well-being. *Journal of psychosomatic research*, 69 (1), 69-79.
- McKenzie, A., Hodge, K., & Carnachan, G. (2003). A life of balance off the field enables

- focus on the field. *Christchurch: New Zealand Rugby Union Association*.
- Melvin, G.A., & Molloy, G.N. (2000). Some psychometric properties of the Positive and Negative Affect Schedule among Australian youth. *Psychological Reports, 86* (3), 1209-1212.
- Michaelson, J., Mahony, S., & Schifferes, J. (2012). *Measuring wellbeing: A guide for practitioners*. New Economics Foundation, London.
- Miller, P.S., & Kerr, G.A. (2002). Conceptualizing excellence: Past, present, and future. *Journal of Applied Sport Psychology, 14*, 140–153.
- Moesch, K., Kenttä, G., Kleinert, J., Quignon-Fleuret, C., Cecil, S., & Bertollo, M. (2018). FEPSAC position statement: Mental health disorders in elite athletes and models of service provision. *Psychology of Sport and Exercise, 38*, 61-71.  
doi:10.1016/j.psychsport.2018.05.013
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., & Prisma Group. (2009). Reprint—preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Physical therapy, 89*(9), 873-880.
- Molnar, G., & Maguire, J. (2008). Hungarian footballers on the move: Issues of and observations on the first migratory phase. *Sport in Society, 11*(1), 74-89. doi: 10.1080/17430430701717798
- Moran, A.P., Matthews, J., & Kirby, K. (2011). Whatever happened to the third paradigm? Exploring mixed methods research designs in sport and exercise psychology. *Qualitative research in sport, exercise and health, 3* (3), 362- 369.  
doi:10.1080/2159676X.2011.607843
- Morgan, W.P. (1985). Selected psychological factors limiting performance: A mental health model. *Limits of human performance, 70-80*.
- Morris, A.F., Lussier, L., Vaccaro, P., & Clarke, D.H. (1982). Life quality characteristics of national class women masters long distance runners. *Annals of Sports Medicine, 1*, 23-26.
- Morse, J.M. (1991) Strategies for sampling. In J.M. Morse (Ed.), *Qualitative Nursing Research: A Contemporary Dialogue* (pp. 127–145). Newbury Park, California: Sage.
- Naci, H., & Ioannidis, J. P. (2015). Evaluation of wellness determinants and interventions by citizen scientists. *Jama, 314* (2), 121-122.
- Neto, F. (1993). The satisfaction with life scale: Psychometrics properties in an adolescent sample. *Journal of youth and adolescence, 22* (2), 125-134.
- Nicholls, A. R., Holt, N. L., Polman, R. C., & Bloomfield, J. (2006). Stressors, coping, and

- coping effectiveness among professional rugby union players. *The Sport Psychologist*, 20(3), 314-329.
- Nicholls, A. R., Levy, A. R., Carson, F., Thompson, M. A., & Perry, J. L. (2016). The applicability of self-regulation theories in sport: Goal adjustment capacities, stress appraisals, coping, and well-being among athletes. *Psychology of Sport and Exercise*, 27, 47-55.
- Nicholls, A. R., & Polman, R.C.J. (2007). Coping in sport: A systematic review. *Journal of sports sciences*, 25(1), 11-31.
- Nicholls, A.R., & Polman, R.C.J. (2007). Stressors, coping, and coping effectiveness among players from the England under-18 rugby union team. *Journal of Sport Behavior*, 30(2), 199-218.
- Nixdorf, I., Frank, R., & Beckmann, J. (2016). Comparison of athletes' proneness to depressive symptoms in individual and team sports: Research on psychological mediators in junior elite athletes. *Frontiers in psychology*, 7, 893.
- Noon, M.R., James, R.S., Clarke, N.D., Akubat, I., & Thake, C.D. (2015). Perceptions of well-being and physical performance in English elite youth footballers across a season. *Journal of Sports Sciences*. doi: 10.1080/02640414.2015.1081393
- Oppliger, R. A., Steen, S. A. N., & Scott, J. R. (2003). Weight loss practices of college wrestlers. *International Journal of Sport Nutrition and Exercise Metabolism*, 13(1), 29-46.
- Orji, R., Lomotey, R., Oyibo, K., Orji, F., Blustein, J., & Shahid, S. (2018). Tracking feels oppressive and 'punishy': Exploring the costs and benefits of self-monitoring for health and wellness. *Digital health*, 4, 1-10. doi: 10.1177/2055207618797554
- Page, K.M., & Vella-Brodrick, D.A. (2009). The 'what', 'why' and 'how' of employee well-being: A new model. *Social Indicators Research*, 90, 441-458.
- Park, S., Lavallee, D., & Tod, D. (2013) Athletes' career transition out of sport: a systematic review. *International Review of Sport and Exercise Psychology*, 6(1), 22-53, doi: 10.1080/1750984X.2012.687053
- Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Patton, M.Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, CA: Sage.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological assessment*, 5(2), 164.

- Pavot, W., Diener, E. D., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction with Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of personality assessment*, 57(1), 149-161.
- Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Current opinion in psychiatry*, 18(2), 189-193.
- Peterson, C., Park, N., & Seligman, M. E. (2005). Orientations to happiness and life satisfaction: The full life versus the empty life. *Journal of happiness studies*, 6(1), 25-41.
- Peterson, C., Ruch, W., Beermann, U., Park, N., & Seligman, M. E. P. (2007). Strengths of character, orientations to happiness, and life satisfaction. *The Journal of Positive Psychology*, 2, 149–156. doi:10.1080/17439760701228938
- Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. Oxford, United Kingdom: Oxford University Press.
- Pink, M. A. (2015). Relationships between AFL player off-field activity, player characteristics, the club environment, and on-field engagement (Doctoral thesis, Australian Catholic University). doi: 10.4226/66/5a9cc059b0ba6
- Pink, M., Saunders, J., & Stynes, J. (2015). Reconciling the maintenance of on-field success with off-field player development: A case study of a club culture within the Australian Football League. *Psychology of Sport & Exercise*, 21, 98-108.
- Podlog, L., Lochbaum, M., & Stevens, T. (2010). Need satisfaction, well-being, and perceived return-to-sport outcomes among injured athletes. *Journal of Applied Sport Psychology*, 22, 167-182.
- Polkinghorne, D. (1988). *Narrative knowing and the human sciences*. Albany, NY: SUNY Press.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of counselling psychology*, 52(2), 137.
- Poucher, Z. A. (2017). *Examining social support among elite female athletes and their main support providers* (Doctoral dissertation, University of Toronto).
- Prapavessis, H. (2000). The POMS and sports performance: A review. *Journal of Applied Sport Psychology*, 12(1), 34-48, doi: 10.1080/10413200008404212
- Price, N., Morrison, N., & Arnold, S. (2010). Life out of the limelight: Understanding the non-sporting pursuits of elite athletes. *The International Journal of Sport and Society*, 1(3), 69-79.

- Rathschlag, M., & Memmert, D. (2013). The influence of self-generated emotions on physical performance: An investigation of happiness, anger, anxiety, and sadness. *Journal of Sport and Exercise Psychology, 35*(2), 197-210.
- Rathschlag, M., & Memmert, D. (2015). Self-Generated Emotions and Their Influence on Sprint Performance: An Investigation of Happiness and Anxiety. *Journal of Applied Sport Psychology, 27*(2), 186-199. doi: 10.1080/10413200.2014.974783
- Rees, T., & Hardy, L. (2000). An examination of the social support experiences of high-level sports performers. *The Sport Psychologist, 14*, 327-347.
- Reinboth, M., & Duda, J.L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise, 7*(3), 269-286.
- Reinboth, M., Duda, J.L., & Ntoumanis, N. (2004). Dimensions of coaching behavior, need satisfaction, and the psychological and physical welfare of young athletes. *Motivation and Emotion, 28*, 297-313.
- Reissman, C.K. (2008). *Narrative methods for the human sciences*. Thousand Oaks, CA: Sage.
- Rice, S.M., Purcell, R., De Silva, S., Mawren, D., McGorry, P.D., & Parker, A.G. (2016). The Mental Health of Elite Athletes: A Narrative Systematic Review. *Sports Medicine, 46*, 1333–1353. doi: 10.1007/s40279-016-0492-2
- Rode, J. C., Arthaud-Day, M. L., Mooney, C. H., Near, J. P., Baldwin, T. T., Bommer, W. H., & Rubin, R. S. (2005). Life satisfaction and student performance. *Academy of Management Learning & Education, 4*(4), 421-433. doi: 10.5465/AMLE.2005.19086784
- Rogers, C. (1961). *On becoming a person*. Boston: Houghton Mifflin.
- Rotter, J. (2011). Rotter internal-external locus of control scale. *Measures of Locus of Control, 10*.
- Ruiz, M.C., Raglin, J.S., & Hanin, Y.L. (2017). The individual zones of optimal functioning (IZOF) model (1978–2014): Historical overview of its development and use. *International Journal of Sport and Exercise Psychology, 15*(1), 41-63, doi: 10.1080/1612197X.2015.1041545
- Ruoff, M. K. (1995). *A Literature Review Investigating the Relationship between Sports Participation and Psychological Well-Being* (Doctoral Dissertation, Biola University).
- Ruseski, J. E., Humphreys, B. R., Hallman, K., Wicker, P., & Breuer, C. (2014). Sport

- participation and subjective well-being: Instrumental variable results from German survey data. *Journal of Physical Activity and Health*, 11(2), 396-403.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68–78. doi: 10.1037/0003-066X.55.1.68
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual review of psychology*, 52(1), 141-166.
- Ryan, R.M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529-565.
- Ryan, R., Huta, V., & Deci, E. (2008). Living well: A self-determination theory perspective on eudaimonia. *Journal of Happiness Studies*, 9, 139–170. doi: 10.1007/s10902-006-9023-4
- Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069–1081.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, 69(4), 719.
- Ryff, C. D., Singer, B. H., & Love, G. D. (2004). Positive health: connecting well-being with biology. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 359, 1383-1394. doi:10.1098/rstb.2004.1521
- Samełko, A., & Guskowska, M. (2016). Affective States and Performance Outcomes—The Findings of Preliminary Research Involving Pentathletes. *Polish Journal of Sport and Tourism*, 23(1), 21-24.
- Sarkar, M., & Fletcher, D. (2014). Psychological resilience in sport performers: A review of stressors and protective factors. *Journal of Sports Sciences*, 32 (15), 1419-1434.
- Sarkar, M., Fletcher, D., & Brown, D.J. (2015). What doesn't kill me...: adversity-related experiences are vital in the development of superior Olympic performance. *Journal of Science and Medicine in Sport*, 18 (4), 475 - 479.
- Saw, A.E., Main, L.C., & Gatin, P.B. (2015). Monitoring the athlete training response: Subjective self-reported measures trump commonly used objective measures: A systematic review. *British Journal of Sports Medicine*, 1–13. doi:10.1136/bjsports-2015-094758
- Saxena, S., Orley, J., & WHOQOL Group. (1997). Quality of life assessment: The World Health Organization perspective. *European psychiatry*, 12, 263-266.



