

**An exploration of Elite Athletes' Experiences, Identity
Transitions, and Environments through Conception,
Pregnancy, and Postpartum**

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Abstract

Numbers of female athletes transitioning into motherhood and returning to elite sport have increased. Despite high profile examples, successful transitions are not guaranteed, and elite athlete mothers remain marginalised within policy, guidelines, and research. This PhD addresses this gap through the novel longitudinal exploration of elite athletes' experiences across pregnancy and into motherhood, how environment impacts this transition, and gaps in support and recommendations for future practice. A total of 62 female athlete participants took part across four qualitative studies. Data was collected via longitudinal interviews, a qualitative case study, and surveys. Data were primarily explored through reflexive thematic analysis, and the original inclusion of identity theory and a bioecological model to underpin findings. Overall, this body of work advances understanding of elite athlete mothers and challenges dominant narratives that equate motherhood with retirement from elite sport. Findings demonstrate that the perinatal transition involves complex and dynamic identity renegotiation, in which athlete, mother, and physical identities are disrupted and subsequently renegotiated, while also providing clear evidence that elite athletes can successfully return to high-performance sport following pregnancy. Additionally, experiences remain shaped by environments, with inconsistencies between policy, practice, provision. Notably, communication and support contributed to unequal outcomes influenced by funding status, performance level, and key players within the system. Despite recent policy developments, gaps in the clarity, coherence, and implementation of support structures persist. The need for more detailed, evidence-informed policies, targeted provisions, and cultural change to enable elite athlete mothers to thrive within high-performance environments remains.

AI statement

ChatGTP has been used to during the writing process of manuscripts and this joining document to support with proofreading and suggestions for how to make sentences and paragraphs more concise.

Declaration and author contribution

This submission of PhD by published work consists of four peer-reviewed published works where the applicant (from here on referred to in the first person) acted as lead author within each study (see table 1). My input in study one related to study design, conceptualisation, data collection, analysis, manuscript writing, and submission was deemed to equate to 70-80% (see appendix 1). The co-author contributed to the research design and acted as a critical friend and proofreader. My contribution in study two involved study design, conceptualisation, data collection and analysis, manuscript writing, and submission as lead author which equated for 70 – 80% (see appendix 1 and 2). Co-author one supported with the application of the bioecological model, acted as a critical friend, and supported manuscript writing, co-author two supported with the study design and proofreading. My study three contribution equated to 70 – 80% for roles such as study design and conceptualisation, data collection and analysis, manuscript writing, and submission (see appendix 1). The co-author supported with study design, acted as a critical friend, and supported with proofreading. I was responsible for the study design and conceptualisation, data collection and analysis, manuscript writing, and submission, equating to 70 – 80% in study four (see appendix 1 and 3). Co-author one supported with the data collection, analysis, acted as a critical friend, and manuscript writing, while co-author two supported with study design, acted as a critical friend, and proofread. No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Table 1: Author contribution

Study	Role	Contribution	Co-author contribution
One	Lead author: Study design, conceptualisation, data collection, data analysis, manuscript writing and submission	70–80 %	Research design, acted as a critical friend, and proofread the manuscript
Two	Lead author: Study design, conceptualisation, data collection, data analysis, manuscript writing and submission	70–80 %	Co-author 1: application of the bioecological model, acted as a critical friend, and supported manuscript writing. Co-author 2: study design and proofreading
Three	Lead author: Study design, conceptualisation, data collection, data analysis, manuscript writing and submission	70–80 %	Study design, acted as a critical friend, and proofread the manuscript
Four	Lead author: Study design, conceptualisation, data collection, data analysis, manuscript writing and submission	70–80 %	Co-author 1: data collection, data analysis, acted as a critical friend, and contributed to manuscript writing. Co-author 2: study design, acted as a critical friend, and proofread the manuscript

Glossary of terms

AFP - Active Pregnancy Foundation

ASP – Athlete Support Personnel

CNF – Creative Non-Fiction

DCMS – Department of Culture, Media and Sport

NGB – National Governing Bodies

PA – Physical Activity

PC – Preconception

PP – Postpartum

PPCT – Person, Proximal processes, Context, and Time

RTA - Reflexive thematic analysis

SAB - Scientific Advisory Board

SEM – Social Ecological Model

SP – Seeking Pregnancy

T1 – Trimester 1

T2 – Trimester 2

T3 – Trimester 3

UKAD – United Kingdom Anti-Doping

WADA – World Anti-Doping Agency

WCP – World Class Programme

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Part 1 Portfolio of published works

Core peer reviewed published works

1. Massey K, and Whitehead A. (2022). Pregnancy and Motherhood in Elite Sport: The Longitudinal Experiences of two Elite Athletes. *Psychology of Sport and Exercise*, 60 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)
2. Massey KL, Cronin CJ, and Whitehead AE. (2024). ‘Baby Ban’ and ‘We are not the same’: Creative non-fiction dialogue exploring pregnancy and motherhood for a funded Paralympic and unfunded Olympic athlete. *Qualitative Research in Sport, Exercise and Health*, 16 [DOI](#) [Publisher Url](#) [Public Url](#)
3. Massey K, and Whitehead A. (2025). “I’m still training for a big event:” A qualitative case study exploring an elite athlete's physical identity journey into motherhood. *International Journal of Sport Psychology*, [Publisher Url](#) [Public Url](#)
4. Massey K, Hanley S and Whitehead A. (2025). ‘I can have a baby, I can come back’: High-Performing Dancers and Athletes Perceptions of Motherhood Compatibility and How to Support the Preconception to Pregnancy Announcement Journey. *Sport in Society*, [DOI](#)

Supporting book chapters and reports

1. Pullen E, and Massey K. (2023). Experiences of Pregnancy on the World Class Programme: Athlete Partner Research [Author Url](#) [Publisher Url](#) [Public Url](#)
2. Massey, K. and Whitehead, A. (2024). The Myth That Being a Good Mother and an Elite Athlete Are Not Compatible. Myths of Sport Performance Sequoia Books
www.researchgate.net/publication/385132554_The_Myth_That_Being_a_Good_Mother_and_an_Elite_Athlete_Are_Not_Compatible