- Schalock, R. L., & Verdugo, M.A. (2002). *Handbook on Quality of Life for Human Service Professionals*. Washington, DC: American Association on Mental Retardation.
- Schinke, R. J., Battochio, R. C., Dube, T. V., Lidor, R., Tenenbaum, G., & Lane, A. M. (2012). Adaptation processes affecting performance in elite sport. *Journal of Clinical Sport Psychology*, 6(2), 180-195.
- Schinke, R. J., Yukelson, D., Bartolacci, G., Battochio, R. C., & Johnstone, K. (2011). The challenges encountered by immigrated elite athletes. *Journal of Sport Psychology in Action*, 2(1), 10-20. doi: 10.1080/21520704.2011.556179
- Scully, D., Kremer, J., Meade, M. M., Graham, R., & Dudgeon, K. (1998). Physical exercise and psychological well-being: A critical review. *British Journal of Sports Medicine*, 32(2), 111-120.
- Sebbens, J., Hassmén, P., Crisp, D., & Wensley, K. (2016). Mental health in sport (MHS): Improving the early intervention knowledge and confidence of elite sport staff. *Frontiers in psychology*, 7, 911.
- Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. *Handbook of Positive Psychology*, 2, 3-12.
- Seligman, M.E.P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: an introduction. *American Psychologist*, 55(1), 5.
- Seligman, M. E., Parks, A., & Steen, T. (2005). A balanced psychology and a full life. In F. Huppert, B. Keverne, & N. Baylis (Eds.), *The science of well-being* (pp. 275–283). Oxford, United Kingdom: Oxford University Press. doi: dx.doi.org/10.1093/acprof:oso/9780198567523 .003.0010
- Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American psychologist*, 60(5), 410.
- Selwyn, J., & Wood, M. (2015). *Measuring Well-Being: A Literature Review*. University of Bristol.
- Shadish, W. R., & Sweeney, R. B. (1991). Mediators and moderators in meta-analysis: There's a reason we don't let dodo birds tell us which psychotherapies should have prizes. *Journal of Consulting and Clinical Psychology*, 59, 883–893. doi:10.1037/0022-006X.59.6.883
- Sheard, M., & Golby, J. (2006). Effect of a psychological skills training program on

- swimming performance and positive psychological development. *International Journal of Sport and Exercise Psychology*, 4(2), 149-169, doi: 10.1080/1612197X.2006.9671790
- Sheldon, K. M., Boehm, J. K., & Lyubomirsky, S. (2012). Variety is the spice of happiness: The hedonic adaptation prevention (HAP) model. In I. Boniwell & S. David (Eds.), *Oxford handbook of happiness* (pp. 901–914). Oxford, United Kingdom: Oxford University Press.
- Shin, D., & Johnson, D. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5(1), 475–492. doi:10.1007/BF00352944
- Silverman, D. (Ed.). (2016). *Qualitative research*. London: Sage.
- Slater, M. (2012). *Olympic cycling: Marginal gains underpin Team GB dominance*. Retrieved from <http://www.bbc.co.uk/sport/0/olympics/19174302>.
- Smith, B. (2013). Disability, Sport and Men's Narratives of Health: A Qualitative study. *Health Psychology*, 32 (1), 110-119. doi: 10.1037/a0029187
- Smith, B. (2017). Generalizability in qualitative research: Misunderstandings, opportunities and recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and Health*, 10(1), 137-149. doi: <http://dx.doi.org/10.1080/2159676X.2017.1393221>
- Smith, B., & McGannon, K.R. (2017). Developing rigor in qualitative research: Problems and opportunities within sport and exercise psychology. *International Review of Sport and Exercise Psychology*, doi: 10.1080/1750984X.2017.1317357
- Smith, A., Ntoumanis, N., & Duda, J. (2010). An investigation of coach behaviors, goal motives, and implementation intentions as predictors of well-being in sport. *Journal of Applied Sport Psychology*, 22(1), 17-33.
- Smith, A. L., Ntoumanis, N., Duda, J. L., & Vansteenkiste, M. (2011). Goal striving, coping, and well-being: A prospective investigation of the self-concordance model in sport. *Journal of Sport and Exercise Psychology*, 33(1), 124-145.
- Smith, B., & Sparkes, A. (2009a). Narrative inquiry in sport and exercise psychology: what can it mean, and why might we do it? *Psychology of Sport and Exercise*, 10, 1–11.
- Smith, B., & Sparkes, A. C. (2009b). Narrative analysis and sport and exercise psychology: Understanding lives in diverse ways. *Psychology of sport and exercise*, 10(2), 279-288.
- Sparkes, A. C. & Smith, B. (2014). *Qualitative research methods in sport, exercise and health*. London: Routledge.

- Springer, K. W., & Hauser, R. M. (2006). An assessment of the construct validity of Ryff's scales of psychological well-being: Method, mode, and measurement effects. *Social science research, 35*(4), 1080-1102.
- Stebbing, J., Taylor, I.M. & Spray, C.M. (2015). The relationship between psychological well- and ill-being, and perceived autonomy supportive and controlling interpersonal styles: A longitudinal study of sport coaches. *Psychology of Sport and Exercise, 19*, 42-49
- Steen, S. N., & Brownell, K. D. (1990). Patterns of weight loss and regain in wrestlers: Has the tradition changed?, *Medicine and Science in Sports and Exercise, 22*(6), 762-768.
- Stephan, Y., & Brewer, B. W. (2007). Perceived determinants of identification with the athlete role among elite competitors. *Journal of applied sport psychology, 19*(1), 67-79.
- Stewart-Brown, S., Tennant, A., Tennant, R., Platt, S., Parkinson, J., & Weich, S. (2009). Internal construct validity of the Warwick-Edinburgh mental well-being scale (WEMWBS): A Rasch analysis using data from the Scottish Health Education Population Survey. *Health and Quality of Life Outcomes, 7*(1), 15–22.  
doi: 10.1186/1477-7525-7-15.
- Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2010). *Report of Commission on the Measurement of Economic Performance and Social Progress: Paris*. Retrieved from:  
[https://www.researchgate.net/publication/258260767\\_Report\\_of\\_the\\_Commission\\_on\\_the\\_Measurement\\_of\\_Economic\\_Performance\\_and\\_Social\\_Progress\\_CMEPSP](https://www.researchgate.net/publication/258260767_Report_of_the_Commission_on_the_Measurement_of_Economic_Performance_and_Social_Progress_CMEPSP).
- Stone, A. A., & Mackie, C. (2013). Conceptualizing Experienced (or Hedonic) Well-Being. *Division of Behavioral and Social Sciences and Education, National Research Council*.
- Stroup, D. F., Berlin, J. A., Morton, S. C., Olkin, I., Williamson, G. D., Rennie, D., ... & Thacker, S. B. (2000). Meta-analysis of observational studies in epidemiology: A proposal for reporting. *The Journal of the American Medical Association, Jama, 283*(15), 2008-2012.
- Sundgot-Borgen, J., & Garthe, I. (2011). Elite athletes in aesthetic and Olympic weight-class sports and the challenge of body weight and body compositions. *Journal of Sports Sciences, 29*(1), 101-114. doi: dx.doi.org/10.1080/02640414.2011.565783
- Swann, C., Moran, A., & Piggott, D. (2015). Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise, 16*, 3-14.  
doi:10.1016/j.psychsport.2014.07.004

- Tanimaru, J.H., & Dos Santos, A.L.P. (2016). Study on the quality of life at a baseball performance center. *Journal of Physical Education and Sport*, 16(2), 365-373. doi: 10.7752/jpes.2016.02058
- Teague, S., Youssef, G.J., Macdonald, J.A., Sciberras, E., Shatte, A., Fuller-Tyszkiewicz, M., ... & Hutchinson, D. (2018). Retention strategies in longitudinal cohort studies: A systematic review and meta-analysis. *BMC medical research methodology*, 18(1), 151.
- Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 9(1), 78.
- Tenenbaum, G., & Driscoll, M. P. (2005). *Methods of research in sport sciences: Quantitative and qualitative approaches*. Meyer & Meyer Verlag.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): Development and UK validation. *Health and Quality of life Outcomes*, 5(1), 63.
- Terry, P. (1995). The efficacy of mood state profiling with elite performers: A review and synthesis. *The Sport Psychologist*, 9(3), 309-324.
- Theberge, N. (2008). "Just a normal bad part of what I do": Elite athletes accounts of the relationship between health and sport. *Sociology of Sport Journal*, 25, 206-222.
- Thelwell, R. C., & Greenlees, I. A. (2001). The effects of a mental skills training package on gymnasium triathlon performance. *The Sport Psychologist*, 15(2), 127-141.
- Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2005). *Research methods in physical activity*. Champaign, IL: Human Kinetics.
- Thorburn, M. (2015). Theoretical constructs of well-being and their implications for education. *British Educational Research Journal*, 41(4), 650-665. doi: 10.1002/berj.3169
- Timmer, A., Sutherland, L. R., & Hilsden, R. J. (2003). Development and evaluation of a quality score for abstracts. *BMC medical research methodology*, 3(1), 2.
- Tod, D., Edwards, C., McGuigan, M., & Lovell, G. (2015). A systematic review of the effect of cognitive strategies on strength performance. *Sports Medicine*, 45(11), 1589-1602. doi:10.1007/s40279-015-0356-1
- Todres, L., & Galvin, K. (2010). 'Dwelling–mobility': An existential theory of well-being. *International Journal of Qualitative Studies on Health and Well-being*, 5 (3), 1-6.
- Torregrosa, M., Ramis, Y., Pallarés, S., Azócar, F., & Selva, C. (2015). Olympic athletes

- back to retirement: A qualitative longitudinal study. *Psychology of Sport and Exercise*, 21, 50-56.
- Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative inquiry*, 16(10), 837-851.
- Tracy, S. J. (2013). *Qualitative research methods*. UK: Wiley-Blackwell.
- Trotter-Mathison, M., & Skovholt, T. (2014). *The resilient practitioner: Burnout prevention and self-care strategies for counselors, therapists, teachers, and health professionals*. Oxon: Routledge.
- Tsai, W.C., Chen, C.C., & Liu, H.L. (2007). Test of a model linking employee positive moods and task performance. *Journal of Applied Psychology*, 92(6), 1570-1583. doi: 10.1037/0021-9010.92.6.1570
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86(2), 320.
- UK Sport and EIS enhance mental health support. (2018). Retrieved December 29<sup>th</sup> 2018, from <https://www.uk sport.gov.uk/news/2018/12/04/uk-sport-and-eis-enhance-mental-health-support>
- Uphill, M., Groom, R., & Jones, M. (2014). The influence of in-game emotions on basketball performance. *European journal of sport science*, 14(1), 76-83. doi: dx.doi.org/10.1080/17461391.2012.729088
- Vealey, R. S. (2007). Mental skills training in sport. In T. Gershon & R.C. Eklund (Eds.), *Handbook of sport psychology*, (3<sup>rd</sup> ed., pp 285-309). Hoboken, NJ: John Wiley & Sons, Inc. doi: 10.1002/9781118270011.ch13
- Verkooijen, K.T., Van Hove, P., & Dik, G. (2012). Athletic identity and well-being among young talented athletes who live at a dutch elite sport center, *Journal of Applied Sport Psychology*, 24(1), 106-113, doi: 10.1080/10413200.2011.633153
- Waldron, S. (2010). Measuring subjective wellbeing in the UK. *Office for National Statistics Report, Newport*.
- Warriner, K., & Lavalley, D. (2008). The retirement experience of elite female gymnasts: Self-identity and the physical self. *Journal of Applied Sport Psychology*, 20, 301-317.
- Waterman, A. S. (2007). On the importance of distinguishing hedonia and eudaimonia when contemplating the hedonic treadmill. *American Psychologist*, 62, 612–613. doi: 10.1037/0003-066X62.6.612
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief

- measures of positive and negative affect: The PANAS scales. *Journal of personality and social psychology*, 54(6), 1063.
- Weinberg, R., Freysinger, V., & Mellano, K. (2018). How can coaches build mental toughness? Views from sport psychologists. *Journal of Sport Psychology in Action*, 9(1), 1-10. doi: 10.1080/21520704.2016.1263981
- Willig, C. (2008). *Introducing qualitative research in psychology: Adventures in theory and method*. Buckingham, UK: Open University Press.
- Woike, B. (2008). The state of the story in personality psychology. *Social and Personality Psychology Compass*, 2, 434-443.
- Wolfenden, L. E., & Holt, N. L. (2005). Talent development in elite junior tennis: Perceptions of players, parents and coaches. *Journal of Applied Sport Psychology*, 17, 108-126.
- Wong, P. T. P. (2010). What is existential positive psychology? *International Journal of Existential Psychology and Psychotherapy*, 3, 1–10.
- Woodman, T., Davis, P. A., Hardy, L., Callow, N., Glasscock, I., & Yuill-Proctor, J. (2009). Emotions and sport performance: An exploration of happiness, hope, and anger. *Journal of sport and exercise psychology*, 31(2), 169-188.
- Woodward, C. (2004). *Winning! - The Story of England's Rise to Rugby World Cup Glory*. London: Hodder and Stoughton.
- Wright, T. A., & Cropanzano, R. (2004). The role of psychological well-being in job performance: A fresh look at an age-old quest. *Organizational Dynamics*, 33(4), 338-351.
- Wrisberg, C. A. (1996). Quality of life for male and female athletes. *Quest*, 48(3), 392-408.
- Yalom, I. H. (1980). *Existential psychotherapy*. New York, NY: Basic Books.
- Yardley, L. (2000). Dilemmas in qualitative research. *Psychology and Health*, 15, 215-228.
- Young, F.A., Powers, J., & Bell, A.L. (2006). Attrition in longitudinal studies: Who do you lose? *Australian and New Zealand Journal of Public Health*, 30(4), 353-361.

**Appendix A: Search strategies of key word combinations piloted for systematic review and list of key words searched within each descriptor group**

Group	Search Strategy			
	1	2	3	4
1	(All well-being terms)	(All well-being terms)	(All well-being terms)	(All well-being terms)
	AND	AND	AND	AND
2	(Sport* OR athlet* OR physical*)	(Sport* OR athlet* OR physical*)	(Sport* OR athlet*)	(Sport* OR athlet*)
	AND	AND	AND	AND
3	(perform* OR compet*)	(perform* OR compet*)	(perform* OR compet*)	(perform* OR compet*)
	AND	AND	AND	AND
4		(questionnaire* OR survey*)		(questionnaire* OR survey*)

*Note.* Strategy 4 was selected for the review

***Well-being descriptors (Group 1)***

Well-being OR Wellness OR Welfare OR happ\* OR “Quality of life” OR “life satisfaction”  
OR “Affective state” OR “Psychological well-being” OR “Subjective well-being” OR hedon\*  
OR Eudaimon\* OR “Psychological function\*”

AND

***Sport-related descriptors (Group 2)***

Sport\* OR Athlet\* OR Physical\*

AND

***Performance-related descriptors (Group 3)***

Perform\* OR Compet\*

AND

***Questionnaire descriptors (Group 4)***

Questionnaire\* OR Survey\*



**Appendix B: Athlete recruitment letter, information sheet, consent form and demographic information sheet used in study two.**



## **ATHLETE RECRUITMENT LETTER**

Dear Sir/Madam,

My name is Hannah Clowes and I am currently completing a PhD in the area of Sport Psychology at Liverpool John Moores University.

I am writing to invite you to take part in a piece of research, which will be examining the relationship between athlete well-being and sport performance. Specifically, examining your experiences, personal views and perceptions of well-being and its impact on sporting performance.

In order to be a participant in the study, you must be (or have been) an elite athlete and have been competing at that level for a minimum of 6 months. Anyone who does not fit this criteria will not be eligible to participate in the study.

The study will involve an interview with myself to discuss in detail your experience of athlete well-being and how it affects sport performance.

Your participation is voluntary and all data collected from the study will remain anonymous and confidential.

If you are interested in participating in the study please take time to read the participant information sheet (attached) and contact me with any questions. I can be contacted by email via [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk). I look forward to your response.

Many Thanks

Hannah Clowes (MSc Sport Psychology)  
PhD Student Researcher  
School of Sport and Exercise Sciences at Liverpool John Moores University  
No 62 Great Crosshall Street Liverpool, L3 2AT  
E: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)



## ATHLETE INFORMATION SHEET

**Title of Project:** *Qualitative investigations in elite sport in the UK*

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

You are being invited to take part in a PhD research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask if there is anything that is not clearly explained or if you would like more information. Take time to decide if you would like to take part or not.

### 1. What is the purpose of the study?

To examine your perceptions of the relationship between athlete well-being and sport performance. Specifically, examining your knowledge, personal views and experiences of athlete well-being and its impact on sporting performance.

### 2. Do I have to take part?

No. Your involvement in this study is voluntary. If you do decide to take part, you will be given this information sheet and asked to sign a consent form. You are still free to withdraw at any time throughout the study without providing a reason. A decision to withdraw will not affect your rights, any future treatment or any service you receive.

### 3. Am I eligible to take part?

Participants must be (or have been) elite athletes and have been competing at this level for a minimum of 6 months.

### 4. What will happen to me if I take part?

If you decide to take part, data will be collected from you in the form of an individual one-to-one audio-recorded interview with the primary researcher. The interview will take place either at the LJMU premises if this is a mutually convenient location, or via telephone. The interview session will take 45-60 minutes.

### 5. Are there any risks / benefits involved?

There are no identifiable risks for taking part in the study. Potential benefits may include participant's increased awareness of current research and athlete well-being, allowing for greater understanding, which may influence and inform practice.

### 6. Will my taking part in the study be kept confidential?

All information or data (personal details/audio recordings etc.) collected throughout the study will remain strictly confidential between you and the researcher/research team. Data will remain anonymous and stored in locked systems (hard files) or in password-protected files (electronic files).

**7. Will my results from the study be used elsewhere other than for the main purpose of the study?**

The results and conclusions from this study may be reported to organisations such as UK Sport in the instance that this is requested. Results may also be presented in conferences or published in journals; however, none of the data or results will be linked directly to participants by ensuring all is presented anonymously.

**This study has received ethical approval from LJMU's Research Ethics Committee (15/SPS/014)**

**Contact Details of Researcher:**

Hannah Clowes  
LJMU, School of Sport and Exercises Sciences, Faculty of Science.  
Email: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

**Contact Details of Academic Supervisor:**

Dr. David Tod  
LJMU, School of Sport and Exercises Sciences, Faculty of Science.  
Email: [D.A.Tod@ljmu.ac.uk](mailto:D.A.Tod@ljmu.ac.uk)

**If you have any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.**

*Please keep a copy of this participant information sheet along with a copy of the signed consent form if you decide to take part in the study.*

]



## ATHLETE CONSENT FORM

**Title of Project:** *Qualitative investigation of athlete well-being and support: Roles, practices and systems in elite sport in the UK*

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

1. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.

3. I understand that any personal information collected during the study will be anonymised and remain confidential

4. I agree to take part in the above study involving interviews

5. I understand that the interview will be audio recorded and I am happy to proceed

6. I understand that parts of our conversation may be used verbatim (direct quotations) in future publications or presentations but that such quotes will be anonymised.

Name of Participant:

Date:

Signature:

Name of Researcher:

Date:

Signature:



## **ATHLETE DEMOGRAPHIC INFORMATION**

**Name:**

**Age:**

**Gender:**

**Sport:**

**Sport Level:**

**Age you started your sport:**

**Amount of hours training per week:**

**Top 3 competition results:**

- 1.
- 2.
- 3.

**Other commitments (i.e. employment, study, other hobbies/interests) and frequency of these commitments**

**Short and long term aims for your sports career:**

## Appendix C: Interview Schedule and map of researcher interpretations for member reflection discussions used in study two



### Athlete Interview Schedule

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#### Introduction

1. Thanks for participation, explanation of study within the PhD, current study aims/purpose,
2. Overview of the interview sections
3. Audio recording and data anonymity/confidentiality
4. Consent and right to withdraw
5. Briefly talk me through your sporting background?
6. How did you come to be where you are currently within your sport career?