Supporting conference presentations

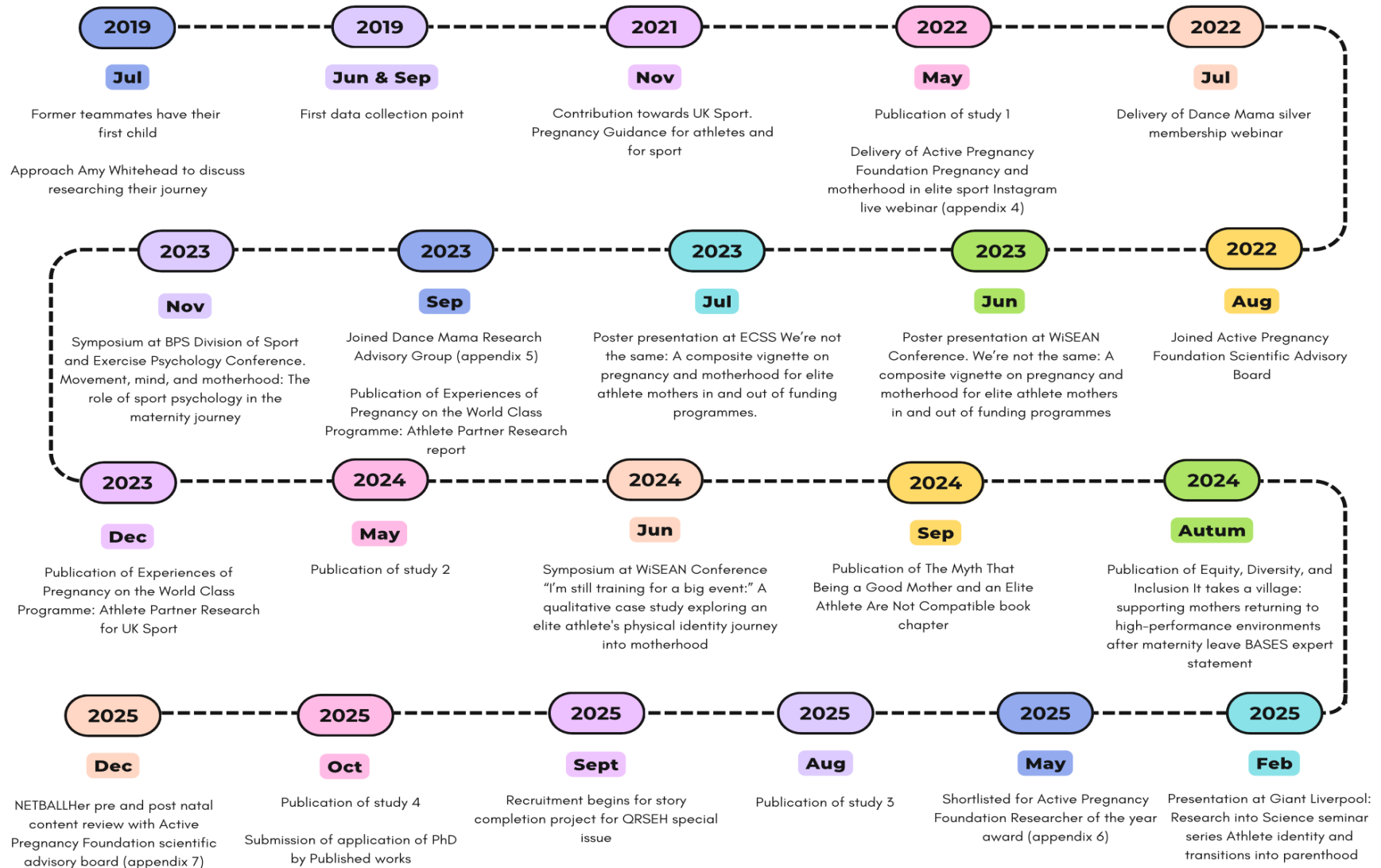
3. The British Psychology Society Division of Sport and Exercise Psychology Conference (2023). Movement, mind, and motherhood: The role of sport psychology in the maternity journey symposium.
<https://cms.bps.org.uk/sites/default/files/2023-11/DSEP%20Annual%20Conference%202023%20-%20Abstracts.pdf>

4. Women in Sport and Exercise Academic Network Conference (2023). We're not the same: A composite vignette on pregnancy and motherhood for elite athlete mothers in and out of funding programmes updated poster presentation. <https://www.ljmu.ac.uk/conferences/women-in-sport-and-exercise-academic-network-conference/programme>
5. European College of Sport Science (2023). We're not the same: A composite vignette on pregnancy and motherhood for elite athlete mothers in and out of funding programmes poster presentation. https://www.ecss.mobi/DATA/CONGRESSES/PARIS_2023/DOCUMENTS/FINPRO/PAR23_FinPro_WEB_Comp.pdf
6. Women in Sport and Exercise Academic Network Conference (2024). "I'm still training for a big event:" A qualitative case study exploring an elite athlete's physical identity journey into motherhood symposium. https://pure.northampton.ac.uk/ws/portalfiles/portal/75448877/Gray_2024_The_Underrepresentation_of_Women_in_Esports_Leadership_Positions_Exploring_the_Barriers_and_Facilitating_Factors_WiSE_AN_List_of_Abstracts.pdf

Supporting other works

7. Evidence on contribution towards UK Sport. Pregnancy Guidance for athletes and for sports (2021; 2023) <https://www.uksport.gov.uk/resources/pregnancy-guidance> available [here](#)
8. L. Johnson, H. Massey and K. Massey (2024). Equity, Diversity, and Inclusion It takes a village: supporting mothers returning to high-performance environments after maternity leave. In The Sport and Exercise Scientist. The official publication of the British Association of Sport and Exercise Sciences. Issue 81
9. Giant Liverpool with LJMU: Research into Science seminar series (2025). Athlete identity and transitions into parenthood

PhD by publication journey



Part 2 Introduction

I retired from a 10-year career as an international 400m athlete. Throughout most of this time, I had been a full time secondary Physical Education teacher, only in my final year in competitive sport did I become fully funded by the World Class Programme (WCP). When I retired from athletics, I knew I did not want to return to secondary education, and instead I accepted a maternity leave position as a lecturer of Physical Education at Liverpool John Moores University. Seven years and six months later, I am still in my role and submitting my PhD by publication on a topic that, I did not expect.

This was not my first attempt at a PhD. When I joined John Moores in 2018, I initially returned to my first attempt that I had started in 2007 after completing my undergraduate degree, which examined the differences between active and inactive children. However, a colleague suggested I should explore my transition out of elite sport. Drawn to identity theories and the opportunity to understand my identity shift, I began an autoethnography exploring my transition into retirement from elite sport. During this time two of my former teammates, both still elite athletes, became pregnant. This prompted questions I had not previously considered as pregnancy within elite sport was so against the norm, further demonstrated by the lack of policy, guidelines, and research. Subsequently, I aimed to develop a qualitative exploration of the transitional journey of elite athletes to elite athlete mothers and the environment they operate within.