---

#### Well-being

1. What do you understand by the term 'well-being'? *Probe: meaning, description, positive/negative, aspects*
2. What factors do you think can affect a person's well-being in life/as a human? *Probe: high well-being, most important factor*
3. What factors do you see as important for well-being in the context of sport/for athletes?
4. How might being an elite athlete result in positive effects for well-being? *Probe: elite sports environment*
5. How might being an elite athlete result in negative effects for well-being? *Probe: elite sports environment*
6. Are you aware of any services that may support your well-being as an athlete? *Probe: use, services offered, maximising use/restrictions to use*

---

#### Performance

1. What do you understand by the term 'performance'? *Probe: quality performance factors*
2. What does it feel like to perform well?
3. What factors are present to indicate you **will** perform well? *Probe: evidence, timing of evidence*
4. How do you know you **are** performing well or not (beyond performance outcomes/scores/times)? *Probe: evidence, signs/symptoms*
5. Can you think of an experience of when you performed well? Tell me about this... what identified this as a good performance?
6. Can you think of an experience of when you did not perform well? Tell me about this... what identified this as a not so good performance?

---

#### Well-being – performance relationship

1. Do you believe there is a relationship between well-being and performance?
2. What is your view on the relationship between athlete well-being and sport performance? *Probe: explanation, sport & life factors, why these views?*
3. What are the dimensions/components of well-being you believe to be most important for sport performance? *Probe: why? Please provide details on...*

4. Can you think of an **example** of when you performed **well** ...? What was your state of well-being like at that time? *Probe: context, life circumstances, environment*
5. Can you think of an **example** of when you **did not perform well**...? What was your state of well-being like at that time? *Probe: context, life circumstances, environment*
6. Can you think of an **example** of when you performed **well**, and your well-being **wasn't** great/you were a bit all over the place/**life not quite in shape**? *Probe: explain, context, environment*
7. Can you think of an **example** of when you **did not perform well** even though your well-being **was** good/you **had your life together**? *Probe: explain, context, environment*
8. Have you had any significant life events during your career? These could be positive or negative? If so, can you think about these may have affected your well-being? How did these affect your performance in training and competition? *Probe: effect on performance in training and competition*
9. Do you believe this relationship to be simple or complex? *Probe: detail, why? context*

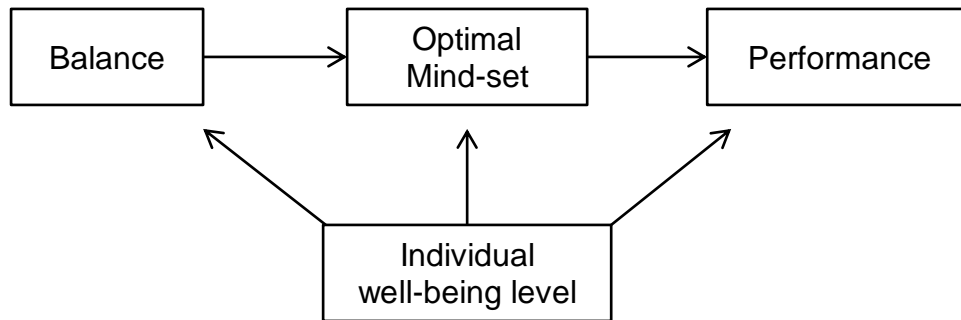
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### Closure

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1. Any further thoughts on the relationship between well-being and sport performance?
2. Anything you believe would have been useful to discuss that you were not asked?
3. Do you have any questions for me/the researcher?
4. Debrief, thanks, explain next steps of the data

### Map of researcher interpretations




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#### Primary Theme: BALANCE

##### *Managing sport and normal life*

- Managing the demand of sport and external commitments
  - o E.g. education/uni/exams/work/social life etc
- Balancing time, energy, resources for different areas in and out of sport
- If application of resources is imbalanced performance suffers
- Priority of different areas of life
- Level of success in different areas
  - o E.g. sport and academic/work

##### *Support systems/networks/resources*

- Sport science support or personal support network
- Other areas of life are taken care of/under control so don't need as much focus on them.

##### *Multidimensional identity*

- Having multiple areas/dimensions to life so not 100% sport
  - o Developing/pursuing other things
  - o Having ways to switch off from sport

##### *Synchronisation of different parts of WB*

- Combination of different factors all happening at the right time to perform
- 

#### Secondary Theme: OPTIMAL MINDSET

##### *When there is balance but not performance:*

##### *Not being forced to get into an optimal mindset*

- Too relaxed/comfortable
- Complacent/Blasé
- Over/under-thinking
- Not focused



- No urgency for good results
- Poor decision making
  - Happy + less technical consideration

*When there is not balance but performance happens:*

- Distractions
    - Worrying about external factors
      - E.g. family, life, education, uni, work, exams, finances, relationships etc.
    - Worrying about sport related factors
      - Ability to perform the required task
  - Coping strategies for the distractions
    - Block out/forget/use performance as escape from reality
    - Change mindset to be positive
    - Motivation to perform comes from loss/tragedy – inspiration
- It is about consistency and re-creating the optimum for you

### **Secondary Theme: INDIVIDUAL WELL-BEING LEVEL**

- Different people need different levels of different things for WB to be high
- People differ in their perceptions of what is high or low WB
- Each person has their own personal standard of WB required to perform
- People differ in their ability to cope with high or low WB so performance is affected depending on this.
- People handle different levels of distractions in different ways, with different levels of imbalance, so this affects performance.

**Appendix D: Practitioner recruitment letter, information sheet, consent form and demographic information sheet used in study three.**



## **PRACTITIONER RECRUITMENT LETTER**

Dear Sir/Madam,

My name is Hannah Clowes and I am currently completing a PhD in the area of Sport Psychology at Liverpool John Moores University. I am writing to invite you to take part in a piece of research, which will be examining the relationship between athlete well-being and sport performance. Specifically, examining the experiences, personal views, perceptions and practices on, or with, athlete well-being and its impact on sporting performance of those currently responsible for managing athlete well-being within UK sport systems (e.g. Performance Lifestyle advisors and Sport psychologists).

In order to be a participant in the study, you must be a professional/expert with knowledge, experience and understanding of Performance Lifestyle systems, and developing/supporting the well-being of elite athletes within UK sports. You must have been in this role for a minimum of 12 months. Anyone who does not fit this criteria will not be eligible to participate in the study.

The study will involve an interview with myself to discuss in detail your experiences of athlete well-being and its impact on sport performance.

Your participation is voluntary and all data collected from the study will remain anonymous and confidential.

If you are interested in participating in the study please inform the primary researcher and further information along with a consent form will be sent to you.

Please contact me with any questions. I can be contacted by email via [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

I look forward to your response.

Many Thanks

Hannah Clowes (MSc Sport Psychology)  
PhD Student Researcher  
School of Sport and Exercise Sciences at Liverpool John Moores University  
No 62 Great Crosshall Street Liverpool, L3 2AT  
E: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)



## PRACTITIONER INFORMATION SHEET

**Title of Project:** *Qualitative investigation of athlete well-being support: Roles, practices and systems in elite sport in the UK*

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

You are being invited to take part in a PhD research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask if there is anything that is not clearly explained or if you would like more information. Take time to decide if you would like to take part or not.

### 8. What is the purpose of the study?

To examine your perceptions of the relationship between athlete well-being and sport performance. Specifically, examining the experiences, personal views, perceptions and practices on, or with, athlete well-being and its impact on sporting performance of those currently responsible for managing athlete well-being within UK sport systems (e.g. performance lifestyle advisors and sport psychologists).

### 9. Do I have to take part?

No. Your involvement in this study is voluntary. If you do decide to take part, you will be given this information sheet and asked to sign a consent form. You are still free to withdraw at any time throughout the study without providing a reason. A decision to withdraw will not affect your rights, any future treatment or any service you receive.

### 10. Am I eligible to take part?

Participants must be professionals/experts with knowledge, experience (minimum of 12 months in the role or similar role) and understanding of performance lifestyle systems, and developing/supporting the well being of elite athletes within UK sports.

### 11. What will happen to me if I take part?

If you decide to take part, data will be collected from you in the form of an individual one-to-one audio-recorded interview with the primary researcher. The interview will take place either at the LJMU premises if this is a mutually convenient location, or via telephone. The interview session will take approximately 60 minutes.

### 12. Are there any risks / benefits involved?

There are no identifiable risks for taking part in the study. Potential benefits may include participant's increased awareness of current research and athlete well-being, allowing for greater understanding, which may influence and inform practice.

### 13. Will my taking part in the study be kept confidential?

All information or data (personal details/audio recordings etc.) collected throughout the study will remain strictly confidential between you and the researcher/research team. Data will remain anonymous and stored in locked systems (hard files) or in password-protected files (electronic files).

**14. Will my results from the study be used elsewhere other than for the main purpose of the study?**

The results and conclusions from this study may be reported to organisations such as UK Sport in the instance that this is requested. Results may also be presented in conferences or published in journals; however, none of the data or results will be linked directly to participants by ensuring all is presented anonymously.

**This study has received ethical approval from LJMU's Research Ethics Committee (REC reference number: 15/SPS/014 on 21/05/15)**

**Contact Details of Researcher:**

Hannah Clowes  
LJMU, School of Sport and Exercises Sciences,  
Faculty of Science.  
Email: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

**Contact Details of Academic Supervisor:**

Dr. David Tod  
LJMU, School of Sport and Exercises Sciences,  
Faculty of Science.  
Email: [D.A.Tod@ljmu.ac.uk](mailto:D.A.Tod@ljmu.ac.uk)

If you have any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.

*Please keep a copy of this participant information sheet along with a copy of the signed consent form if you decide to take part in the study.*



## PRACTITIONER CONSENT FORM

**Title of Project:** *Qualitative investigation of athlete well-being support: Roles, practices and systems in elite sport in the UK*

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

7. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily

8. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.

9. I understand that any personal information collected during the study will be anonymised and remain confidential

10. I agree to take part in the above study involving interviews

11. I understand that the interview will be audio recorded and I am happy to proceed

12. I understand that parts of our conversation may be used verbatim (direct quotations) in future publications or presentations but that such quotes will be anonymised.

Name of Participant:

Date:

Signature:

Name of Researcher:

Date:

Signature:



## **PRACTITIONER DEMOGRAPHIC INFORMATION**

**Name:**

**Age:**

**Gender:**

**Job Title and Description/Job Role:**

**How long have you been working within your current role?**

**Which sports do you work with?**

**How much contact time do you have per week?**

**What does a typical week involve?**

**Have you had any similar roles previous to your current role? (please provide details)**

**Relevant Education and Training history:**

## Appendix E: Interview Schedule used in study three



### Experts/Practitioners Interview Schedule

---

#### Introduction

1. Thanks for participation, explanation of study within the PhD, current study aims/purpose,
2. Overview of the interview sections
3. Audio recording and data anonymity/confidentiality
4. Consent and right to withdraw
5. Briefly talk me through your current sporting role?
6. How did you come to be where you are currently within your sporting role?

---

#### Well-being

1. What do you understand by the term 'well-being'? *Probe: meaning, description, positive/negative, aspects*
2. What factors do you think can affect a person's well-being in life/as a human? *Probe: high well-being, most important factor, how athlete WB is determined/assessed as a practitioner*
3. What factors do you see as important for well-being in the context of sport/for athletes?
4. How does the concept of well-being inform and influence your own practice with athletes? *Probe: aspects of WB developed + how, how does your role impact athlete WB?*
5. Tell me about an experience that might illustrate positive well-being. *Probe: what was present/absent?*

---

#### Performance

1. What do you understand by the term 'performance'? *Probe: quality performance factors*
2. What does it feel like to perform well?
3. What factors are present to indicate an athlete **will** perform well? *Probe: manifestation of evidence, timing of evidence*
4. How do you know an athlete **is** performing well or not (beyond performance outcomes/scores/times)? *Probe: evidence, signs/symptoms*
5. Can you think of an experience of when an athlete you work/worked with performed well? Tell me about this... what identified this as a good performance?
6. Can you think of an experience of when an athlete you work/worked with did not perform well? Tell me about this... what identified this as a not so good performance?

---

#### Well-being – performance relationship

1. Do you believe there is a relationship between well-being and performance?
2. What is your view on the relationship between athlete well-being and sport performance? *Probe: explanation, sport & life factors, why these views?*
3. What are the dimensions/components of well-being you believe to be most important for sport performance? *Probe: why? Please provide details on...*
4. Can you think of an **example** of when an athlete you worked with performed **well** ...? What was their state of well-being like at that time? *Probe: context, life circumstances, environment*

5. Can you think of an example of when an athlete you worked did not perform well...? What was their state of well-being like at that time? *Probe: context, life circumstances, environment*
6. Can you think of an example of when an athlete you worked performed well, and their well-being wasn't great/they were a bit all over the place/life not quite in shape? *Probe: explain, context, environment*
7. Can you think of an example of when an athlete you worked did not perform well even though their well-being was good/they had their life together? *Probe: explain, context, environment*
8. Do you believe this relationship to be simple or complex? *Probe: detail, why? context*

---

**Closure**

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1. Any further thoughts on the relationship between well-being and sport performance?
2. Anything you believe would have been useful to discuss that you were not asked?
3. Do you have any questions for me/the researcher?
4. Debrief, thanks, explain next steps of the data



**Appendix F: Recruitment letter, information sheets, consent forms and demographic information sheet used in study four.**



**ATHLETE RECRUITMENT LETTER:  
LONGITUDINAL STUDY**

Dear Sir/Madam,

My name is Hannah Clowes and I am currently completing a PhD in the area of Sport Psychology at Liverpool John Moores University.

I am writing to invite you to take part in a piece of research, which will be exploring the relationship between well-being and training behaviour.

To be a participant in the study, you must be an elite athlete who has qualified for the national team in your sport at junior or senior level or are a member of a recruiting squad for those teams. You must train for a minimum of 8 hours per week and must have competed nationally. Anyone who does not fit these criteria will not be eligible to participate in the study.

The study will involve completion of a short training diary, weekly well-being diary and three interviews over a 6-month period with myself.

Your institution has provided me with your contact details as they believe that you may fit the criteria of the right population of participants for inclusion within the study. Your participation is voluntary and all data collected from the study will remain anonymous and confidential.

If you are interested in participating in the study please take time to read the participant information sheet (attached) and contact me with any questions. I can be contacted by email via [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

If you would like to take part in the study please fill in and sign the attached consent form and either scan this in and email back to me, or send a hardcopy to me in the post (address will be provided if opting for this option). I look forward to your response.

Many Thanks

Hannah Clowes (MSc Sport Psychology)  
PhD Student Researcher  
School of Sport and Exercise Sciences at Liverpool John Moores University  
No 62 Great Crosshall Street Liverpool, L3 2AT  
E: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)



## ATHLETE INFORMATION SHEET: LONGITUDINAL STUDY

**Title of Project:** Longitudinal investigation of athlete well-being and training behaviour

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

You are being invited to take part in a PhD research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask if there is anything that is not clearly explained or if you would like more information. Take time to decide if you would like to take part or not.

### 15. What is the purpose of the study?

To explore the relationship between well-being and training behaviour as perceived by elite athletes.

### 16. Do I have to take part?

No. Your involvement in this study is voluntary. If you do decide to take part, you will be given this information sheet and asked to sign a consent form. You are still free to withdraw at any time throughout the study without providing a reason. A decision to withdraw will not affect your rights, any future treatment or any service you receive.

### 17. Am I eligible to take part?

Participants must be elite athletes who have qualified for the national team in their sport at junior or senior level or are members of a recruiting squad for those teams. Participants must train for a minimum of 8 hours per week and must have competed nationally.

### 18. What will happen to me if I take part?

If you decide to take part, data will be collected from you in the form of daily training diaries (which should take no longer than 5 minutes to complete), weekly well-being diaries (which should take no longer than 5 minutes to complete) and three individual one-to-one audio-recorded interviews with the primary researcher across a 6-month period. Interviews will take place either at mutually convenient locations or via telephone. The interview sessions will take no longer than 30 minutes.

### 19. Are there any risks / benefits involved?

Risks may include self-disclosure of personal and potentially upsetting information regarding your well-being. Each time you make a submission of well-being data (i.e. well-being diary) you will receive a response from the researcher that will signpost you to relevant services and support should you require it. Potential benefits may include participant's increased awareness of personal factors that may be influencing their sport performances and may increase their desire to address these further. Participants may also increase their knowledge and understanding of athlete well-being, which may identify and inform ways of coping with different states of well-being at times of performance.

### 20. Will my taking part in the study be kept confidential?

All information or data (personal details/audio recordings etc.) collected throughout the study will remain strictly confidential between you and the researcher/research team. Any disclosure of potential to engage in harming behaviour to the self or others will class as conditions under which confidentiality will be breached. Data will remain anonymous and stored in locked systems (hard files) or in password-protected files (electronic files).

**21. Will my results from the study be used elsewhere other than for the main purpose of the study?**

The results and conclusions from this study may be reported to organisations such as UK Sport in the instance that this is requested. Results may also be presented in conferences or published in journals; however, none of the data or results will be linked directly to participants by ensuring all is presented anonymously.

**This study has received ethical approval from LJMU's Research Ethics Committee (REC reference number: 16/SPS/051. Date of approval: 13/10/16)**

**Contact Details of Researcher:**

Hannah Clowes  
LJMU, School of Sport and Exercises Sciences, Faculty of Science.  
Email: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

**Contact Details of Academic Supervisor:**

Dr. David Tod  
LJMU, School of Sport and Exercises Sciences, Faculty of Science.  
Email: [D.A.Tod@ljmu.ac.uk](mailto:D.A.Tod@ljmu.ac.uk)

**If you have any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.**

*Please keep a copy of this participant information sheet along with a copy of the signed consent form if you decide to take part in the study.*



## ATHLETE CONSENT FORM: LONGITUDINAL STUDY

**Title of Project:** Longitudinal investigation of athlete well-being and training behaviour

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

13. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily

14. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and that this will not affect my legal rights.

15. I understand that any personal information collected during the study will be anonymised and remain confidential

16. I agree to take part in the above study involving interviews and daily/weekly diaries

17. I understand that the interview will be audio recorded and I am happy to proceed

18. I understand that parts of our conversation may be used verbatim (direct quotations) in future publications or presentations but that such quotes will be anonymised.

Name of Participant:

Date:

Signature:

Name of Researcher:

Date:

Signature:



## **ATHLETE DEMOGRAPHIC INFORMATION**

**Name:**

**Age:**

**Gender:**

**Sport:**

**Sport Level:**

**Age you started your sport:**

**Amount of hours training per week:**

**Please specify and teams/squads you are a member of:**

**Top 3 competition results:**

- 1.
- 2.
- 3.

**Other commitments (i.e. employment, study, other hobbies/interests) and frequency of these commitments**

**Short and long term aims for your sports career:**

**Normal weekly training schedule:**

Please state the time and length of all training sessions as well as the nature of the session (e.g. technical, physical, other) to provide me with a detailed understanding of a typical week for you.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning							
Afternoon							
Evening							

Please add any other information you deem relevant regarding your training schedule

**Normal weekly non-sport commitments schedule:**

Please state the time and length of all other commitments (e.g. work, college/university, hobbies etc.) well as the nature of these commitments (e.g. type of work etc.) to provide me with a detailed understanding of a typical week for you.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning							
Afternoon							
Evening							

Please add any other information you deem relevant regarding your non-sport commitments schedule.

Please provide me with an outline/list of dates of your sport competitions as well as any other significant dates within your calendar (such as squads/camps/testing dates etc.) in order to provide me with a detailed understanding of your busier/quieter periods of workload/training load.

Please provide me with an outline/list of any important dates within your non-sport commitments (such as academic exams/coursework deadlines, important work deadlines etc.) in order to provide me with a detailed understanding of your busier/quieter non-sport workloads.

If there is another format you have all, or any, of this information in which would be easier to send across or give access to then please feel free to suggest this to myself.





## GATEKEEPER INFORMATION SHEET: LONGITUDINAL STUDY

**Title of Project:** Longitudinal investigation of athlete well-being and training behaviour

**Researcher:** *Hannah Clowes, School of Sport and Exercise Sciences, Faculty of Science*

You are being invited to allow access/give permission for members of your organisation to take part in a PhD research study. Before you decide it is important that you understand why the research is being done and what it involves. Please take time to read the following information. Ask if there is anything that is not clearly explained or if you would like more information. Please take time to decide if you would like to grant access/permission for members of your organisation to take part or not.