Positionality

I engaged with the criteria set forward by my institution, with colleagues who had supported PhDs by publication, read several theses, and reflected on the review process of my core published works. Collectively, these developed my knowledge of what a PhD by publication can be, revealing there are multiple ways to crack the proverbial 'nut'. Therefore, I have created this joining document to demonstrate the coherency across my positionality, methodology, rigor, psychosocial theory, and unified themes (i.e., centralising the participant's voices) that run across the body of collective works. Specifically, my PhD is rooted in a social constructionist paradigm that values the interpretation of lived experiences. Pertaining to this, reality is viewed through a relativist ontology acknowledging multiple subjective realities shaped by individual and social contexts, and a subjectivist epistemology recognising the interdependent relationship between researchers and participants in

the co-construction knowledge (Sparkes and Smith, 2014; Sparkes, 2016). Through this lens, I explored the multifaceted experiences of elite athletes navigating transitions into motherhood, emphasising identity, physicality, and the socio-cultural dynamics of elite sport. This paradigm aligns with the focus on subjective truths and acknowledges that identity and reality are socially constructed, influenced by intersecting individual and environmental factors (Sparkes and Smith, 2014; Sparkes, 2016).

Reflexivity refers to an individual's subjective values and views. To engage in reflexive practice I became more critically self-aware by acknowledging these values and view and how they have developed (Smith and Sparkes, 2016). It is important that I set forward my own lived experience which influences my personal perspective on reality and truth. I have not experienced the perinatal journey. This positions me with an outsider's perspective of conception, pregnancy, and motherhood, allowing me to have critical distance and provide a different subjective lens (Smith and Sparkes, 2016). Yet, my vast experience in elite sport as an international 400m athlete, an occasional mentor and coach to development athletes, and as an anti-doping educator to British Athletics para-athletes provided an insider's perspective of the elite sport environment and how this may hinder parenting decisions. Influences which still play a role in my current life choices. This positionality has been noted to bring challenge to the application of a critical distance while ensuring the subjectivity and views of the participants are contextualised (Smith and Sparkes, 2016), and will therefore be addressed within the rigor section. Despite these limitations, my insider perspective enabled rapport and some elements of equalising power relations between the participants and myself as the researcher (Berkovic *et al.*, 2020). Additionally, this position guided the discussion of topics related to the elite sport context which may only be understood by an interviewer who has been embedded within this environment (Berkovic *et al.*, 2020). Finally, as a researcher I was able to employ a third lens as an academic. This allowed me to critically apply theoretical frameworks to ensure research quality and explore the experiences of the participants.

Context

To extend the reflexivity noted above I offer my backstory and context by which I arrived at the research topic. The most significant year in my athletic career was 2014; I became British Champion, a Commonwealth Games 400m finalist, and won relay medals in the 4 x 400m at the Commonwealth Games and European Championships. It was also a significant year for Alycia Montano running the 800m in the USA Track

and Field Championships. I can clearly remember her bright pink Asics kit, a flower in her hair, and being eight months pregnant. Until that point, I had never considered athletes being pregnant or mothers, especially elite athletes including those funded through processes such as the UK WCP, which are driven by winning medals (UK Sport, n.d). For me, athlete mothers had largely been out of sight out of mind, and Montano was first to put the challenges of motherhood in elite sport on my radar. However, the pregnancies of two former teammates of mine, at a time when I had just entered employment within higher education, further sparked my interest in researching elite athlete motherhood.

Pregnancy and motherhood have long represented pivotal career transitions for female athletes, historically contributing to retirement from sport (Hays, 1996, as cited in Spowart, Burrows, and Shaw, 2010). Although, by the time I started my PhD, the numbers and achievements of elite athlete mothers were growing. Yet, upon further reading the predominant positioning of female athletes as having to choose between their sport or starting a family remained, demonstrating heteronormative ideals and the continued marginalisation of females in sport. Hence, the retirement narrative persisted along with calls to address the gap in research, and the development of policy and guidance to support perinatal athletes (Darroch and Hillsburg, 2017). At that time being a 34-year-old retired athlete, childless, and one year into a relationship, I still wonder if my interest was driven by a subconscious desire to make sense of my own life choices. Beyond my personal thoughts, there remained a need for greater understanding of this significant life and career event, to provide novel insights and actionable recommendations to support athletes in achieving sporting and family goals and enhance future experiences for elite athlete mothers. To address this gap, my PhD by publication journey was aimed at providing a qualitative exploration of the transitional journey of elite athletes to elite athlete mothers and the environment they operate within. The following section will provide an insight into the landscape of the research at the time of starting my PhD and a justification for the research aim and questions.

Existing literature

Background

To build on the personnel context above that prompted this PhD, it is important to acknowledge the existing body of work in this area. Prior to the start of my research, there had been limited exploration of the

perinatal experiences of individuals operating in high-performance environments, such as elite athletes and professional dancers, with a notable absence of strong theoretical underpinnings. Early work explored fertility and labour experiences, pregnancy and postpartum training patterns, and subjective postpartum performance of national level athletes or competitive athletes (Penttinen and Erkkola, 1997; Beilock, Feltz and Pivarnik, 2001), the experiences of non-elite athlete mothers (Batey, 2014, McGannon et al., 2018), and guidelines for pregnant dancers (Sanders, 2008). Yet little research explored the qualitative experiences of elite athlete's journeys into motherhood. What was known suggested historically, elite athlete pregnancy and motherhood has been perceived as improbable, with pregnancy often marking the end of a female athlete's career (Palmer and Leberman, 2009). Athlete mothers navigating this transitional journey, often experience identity loss and unsupportive environments shaped by 'traditional' societal expectations and perceptions that position motherhood and elite performance as mutually exclusive due to physical, psychological, and cultural demands placed on athletes and females (Burke and Stets, 2009; Spowart, Burrows and Shaw, 2010; Darroch *et al.*, 2019). However, increasing numbers of athletes who have successfully balanced elite sport and motherhood challenge this outdated rhetoric. Yet, achieving the elite athlete mother status is not without challenge (McGannon *et al.*, 2015).

Historical constructs of incompatibility

As noted above, the limited research available the start of my PhD identified that 'traditional' narratives positioned elite sport and motherhood as incompatible due to the high probability of career termination or inability to return to sport postpartum (Nash, 2011; Darroch *et al.*, 2019). Traditional gender ideologies of a woman's primary role to be a "good mother" and to uphold these ideals present societal pressures as these individuals try to manage their child's and sporting demands (Martinez Pascual *et al.*, 2014; Martinez-Pascual *et al.*, 2016). These social constructs can significantly shape athletes' postpartum perceptions, decisions, and behaviours regarding a return to performance. In extreme cases, crisis narratives such as adoptions, abortions, and murder of a child have occurred (Cosh and Crabb, 2012). Albeit guilt and athletic sacrifice are more common outcomes (Appleby and Fisher, 2009). Guilt often occurs due to not being present for the child, while sacrifice is demonstrated through training negotiations or rehearsal scheduling which can result in negative experiences during the return to high-performance (Palmer and Leberman, 2009; Vincent Dance Theatre, 2009). Childcare challenges, limited autonomy and flexibility, and organisational support and resistance prove

problematic (Palmer and Leberman, 2009; Vincent Dance Theatre, 2009). Along with the perceived need to justify their training being common for many pregnant elite athletes, because performance-related practices may not be understood by wider society (Martínez-Pascual *et al.*, 2017).