**1. What is the purpose of the study/rationale for the project?**

To explore the relationship between well-being and training behaviour as perceived by elite athletes.

**2. What we are asking you to do?**

As gatekeeper, you are being asked to provide access/permission to recruit members of your organisation for their involvement within the study.

**3. Why do we need access to your facilities/staff/students?**

Access to members of your organisation would provide us with views from elite athletes who can draw upon experiences of intensive training regimes to allow us to obtain rich information.

**4. If you are willing to assist in the study what happens next?**

If you agree to allowing access to members of your organisation, they will be given information about the research upon invitation to be involved and the opportunity to consider their participation. Informed consent will be obtained from them. Data will be collected through daily training diaries, weekly well-being diaries and three one-to-one interviews (face-to-face or via telephone) with the researcher, which will be audio-recorded and will take approximately 30 minutes. Data collection will take place over a 6-month period.

**5. How we will use the Information/questionnaire?**

Information obtained will be used as part of the completion of a PhD thesis. Information will also be used to make an original contribution to knowledge and will inform practice within UK sports organisations.

**6. Will the name of my organisation taking part in the study be kept confidential?**

All information or data (personal details/audio recordings/name of organisation etc.) collected throughout this study will remain strictly confidential between the participant and the research team. Data will remain anonymous and stored on password-protected files.

## 7. What will taking part involve? What should I do now?

Participation within this research project will involve granting access to members of your organisation who are elite athletes who have qualified for the national team in their sport at junior or senior level or are members of a recruiting squad for those teams. Participants must train for a minimum of 8 hours per week and must have competed nationally. Upon the approval of access to these members, the gatekeeper would contact or provide contact details for these members in order for the researcher to begin the research process with them.

If you decide to allow the researcher access to members of your organisation please sign and return the **Gatekeeper Consent Form** provided.

Should you have any comments or questions regarding this research, you may contact the researchers:

**Primary Researcher:** Hannah Clowes

LJMU, School of Sport and Exercises Sciences, Faculty of Science.

Email: [H.J.Clowes@2015.ljmu.ac.uk](mailto:H.J.Clowes@2015.ljmu.ac.uk)

**Academic Supervisor:** Dr. David Tod

LJMU, School of Sport and Exercises Sciences, Faculty of Science.

Email: [D.A.Tod@ljmu.ac.uk](mailto:D.A.Tod@ljmu.ac.uk)

**This study has received ethical approval from LJMU's Research Ethics Committee (REC reference number: 16/SPS/051. Date of approval: 13/10/16)**

**If you have any concerns regarding your involvement in this research, please discuss these with the researcher in the first instance. If you wish to make a complaint, please contact [researchethics@ljmu.ac.uk](mailto:researchethics@ljmu.ac.uk) and your communication will be re-directed to an independent person as appropriate.**



## GATEKEEPER CONSENT FORM: LONGITUDINAL STUDY

**Title of Project:** Longitudinal investigation of athlete well-being and training behaviour

**Name of Researchers:** Hannah Clowes

Please tick to confirm your understanding of the study and that you are happy for members of your organisation to take part in the project:

*Longitudinally following the well-being and training behaviour of elite athletes through collection of weekly subjective data and four interviews across a 6-month period.*

1. I confirm that I have read and understand the information provided for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that participation of our organisation and students/members in the research is voluntary and that they are free to withdraw at any time, without giving a reason and that this will not affect legal rights.
3. I understand that any personal information collected during the study will be anonymised and remain confidential.
4. I agree for our organisation and students/members to take part in the above study.
5. I agree to conform to the data protection act

Name of Gatekeeper:

Date:

Signature:

Name of Researcher:

Date:

Signature:

## Appendix G: Well-being and training diaries used in study four.

### Well-being Diary Section 1: WEMWBS

Below are some statements about thoughts and feelings. Please tick the box that best describes your experience of each statement over the LAST TWO WEEKS

Date:

Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

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None of the time	Rarely	Some of the time	Often	All of the time
1	2	3	4	5

- I've been feeling optimistic about the future
- I've been feeling useful
- I've been feeling relaxed
- I've been feeling interested in other people
- I've had energy to spare
- I've been dealing with problems well
- I've been thinking clearly
- I've been feeling good about myself
- I've been feeling close to other people
- I've been feeling confident
- I've been able to make up my own mind about things
- I've been feeling loved
- I've been interested in new things
- I've been feeling cheerful

**Well-being Diary**  
**Section 2: Comments**

Please expand on your ratings from the above statements and give details of factors you believe have contributed to your responses. The below questions will provide me with some context for your recent well-being experiences.

What has contributed to the way you have been feeling over the past 2 weeks?

Do you feel your well-being has affected your training sessions over the past two weeks? If so please explain how?

Please identify any significant events within the past two weeks that may have had potential to affect your well-being?

- Sports event e.g. competition, trials, squads etc.
- Non-sport event e.g. academic deadline, exams, work deadline/review etc.
- Personal event e.g family, relationship etc.
- None
- Other

Please indicate when these events happened/when you feel these events affected you the most?

Week 1

Week 2

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Please state which event happened on which day (if multiple events during the two-week period)

## Training Diary

Please complete the following questions at least 30 minutes post-session and describe your training session in as much detail as you can

Date

Rate of Perceived Exertion (RPE) Scale

0	Rest
1	Really Easy
2	Easy
3	Moderate
4	Sort of Hard
5	Hard
6	
7	Really Hard
8	
9	Really, Really Hard
10	Maximum, just before hardest race

Please rate your perceived exertion (how hard you felt you worked) from today's session based on the above scale:

Training Duration (minutes):

Please state the type of training/session completed today:

- Technical or Tactical
- Physical Preparation/Strength + Conditioning
- Competition
- Other

Please give a brief description of what was involved in this training session:

e.g.....30 min warm up of physical preparation exercises (such as...), 40 mins technical work (such as...), 20 mins tactical work (such as...), 30 mins circuit based conditioning (such as...)

Training Quality

Please rate the quality of your training within the session:

- 1 Extremely Poor
- 2
- 3 Poor
- 4
- 5 Moderate/Average
- 6
- 7 Good
- 8
- 9
- 10 Optimal/Excellent

Please indicate why you have rated your training quality with the above number?  
What has caused you to rate your session in this way?

**Appendix H: Quantitative data tables and graphs for each participant used in study four.**

Table H.1 *Lucy well-being scores, average training quality values, direction of change within these values and interpretations of the relationship between these values for each fortnightly block.*

Block	Well-being		Average Quality		Relationship
	Value	Direction of change	Value	Direction of change	
1	63		7.9		
2	56	Decrease	8.4	Increase	Mixed
3	63	Increase	8	Decrease	Mixed
4	65	Increase	8.1	Increase	Matching
5	68	Increase	8.2	Increase	Matching
6	69	Increase	8.4	Increase	Matching
7	69	No change	8.2	Decrease	Mixed
8	66	Decrease	8.3	Increase	Mixed
9	66	No change	8.9	Increase	Mixed
10	63	Decrease	7.4	Decrease	Matching
11	62	Decrease	8.7	Increase	Mixed
12	65	Increase	8.8	Increase	Matching
13	65	No change	8.5	Decrease	Mixed
14	64	Decrease	8.5	No change	Mixed
15	60	Decrease	8	Decrease	Matching
16	64	Increase	9.4	Increase	Matching
17	66	Increase	8.7	Decrease	Mixed

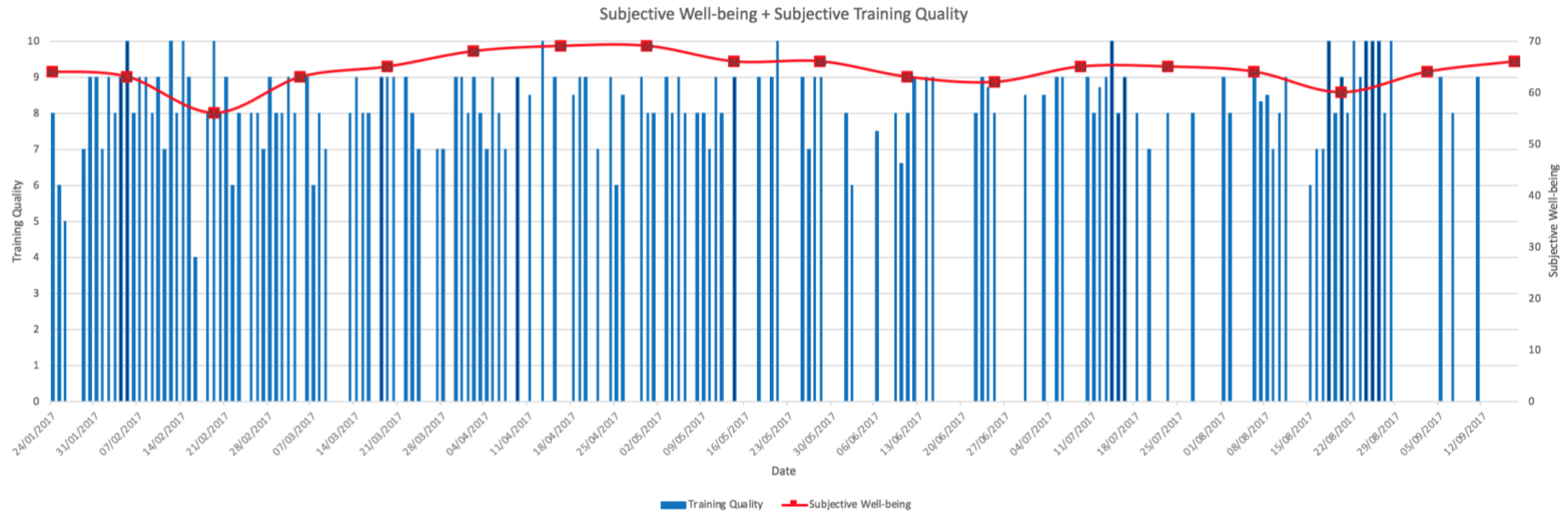


Figure H.1 Lucy individual subjective training quality diary entries and fortnightly subjective well-being diary entries