The evolving narrative of motherhood

High profile athletes such as Allyson Felix, Serena Williams, and Shelly-Ann Fraiser-Pryce who successfully returned to sport postpartum challenged dated gender ideals by demonstrating that rather than reducing mothering and athlete capabilities, they can mutually enhance one another. For example, motherhood has been shown to enhance a sense of purpose, resilience, confidence, and capability to cope with sporting pressures (Martínez Pascual *et al.*, 2014; Palmer and Leberman, 2009). While sport allows athlete mothers to recharge and maintain a sense of self (Appleby and Fisher, 2009). Athletes who resist or renegotiate the “good mother” ideal act as positive role models for their children (Appleby and Fisher, 2009) and have been presented in the media as “superwoman” for successfully amalgamating motherhood and elite sport (McGannon *et al.*, 2015). A dominant narrative within media portrayals is the “come back,” where female athletes' bodies and abilities are centralised in discussions on what it means to become an elite athlete and a mother (McGannon *et al.*, 2015; McGannon *et al.*, 2012; McGannon *et al.*, 2017). These external influences alongside intrinsic factors such as motivation to exercise and perceiving this time as an opportunity for recuperation can affect perception of physical self and support a positive experience (Palmer and Leberman, 2009).

Positive perinatal experiences are further facilitated when athletes strategically plan pregnancies around competition cycles (Martínez-Pascual *et al.*, 2017), maintain access to funding, and receive effective engagement and support from peers and key support personnel such as coaches (Darroch and Hillsburg, 2017). However, challenges occur as support personnel and medical professionals may lack necessary knowledge and understanding, leading elite athlete mothers to rely on each other as a trusted and valued source of information (Darroch, Giles and McGettigan-Dumas, 2016). These evolving narratives not only highlight the importance of an effective socio-cultural environment, but shape how athlete mothers are perceived and influence how they understand, construct, and negotiate their own identities. However, while examples of athlete mothers were increasing at the outset of this thesis, there was a lack of theoretical analysis of their experiences.

Identity transition in elite athlete mothers

In elite sport, identity is often centred on being an athlete, referred to as athletic identity, which is characterised by self-regulation, intrinsic motivation, and performance-linked self-worth (Burns, Weissensteiner and Cohen, 2019; Ahmadabadi, Shojaei and Daneshfar, 2014). Pregnancy naturally brings physical and psychological changes, though the significance of these changes varies. These changes can create a disconnect between an athlete's current and desired physical self, particularly given the importance of sports-related body aesthetics and performance standards (Martinez-Pascual *et al.*, 2016). The physiological changes in terms of appearance and performance influence perceptions of physical identity, potentially leading to increased body dissatisfaction, particularly in first-time mothers (Goodwin, Astbury and McMeeken, 2000). Athletes differ in their interpretations of this physical transition; some view the changes as unwelcome and compare themselves to their pre-pregnancy body, while others embrace these changes as a temporary phase (Martinez-Pascual *et al.*, 2016). Moreover, motherhood often shifts the perspective on life priorities (Palmer and Leberman, 2009), creating challenges for elite athlete mothers in balancing time and space between their identities.

The elite athletic and mother identities can coexist, but this requires managing competing demands. Athletes strategically balance the desire to train, compete, and maintain a sense of self with feelings of guilt, tension, and conflict. This balance may lead elite athlete mothers to feel pressured to compromise between these roles (Palmer and Leberman, 2009; McGannon *et al.*, 2015). Successful navigation of dual identities often involves reducing narrative tensions through strategies such as integrating roles e.g., bringing children to training sessions (Appleby and Fisher, 2009), or compartmentalising them by dedicating distinct quality time to each (Palmer and Leberman, 2009). When managed effectively sport participation can enhance the ability to focus on motherhood and motherhood can strengthen motivation and emotional resilience in sport thus, mutually reinforcing the athletic and mother identity (McGannon *et al.*, 2015; Martinez Pascual *et al.*, 2014; Palmer and Leberman, 2009). However, the challenges faced by elite athlete mothers in balancing these roles remain underexplored, highlighting the need for further research into this complex transitional journey.

Summary

At the start of this PhD by publication, it was understood that the transitional journey of elite athlete to elite athlete mother presents significant challenges, demonstrated through experiences of identity conflict and

loss, limited support, and a lack of knowledge on how to support pregnant athletes and the postpartum return to sport. Yet, the visibility and prevalence of elite athlete mothers was increasing, demonstrated in media representation, funding protection, and support from key personnel during pregnancy and postpartum. However, this is not universal across sports or professional clubs, and calls remain for advancements. Limited research attention and inconsistent support demonstrate more needs to be done to fully understand and support motherhood in elite sport and remove the need to choose between their sport or starting a family. Furthermore, the body of research on this topic is limited, lacking theoretical underpinning and longitudinal exploration. Therefore, the following body of work represents my contribution to developing further understanding of this transitional journey, the individuals who navigate it, and the environment in which it takes place. Accordingly, my PhD aims to provide a qualitative exploration of the transitional journey of elite athletes to elite athlete mothers and the environment they operate within. It is driven by the following research questions:

Research Questions

1. What are elite athletes' experiences across pregnancy and into motherhood?
2. How does the environment impact elite athletes' pre-conception to postpartum journey?
3. What are the gaps in supporting the transition to elite athlete mother, and what recommendations can be made for the future direction of support?

Theoretical considerations

Athlete mothers' often experience feelings of identity loss and a lack of support from those within their immediate and wider social environments (Burke and Stets, 2009; Spowart, Burrows and Shaw, 2010). To address my overarching research questions, I required frameworks which could support the interpretation of experiences and identity transition, how these are influenced by personal and environmental factors, and highlight gaps and recommendations for support motherhood in elite sport. The following sections outline two frameworks adopted: Identity theory and the Bioecological Model of Human Development. Combined these frameworks capture both individual negotiation and environmental influence on elite athlete mothers' personal experiences and identity transitions.

Identity theory

To address the lack of theoretical underpinning in previous research, an appropriate theoretical framework is required to conceptualise how athletes experience and make sense of the transition into motherhood. Identity theory provides a foundational framework for understanding how individuals define themselves through their roles, behaviours, and interactions within socio-cultural contexts. From a sociological standpoint, Identity theory suggests that individuals hold multiple, fluid identities associated with their various social roles (e.g., athlete, partner, mother), and that each identity carries with it a set of expectations, meanings, and behaviours (Stets and Burke, 2000). These identities exist within a salience hierarchy, where the relative importance or commitment to each identity determines which is most likely to guide behaviour in different environments (Stryker and Burke, 2000).

Within an identity hierarchy, athletic identity often dominates and influences behaviours and beliefs (Burke and Stets, 2009). Often becoming highly salient due to years of reinforcement through social recognition, structured environments, and goal-oriented training. The introduction of pregnancy and motherhood challenges this hierarchy, introducing new roles, emotions, behaviours, and expectations that may require identity renegotiation potentially leading to identity conflict. From a psychological perspective, Identity theory emphasises the process of self-verification, wherein individuals strive for alignment between their internal self-concept and external feedback from others (Burke and Stets, 2009). Discrepancies between expected identity standards and perceived identity such as bodily changes, reduced performance, or shifting priorities which may occur due to pregnancy and motherhood may create tension and motivate behavioural change.

The version of Identity theory adopted in this research interconnects these two strands, how external social structures influence the self and behaviour, and how the internal self and processes of self-verification shape action and adaptation (Stryker and Burke, 2000). Together, these perspectives allow for a deeper understanding of how identity is influenced both socially and personally. Here it is acknowledged that identity is fluid, multifaceted, and contextually situated. Thus, providing a theoretical lens to examine how elite athletes negotiate, develop, and maintain their identity in response to situational change of becoming a perinatal athlete and social expectations.

Bioecological model

Elite sport represents a complex and high-pressure cultural environment often characterised by hyper-masculine values, outcome-focused practices, and rigid performance norms (Pedersen, 2001). Within such cultures, success is tied to physical capability, discipline, and control, shaping how athletes construct and experience their identities, relationships, and bodies. Understanding how athletes navigate significant life transitions, such as pregnancy and motherhood, therefore requires a framework that can account for the interaction between individual experiences and multi-level environmental structures. The Bronfenbrenner's Social Ecological Model (SEM) (1977) provides a holistic framework for conceptualising human development within environmental systems. Demonstrated through five interconnecting levels of the interpersonal (personal characteristics such as gender, age, ability), microsystem (immediate settings such as family, training environments, and peers), mesosystem (interaction between the micro- and exosystems), exosystem (indirect structures such as organisational policies), and macrosystem (broader socio-cultural ideologies and laws), the SEM recognises how personal characteristics to broader socio-cultural structures collectively shape individual experience.

Bronfenbrenner subsequently advanced this model through the Bioecological Model of Human Development (Bronfenbrenner and Morris, 2006), introducing process–person–context–time (PPCT) to provide a more dynamic understanding of human development. In this framework, processes refers to the regular interactions between individuals and their environments, person includes individual characteristics such as motivation, identity, physicality, context comprises of multiple environmental systems influencing the person, and time the life-course development and wider socio-cultural change (Rosa and Tudge, 2013). The Bioecological Model has been applied across a range of domains to explain complex, socially situated phenomena such as athlete career transitions and dual-career pathways (Küttel *et al.*, 2018) and macrosystem laws and policies on public breastfeeding and maternity leave (Snyder *et al.*, 2021). Thus, demonstrating its capacity and suitability as a framework to explore the contextual dimensions of elite sport and motherhood.

Methodology

Research design

To address the research aim, and questions, I adopted a qualitative approach using both retrospective and longitudinal designs across the four studies. This enabled the exploration of the temporal experience of pregnancy and motherhood for elite athletes and aligned with my social constructionist paradigm. Methods such as semi-structured interviews and online surveys containing open-ended questions were integrated to gather rich, nuanced insights into the participants' experiences (Smith and Sparkes, 2016). Consistent with a social constructionist stance, this research design values subjective realities and the co-construction of knowledge between researcher and participant. Accordingly, a qualitative multi-methods approach was employed to address gaps in existing literature, introducing novel contributions across population, methodology, and topic. It also aligns with calls from prominent scholars, such as McGannon, Tatarnic, and McMahon (2019), for research to prioritise the psychosocial aspects of athlete motherhood, offering a rare, in-depth perspective of this unique population of elite athlete mothers.

Participants

My research position values the active involvement of individuals with lived experience in the co-construction of knowledge, rather than positioning participant as an object for observation. In total, this thesis involved 62 female participants (four professional dancers and 58 elite or professional athletes) six of which were para-athletes and 28 had experienced pregnancy.

Study one and two involved the same two elite athletes, an Olympic field athlete and a Paralympic track athlete. The athletes' careers spanned over two decades, with the Olympic athlete achieving national titles and Commonwealth Games medals, while the Paralympic athlete earned World and Paralympic titles, classifying both as successful elite performers (Swann, Moran and Piggott, 2015). Both athletes were former teammates of mine, creating a unique researcher-participant relationship where we shared experiences within the elite sport context. However, our differencing subjective realities and interpretations enable a deeper co-construction of knowledge. The athletes were approached to participate during the early stages of motherhood,

while training to return to elite sport postpartum prior to the release of the UK Sport pregnancy guidelines (2021).

Case studies enable in-depth exploration of phenomena within specific contexts, offering comprehensive insights into complex issues in a naturalistic setting (Stake, 1995; Crowe *et al.*, 2011). Aligned with my qualitative design and reflexive positionality, case studies value individual realities and social constructions (Sparkes and Smith, 2014), making them suitable for examining elite athletes' journeys from pregnancy to postpartum. Therefore, study three involved a case study of another former teammate and friend. We competed together for seven years and maintained our friendship following my retirement from elite sport in 2017. The participant became pregnant while already involved in a larger longitudinal qualitative study examining identity transition from sport to retirement. Following amendments to ethical approval and informed consent, she agreed to participate in this study. The participant was a British Caucasian female elite track athlete with a 12-year international career, earning relay medals at European, Commonwealth, World, and Olympic Games levels, classifying her as a world-class elite athlete (Swann, Moran and Piggott, 2015). She experienced a natural pregnancy and vaginal birth, with no complications.

Elite or professional status (referred to as high-performance or high-performers) was defined as competing in senior national or international non-friendly competitions, classified as "semi-elite" to "successful elite" (Swann, Moran and Piggott, 2015), or earning a primary income from dance. No exclusions were made based on discipline, classification (para or able-bodied), or motherhood status. A total of 51 eligible participants (46 able-bodied, five para-athletes), from 10 countries and 19 sports or dance disciplines, completed the online survey. Participants included 32 current and 19 retired high performers, with 13 mothers and four currently pregnant. Achievements ranged from national to Paralympic champion and freelance to Principal dancer. Based on survey analysis, participants were invited for semi-structured interviews through a targeted recruitment via social media and personal connections, with updated criteria requiring perinatal experience. Eight British, able-bodied participants from five sports/dance disciplines participated in the interviews.