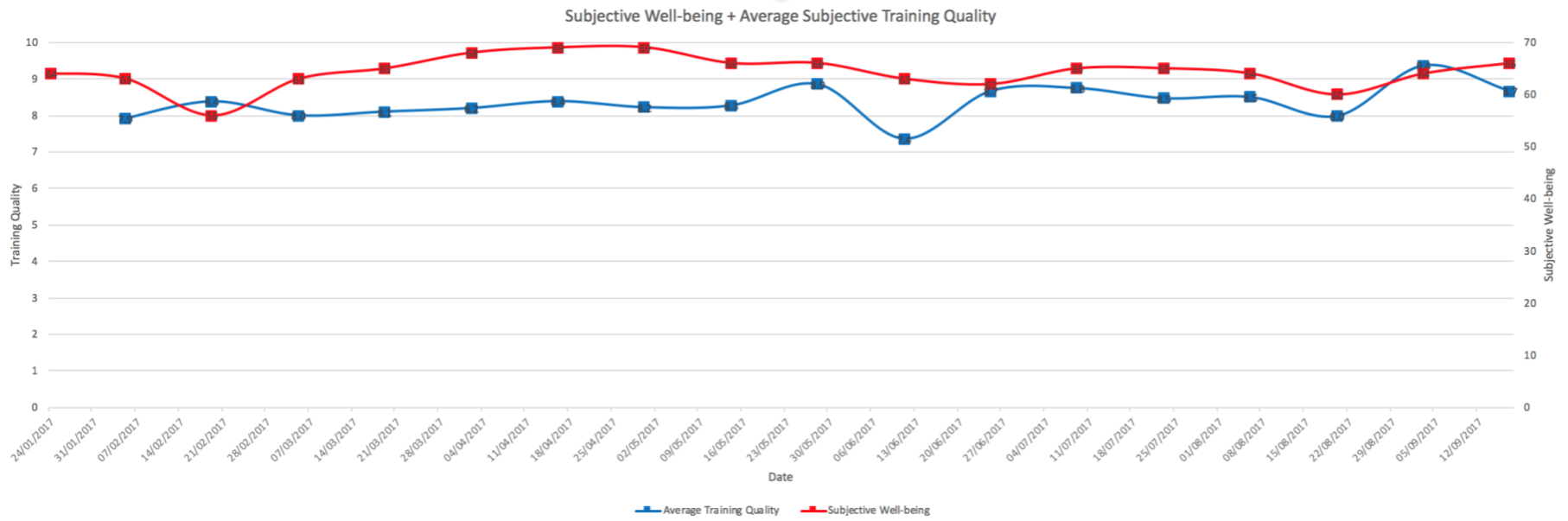


Figure H.2 Lucy average fortnightly subjective training quality and fortnightly subjective well-being

Table H.2 *Adam well-being scores, average training quality values, direction of change within these values and interpretations of the relationship between these values for each fortnightly block.*

Block	Well-being		Average Quality		Relationship
	Value	Direction of Change	Value	Direction of Change	
1	53		7.8		
2	55	Increase	7.6	Decrease	Mixed
3	55	No change	8.2	Increase	Mixed
4	53	Decrease	8.2	No change	Mixed
5	53	No change	7.2	Decrease	Mixed
6	55	Increase	8.2	Increase	Matching
7	53	Decrease	6.5	Decrease	Matching
8	54	Increase	7.3	Increase	Matching
9	56	Increase	7	Decrease	Mixed
10	44	Decrease	7.5	Increase	Mixed
11	53	Increase	7.3	Decrease	Mixed
12	54	Increase	7.3	No change	Mixed
13	54	No change	7.4	Increase	Mixed
14	52	Decrease	7.3	Decrease	Matching
15	56	Increase	7.2	Decrease	Mixed

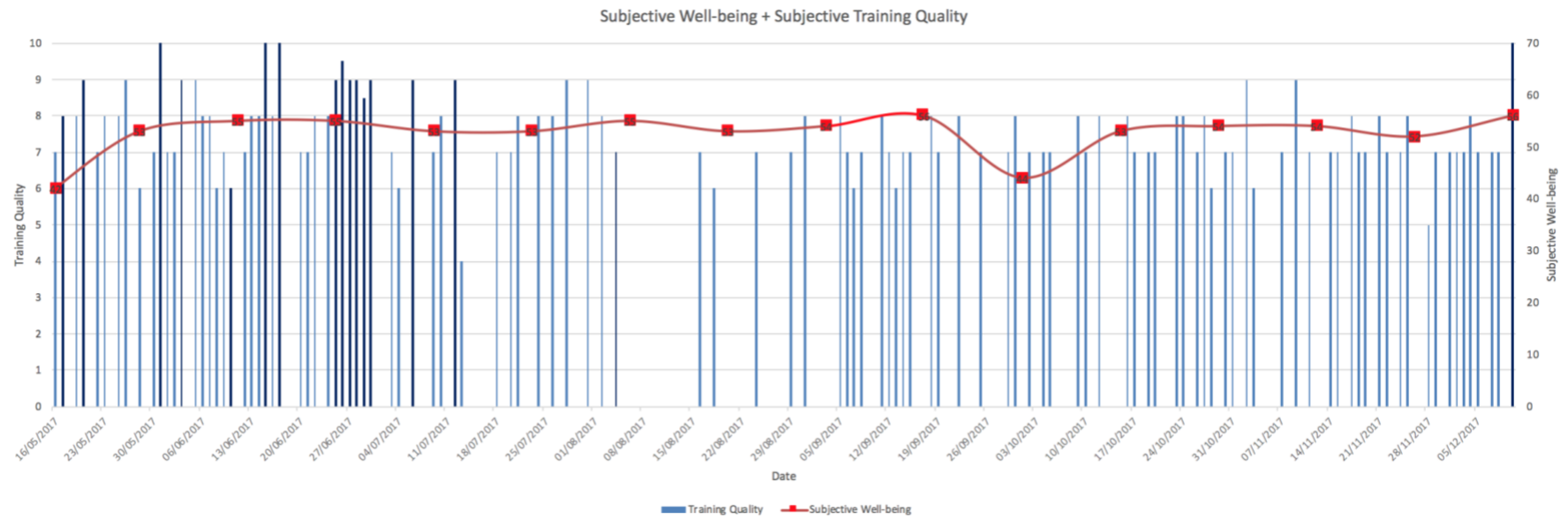


Figure H.3 Adam individual subjective training quality diary entries and fortnightly subjective well-being diary entries

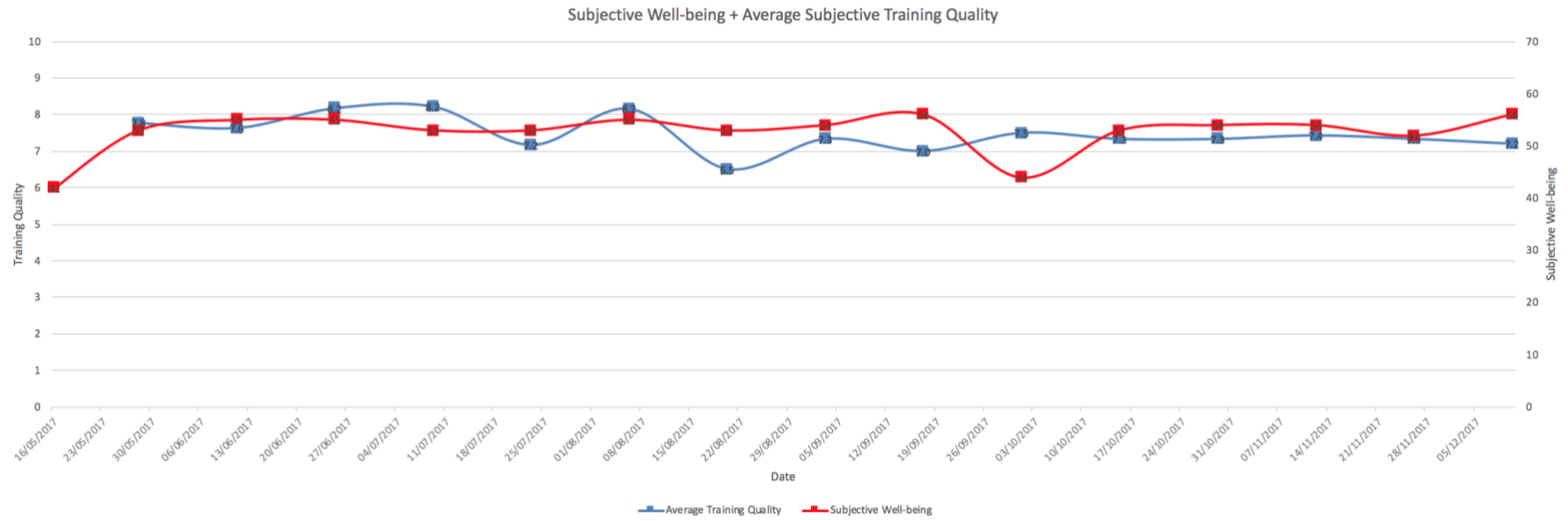


Figure H.4 Adam average fortnightly subjective training quality and fortnightly subjective well-being

Table H.3 *Josh well-being scores, average training quality values, direction of change within these values and interpretations of the relationship between these values for each fortnightly block.*

Block	Well-being		Average Quality		Relationship
	Value	Direction of Change	Value	Direction of Change	
1	50		7.6		
2	40	Decrease	6.5	Decrease	Matching
3	41	Increase	7.8	Increase	Matching
4	59	Increase	7.3	Decrease	Mixed
5	37	Decrease	7.8	Increase	Mixed
6	59	Increase	-		
7	58	Decrease	-		
8	65	Increase	6.5	Decrease	Mixed
9	61	Decrease	7.5	Increase	Mixed
10	67	Increase	-		
11	63	Decrease	7.4	Decrease	Matching
12	65	Increase	8.5	Increase	Matching
13	65	No change	8	Decrease	Mixed
14	66	Increase	8.2	Increase	Matching
15	66	No change	8.9	Increase	Mixed