Data collection

I adopted multi methods across the portfolio of work to gather retrospective and longitudinal data through semi-structured interviews and an online survey. These methods were informed by my research philosophy, which recognises diverse and individual realities and understands knowledge is socially and individually constructed through dynamic interaction between researcher and participant (Sparkes, 2016). Therefore, the semi-structured interviews employed open-ended questions to facilitate the social construction of rich, subjective knowledge through researcher-participant interaction, providing opportunity to uncover subjective truth (Smith and Sparkes, 2016). All interview guides were developed from existing empirical knowledge (e.g., Darroch and Hillsburg, 2017; Palmer and Leberman, 2009; Tekavc, Wylleman and Cecić Erpič, 2020), the research questions, and my understanding of the elite sporting environment. Aligning with my positionality and valuing subjective realities, interview guides remained flexible, allowing adaptation in response to topics covered within each participant's previous interview and the follow up on unanticipated insights (Smith and Sparkes, 2016).

Participants in study one and two each took part in three semi-structured interviews between two-months postpartum to approximately 16-months postpartum. The participant in study three completed five semi-structured interviews from two-years preconception, through to six-months postpartum. These interviews explored retrospective experiences of pre-pregnancy, pregnancy, and childbirth, alongside longitudinal experiences of pregnancy and postpartum. Interview duration ranged from 42.36 – 84.52 minutes, with a mean length of 56.35 minutes. My prolonged engagement across these longitudinal interviews allowed me to be immersed in the participants' experiences and develop in-depth insights of this social phenomenon (Smith and Sparkes, 2016). Interviews were conducted via online video call and face-to-face, each offering distinct strengths and limitations. Online interviews may restrict non-verbal social cues such as body language, which are more observable within face-to-face interviews (Smith and Sparkes, 2016). However, they may facilitate the discussion of sensitive subjects for example conception difficulties which participants might feel less inclined to disclose face-to-face (Smith and Sparkes, 2016).

Study four's survey was informed by prior research (Pullen, Miller and Plateau, 2021; Culvin and Bowes, 2021), my previous findings within this thesis, and the studies research questions. The first section focused on participant demographics, thoughts, and decisions regarding motherhood. The second section

included open-ended questions on topics such as perceived gaps in support and allowed participants to share additional information of personal importance. For those with perinatal experience, questions such as “What or who supported your decision to become an athlete mother?” and prompts to elaborate on their answers.

The multi-methods adopted can support the understanding of different aspects of recommendations for support within the high-performance environment. Thus, the findings of the survey in relation to recommendations for improvements were explored more deeply through the semi-structured interviews. These findings included medical and training guidance and education, financial support and security, cultural acceptance, supporting the change in personal identity, along with the opportunity to provide any additional information of importance to the participants for exploration in greater depth.

Data analysis

I adopted a reflexive thematic analysis (RTA) in study one, three, and four, as it is suitable for exploring subjective experiences, meanings, and perceptions such as athletes’ views of and journey through motherhood (Braun and Clarke, 2019). Aligning with my social constructionist research paradigm, RTA assumes meaning as co-constructed between participants and researcher (Braun and Clarke, 2019), making it an appropriate process for exploring socio-cultural narratives and identity transitions. This six-phase, non-linear process enables deep engagement with subjective meaning and welcomes researcher subjectivity as a positive resource in the research process. I was guided by recent clarification by Braun and Clarke (2019; 2021) to avoid “problematic practices,” “misconceptions,” and ensure reflexivity. Accordingly, I outlined my theoretical positionality leading to analysis, avoided coding reliability which assume objectivity and the removal of bias, and acknowledged that themes do not pre-exist within the data (i.e., emerge) but generated through the RTA (Braun and Clarke, 2021; Braun and Clarke, 2019). Intern, my subjectiveness was valued through journaling and engagement with a critical friend who supported reflexivity, disciplined subjectivity, and research quality (Braun and Clarke, 2019; Sparkes and Smith, 2014; Braun and Clarke, 2021). Inductive reasoning was applied across all three studies to systematically select, code, and organise data relevant to the research question. In study one and three deductive reasoning was employed during phase two and three of the RTA by engaging with Identity theory (e.g., How do identities work in their environment. The importance, commitment, and salience of

different identities in different environments and what standards are expected of different roles on a personal and social level?) to inform further develop and group of codes.

Wanting to broaden my experiences of different data analysis processes, study two employed Bengtsson's (2016) four-stage process as a form of content analysis. Here inductive reasoning was used to support comprehension of elite athlete mothers' experiences through engagement with the data. While this provided a structured process, it misaligned with my research positionality by advocating for triangulation which assumes an objective truth, requiring research congruency and disregards subjectivity (Tracy, 2010; Tracy, 2025). In response a critical friend approach was adopted as an appropriate alternative. Across all four studies, theoretical considerations took place within the discussion to provide an academic underpinning to the findings. The theoretical frameworks were selected to address each studies individual research aims (see appendix 8 - 11). Therefore, study one and three adopted Identity theory (Stets and Burke, 2000; Stryker and Burke, 2000) and study two and four the Bioecological Model (Bronfenbrenner and Ceci, 1994) as outlined within the earlier Theoretical considerations section.

Rigor

I adopted a flexible approach by integrating multiple criteria of rigor, including reflexivity, sincerity, credibility, and worthiness. These criteria reflect adaptable qualitative research practices and were tailored to align with my social constructionist positionality, a relativist approach to research quality, and the use of RTA, identity theory, and CNF. I enhanced reflexivity by acknowledging my own positionality and that of my co-authors, ensuring alignment between methodological processes, research positionality, and the broader aims of the studies (Sparkes and Smith, 2014). Whilst my first-hand insight into elite sport culture provided valuable insider knowledge, disciplined subjectivity was demonstrated through the inclusion of a critical friend from within, and in some cases external to my primary research team. This enhanced quality by challenging my own interpretations, scrutinising methodological processes, and ensuring coherency between study findings and the research aims (Smith and McGannon, 2018; Smith and Sparkes, 2016). In turn, insider knowledge was balanced with outsider perspectives to strengthen the interpretations, fostering reflexivity and rigor.

Sincerity was supported through a deliberate decision to not engage in triangulation, as this does not align with this body of works emphasis on subjective realities and the individual and social construction of knowledge. Alternatively, the quality marker of verisimilitude was adopted to enhance intellectual enrichment and ensure congruence with each study's aims and philosophical positionality (Smith and McGannon, 2018; Tracy, 2010). Furthermore, my subjective perspective was made explicit, and I engaged with critical friends to allow for the application of disciplined subjectivity (Sparkes and Smith, 2014), aligning with a social constructionist's standpoint and the perspective of identity theory, which accepts individual reality and the individual and social construction of knowledge rather than refuting them.

Credibility was achieved through substantial engagement with participants within study one, two, and three, allowing for the development of rich, contextual descriptions. Prolonged engagement also created opportunity for member reflections/respondent validation enabling new dialogue, reflexive elaboration, feedback, and believability of the research findings (Sparkes and Smith, 2014). To further enhance credibility, participant quotations were presented within the findings to heighten authenticity and reduced potential misrepresentation or marginalisation of participant voices (Smith, McGannon and Williams, 2016). Together, these processes provided thick descriptions of participants' experiences and supported naturalistic generalisability, whereby the findings may resonate broadly with a diverse audience, including elite athlete mothers, policymakers, and sports organisations (see Stake, 1995; Smith, 2018).