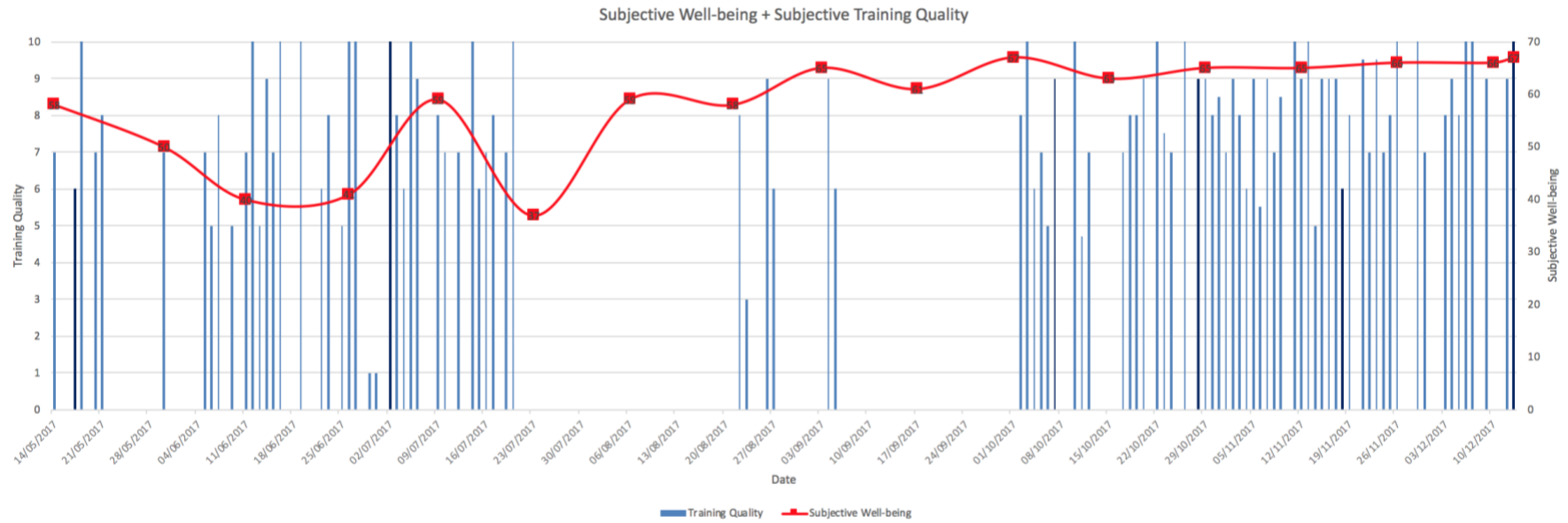


Figure H.5 Josh individual subjective training quality diary entries and fortnightly subjective well-being diary entries

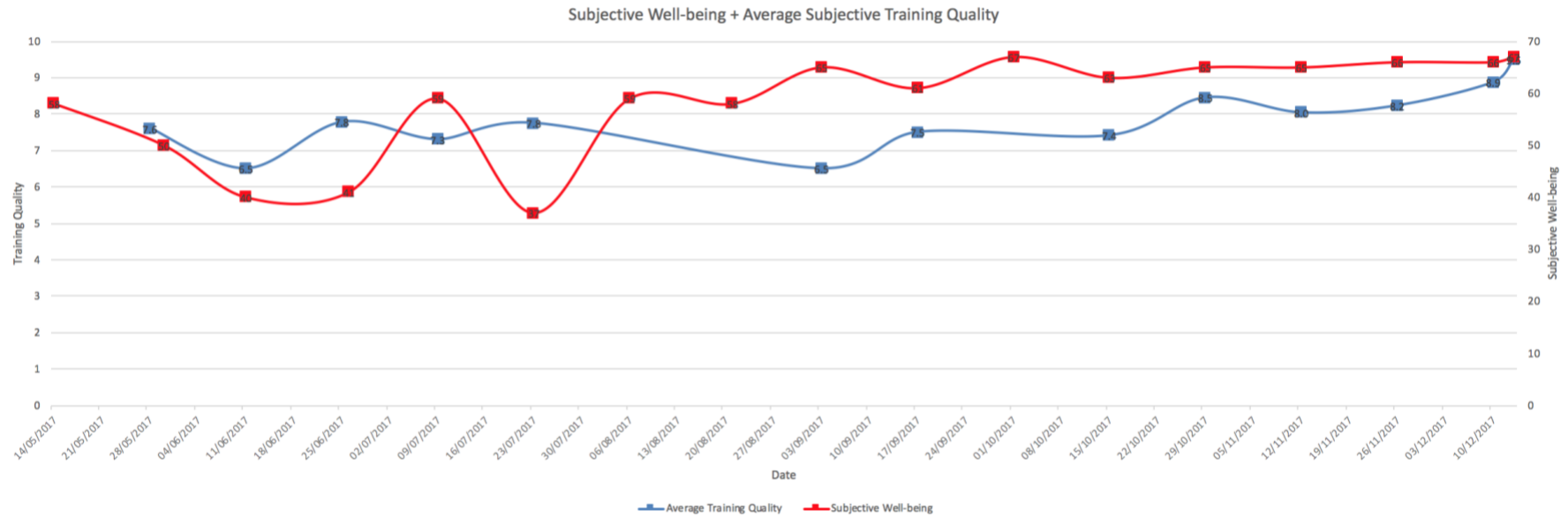


Figure H.6 Josh average fortnightly subjective training quality and fortnightly subjective well-being

Table H.4 *Jack well-being scores, average training quality values, direction of change within these values and interpretations of the relationship between these values for each fortnightly block.*

Block	Well-being		Average Quality		Relationship
	Value	Direction of Change	Value	Direction of Change	
1	45		6.5		
2	47	Increase	6.6	Increase	Matching
3	32	Decrease	7	Increase	Mixed
4	36	Increase	6.9	Decrease	Mixed
5	47	Increase	7	Increase	Matching



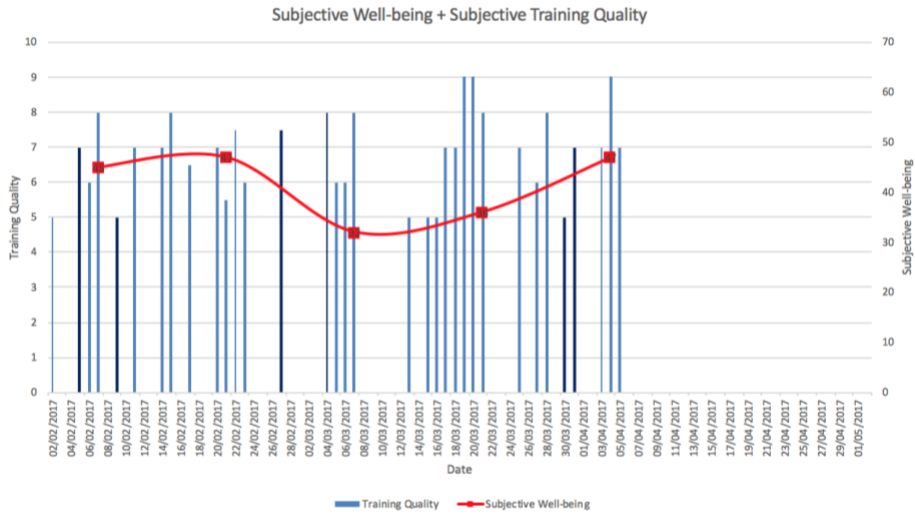


Figure H.7 Jack individual subjective training quality diary entries and fortnightly subjective well-being diary entries

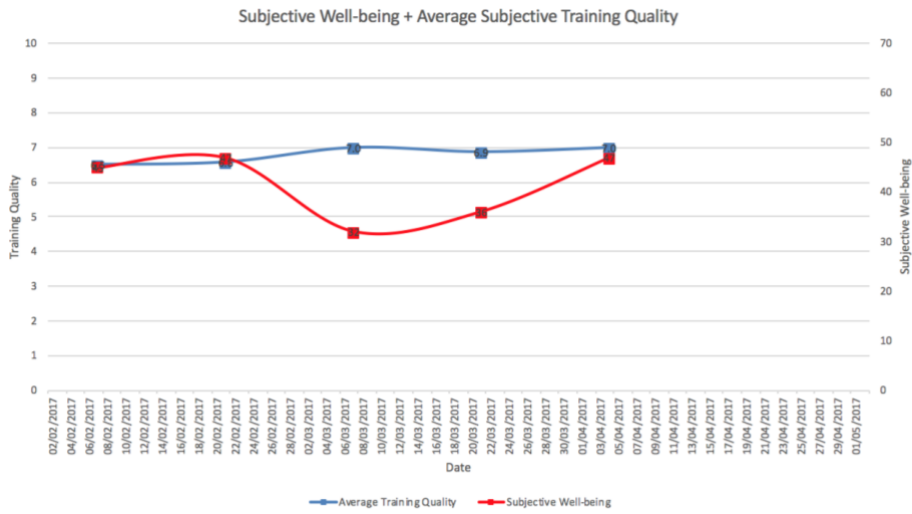


Figure H.8 Jack average fortnightly subjective training quality and fortnightly subjective well-being

## Appendix I: Sample interview schedule used in study four interviews two and three.



### Athlete Interview Schedule Longitudinal Study

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#### Introduction

1. Thanks for participation, explanation of study within the PhD
2. Explanation of interview aims and structure, overview of the interview sections
3. Audio recording and data anonymity/confidentiality
4. Consent and right to withdraw
5. Brief general discussion since previous interview

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#### General comments & presentation of diary data graphs

6. Talk to me generally about how you feel your well-being has been over the past 'x' months and whether you feel this has had any effect on your training or competitive performances.
7. (From graph visuals): Are these fluctuations/stable trends in your well-being and training quality what you would have expected to see based on this period of time? Please elaborate on what you think may have contributed to this.

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#### Discussion of fortnightly blocks – repeat for each block within the time period

1. Dates of training block
2. Well-being score for that training block
3. Training quality trends for that training block – individual and averaged
4. Refresh well-being comments to prompt recall of that time block
5. Discuss identified 'interesting' interactions and trends of well-being and training quality
  - a. Prompts
    - i. What was going on at this point for you?
    - ii. How were you feeling at this point?
    - iii. How do you think (if at all) that how you were feeling had any effect of how you trained or performed here?
    - iv. Can you recall the circumstances surrounding this point here?
6. Discuss both matching fluctuations (higher well-being + higher training quality, lower well-being + lower training quality) and mixed fluctuations (higher well-being + lower training quality, lower well-being + higher training quality)
  - a. Prompts
    - i. What was going on at this point for you?
    - ii. How were you feeling at this point?
    - iii. How do you think (if at all) that how you were feeling had any effect of how you trained or performed here?
    - iv. Can you recall the circumstances surrounding this point here?

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#### Influence of personal well-being characteristics over the time period

1. From interview 1 you identified (characteristic) as important to your well-being, has there been any instances over this time period where you have felt that this well-being element has had a role in your experiences? Tell me about this time.

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#### Closure

1. Any further comments on their well-being and training quality over this time period?
2. Do you have any questions for me/the researcher?
3. Debrief, thanks, explain next steps of the data collection