Finally, the quality criteria of worthiness, as identified by CNF methodology (Smith, McGannon and Williams, 2016) was address through this body of works timely and relevant focus on elite athlete who hold prestigious status within society, positioning them as role models (Davenport *et al.*, 2023a). Exploring how these individuals navigate dual identities as they transition into motherhoods is a topic of growing societal interest but limited academic exploration (Davenport *et al.*, 2023a). Furthermore, this research contributes novel insights, including the experiences of a para-athlete, CNF and longitudinal data. These contributions are discussed in the follow section.

Research contribution and significance

The methodology has detailed coherence across my positionality and study processes for addressing the aim of this body of work; to develop a qualitative exploration of the transitional journey of elite athletes to elite athlete mothers and the environment they operate within. My body of work has been developmental, where the previous study and the updated field informed the next study. I uncovered within study one, topics of scholarly interest related to funding status that diverged from the original study aims. Indicating an individual's experience may be influenced by funding status and their environment, which informed the research questions within study two. The physicality of pregnancy and postpartum appeared as a dominant feature which influenced experiences within the data from study one and two. This evoked the focus in study three to be on exploring the transition of physical identity in more detail. Calls continued for further support for elite athletes (Scott *et al.*, 2022; Davenport *et al.*, 2023a; Pullen, Miller and Plateau, 2021). Additionally, my connection with Dance Mama organisation turned my reading to research with professional dancers which significantly lags that within the field of sport. Therefore, study four expanded to examine the experiences of elite athletes and professional dancers referred to as high-performers alongside the systemic and economic influences shaping elite athletes' perinatal experiences and recommendations for support.

To further highlight the findings from across my core studies and their contribution to the growing field I present the following discussion across my three overarching research questions; What are elite athletes' experiences across pregnancy and into motherhood?; How does the environment impact elite athletes' pre-conception to postpartum journey; What are the gaps in supporting the transition to elite athlete mother, and what recommendations can be made for the future direction of support? The findings are positioned alongside the wider empirical psycho-social research on pregnancy and motherhood in elite sport published during this PhD journey.

Research question one: What are elite athletes' experiences across pregnancy and into motherhood?

Study one, and three collectively show how elite athletes negotiate multiple, fluid identities that often position athleticism and motherhood as incompatible yet, demonstrate the possibility of achieving success in

both roles. A central thread is the dynamic nature of identity, particularly the perceived loss of athlete status. These findings align with research with sub-elite athlete mothers (Spowart, Burrows and Shaw, 2010; Batey, 2014) and retrospective accounts of non-UK elite athletes (Palmer and Leberman, 2009; Appleby and Fisher, 2009; McGannon *et al.*, 2015), demonstrating challenges in balancing different roles, physical changes, and using sport as escapism. With athletes who view this transition as temporary often having positive experiences and becoming a “new” and improved athlete (Martinez Pascual *et al.*, 2014; McGannon, Tatarnic and McMahon, 2019).

Transitions are highly individual and influenced by factors such as pregnancy planning and financial status. My novel inclusion of an unplanned pregnancy in study one revealed a greater disruption of physical identity, negative emotions, and perceived loss of athletic identity than those experiencing a planned pregnancy. The inclusion of a non-funded elite athlete highlighted how individual characteristics such as funding and employment status shape identity. Here a third employee identity appeared, whereas the funded athlete separated herself into a mother, an athlete, and "being me". Study one further demonstrated a postpartum ‘triad’ of identities, whereby participants compartmentalise their sense of self into three interrelated identities: the athlete, the athlete mother, and the mother. This reflects the concepts of identity salience and hierarchy, whereby particular identities dominate thoughts, emotions, and behaviours in accordance with social expectations connected to the elite athletic identity (Stets and Burke, 2000; Stryker and Burke, 2000). Pressures to conform to socially constructed ideas of the “good mother” have been shown to induce guilt (Darroch and Hillsburg, 2017; Martinez Pascual *et al.*, 2014; Palmer and Leberman, 2009). In contrast, my participants did not experience guilt in maintaining training practices, instead they highlight necessary “selfishness” to be successful in sport and make family sacrifices worthwhile to provide for their families thus, sustaining an athletic and mother identity. My longitudinal exploration highlights the first six months postpartum as a critical period marked by uncertainty and fluctuations in athletic and physical identity. Study three illustrates a detailed identity shift from athlete, pregnant athlete, pregnant person, to postpartum athlete. A reconnection with athletic and physical identity occurs as bodily control, performance, and confidence increased. The complexity of this transition underscores the instability of identity during major life changes, particularly when these shifts challenge long-standing understandings of self, embedded in physical capability and achievement connecting to the second central thread of the embodiment of identity.

Embodiment of identity highlights how physical identity, shaped by body performance, purpose, and image, influences perceptions of incompatibility between motherhood and elite sport. Pre-pregnancy, athletes' physical identity aligned closely with performance expectations, discipline, performance goals, and the continuous pursuit of improvement (Ryan, 2018; Ahmadabadi, Shojaei and Daneshfar, 2014; McGannon, Tataric and McMahon, 2019). Study three extended this knowledge by demonstrating when the desire to become a mother became dominant, identity conflict occurred, reducing commitment and motivation to maintain athletic physicality. Yet uncertainty around conception and the need to maintain physical performance for competition, meant physical identity and training did not change. This demonstrates a shift in personal identity before physical identity and psychological strain connected to an unfamiliar lack of body control connected to (in)ability to conceive.

Previous research identified shifts in physical identity and body image during pregnancy and early motherhood caused by a disconnection between social constructs of elite athlete embodiment and training expectations (Martínez-Pascual *et al.*, 2016; Tekavc *et al.*, 2020). While athletic identity predicts physical activity (Reifsteck *et al.*, 2013), study three demonstrates a reciprocal relationship because changes in physical activity and training purpose also shape athletic identity through their impact on body image and purpose and motivation to train. Body image, performance, and purpose interacted continuously with training programme, training motivation, and training goals in a mutually reinforcing cycle. As physical changes became more pronounced across pregnancy, positive body image often declined, influencing both the perceived purpose and motivation for training which were once performance driven, now renegotiated as a means of maintaining physical and emotional wellbeing or preparing for childbirth. For some, this shift was accompanied by frustration and a perceived loss of control; for others, it brought a renewed sense of meaning and balance which has been previously noted (Davenport *et al.*, 2022; Bergström *et al.*, 2023; Martínez-Pascual *et al.*, 2017). These adaptations demonstrate how physical and psychological dimensions of identity are interconnected and responsive to bodily change. However, body purpose and training motivation remained unstable due to uncertainty surrounding the desire to regain or relinquish the athlete role, resulting in feelings of being “in limbo”.

While limitations occur due to exploration of only one discipline of sport and the participants are heterosexual, Western Caucasian females, these studies make several key contributions. Study one is the first to

provide longitudinal insights into these experiences, while study three remains the longest longitudinal study within this field to date. Inclusion of both para and non-para elite athletes, address a notable omission in previous literature, extending understanding of this hard-to-reach population. Prior to this research there was a notable absence of strong theoretical underpinning. Through the lens of identity theory this body of work advances understanding of how identity transitions are constructed, negotiated, and maintained throughout the perinatal journey. The findings of study three extend knowledge through a unique focus on physical identity and physical activity. Theoretically, the findings illustrate the coexistence of multiple identities beyond the mother and athlete, highlighting the complexity of elite athletes lived experiences. While previous literature has acknowledged physical change, study three was the first to examine physical identity and physical activity from pre-conception to postpartum, showing how these dimensions evolve simultaneously. Physical identity is found not to be a passive outcome of pregnancy-related change, but an active mechanism shaping training behaviour, motivation, body image, and identity salience across the perinatal journey.

To build on the findings from this research question, further longitudinal engagement with elite athletes as they transition into motherhood could inform more effective support practice such as flexible and informed training guidance and holistic support for both the athletic and mother identity. Additionally, research should seek broader perspectives from different sports, cultures, and sexualities. Although the inclusion of para-athletes brought a novel aspect to this body of work, experiences of those within the same high-performance environment appeared not to vary because of ability or disability. Therefore, the impact of the environment warrants further exploration and will be discussed within the next section.

Research question two: How does the environment impact elite athletes' pre-conception to postpartum journey?

Collectively study two and four's engagement with the bioecological model (Bronfenbrenner and Ceci, 1994) and identity theory in study three (Stets and Burke, 2000; Stryker and Burke, 2000) demonstrate motherhood in elite sport is a dynamic, multilayered, and individual transition shaped by time, context, and personal meaning-making. Consistent with existing literature (Pullen, Miller and Plateau, 2021; Scott *et al.*, 2022; Bergström *et al.*, 2023), ecological misalignment was a thread across study two and four, influenced by inconsistencies across the ecological system and evident through inadequate gendered contracts, policy, and

exploitative sponsorship practices. Building on this literature, my findings identify specific tensions between UK Sport policies intended to support athlete mothers and performance-driven funding practices, reflecting competing agendas and values. While macrosystems reflect both historical marginalisation and contemporary progression towards gender equality, macro- and exosystem change does not consistently translate to the microsystem and interpersonal level. Recent changes including maternity pay in English Super League contracts (BBC, 2022), policy supporting pregnant and postpartum dancers (Pickard and Ehnold-Danailov, 2023), and UK Sport funding protection for pregnant WCP athletes (UK Sport, 2023) represent progress, but may be inadequate in their implementation.

Study two particularly revealed how the UK Sport pregnancy policy and guidance co-existed with exosystem funding based on medal potential without accommodating for pregnancy or postpartum recovery of athletes outside of the WCP, resulting in the participant feeling unsupported despite international level representation. My inclusion of a Para athlete highlighted that while disability appeared legitimised within the system, motherhood remained marginalised, despite both being protected characteristics under the macrosystem Equality Act (2010). Overall, elite sport functions as a space of ecological misalignment. For some, this system supports pregnancy and motherhood, for others, particularly those without funding or strong interpersonal support, it became constraining and isolating.

Across all three studies, dynamic processes and relations were present, highlighting the importance of interpersonal relationships and proximal processes in shaping experience. Support from microsystem Athlete Support Personnel (ASP) mediated how policy intentions were enacted in practice. I extend Pullen, Miller, and Plateau's (2021) work on the impact of poor communication, by demonstrating effective, authentic, and consistent communication across system levels, leads to feelings of being supported and valued. However, these proximal processes were not universal as some appeared to lack authenticity and appropriateness. Additionally, exosystem policies might state flexibility and adjustments, yet the behaviours of key microsystem individuals were sometimes inconsistent with these values, reinforcing a culture that encouraged athletes to prioritise performance over motherhood. Funded athletes benefited from clear communication pathways, dedicated support, and microsystem adjustment to processes, easing their transition. In contrast, unfunded athletes often experienced fragmented or absent exosystem level communication, limited guidance, and expectations to return to a pre-pregnancy performance level despite limited support.

Study four further highlighted how proximal processes influenced pre-conception decisions, revealing that positive role models and open microsystem conversations increase perceptions of motherhood compatibility (Davenport *et al.*, 2022; Hellborg, 2024). Perceived compatibility was also shaped by specific demands such as high-risk or time-intensive disciplines reducing likelihood of pursuing pregnancy. Additionally, limited research and training guidance for athletes and support personnel resulted in uneven support and increased self-management for some athlete mothers (Davenport *et al.*, 2023b; Pullen *et al.*, 2023). Building on this work, I identified variation of proximal processes within the same environment and timeframe regarding qualification standards for championships. Athletes with funding and performance status, possess greater influence over qualification processes than those outside of the WCP who lacked comparable accolades, leverage, and agency. This illustrates an ecological system shaped by a top-down power dynamic, underpinned by managerialist performance-driven approaches.

Study three extended these finding by examining how environmental and relational factors shaped physical identity. Changes in athletic appearance caused self-consciousness and disconnection from the sporting environment, reflecting the strong link between athletic identity and social constructed norms of athletic appearance and capability (Burns, Weissensteiner and Cohen, 2019; Ahmadabadi, Shojaei and Daneshfar, 2014). Not having the expected “athletic body” created an interpersonal tension between ‘athlete’ and ‘mother to be’ identities. However, this study also demonstrated how microsystem level changes such as moving training groups and working with a new coach, shifted the relations, interactions, and expectations within the microsystem, leading to renewed motivation, emotional wellbeing, and facilitated psychological preparation for motherhood. These findings suggest that identity transformation was not a solely internal process but embedded within the ecological context.

Study two builds upon existing scholarship through the unique comparison between a funded and unfunded athlete, a distinction remiss from early work. This comparison revealed how funding structures and status shape access to support, and the postpartum return to sport, thereby influencing both athletic and maternal experiences. In doing so, the findings extend understanding of how structural inequalities operate within elite sport systems and directly affect athlete mothers lived realities. Furthermore, theoretical advancement through the integration of high-performers in dance (see study three), who despite similarities in performance demands

remain largely overlooked within research. Thus, providing insight into the lived experiences of this population. Study two is the first empirical research to utilise an ecological model within this field and to my knowledge the only study to engage with the bioecological model. This model moves beyond its more descriptive predecessor by integrating the concept of time, the active role of the individual, extending knowledge on how environment shape individuals, how individuals can shape their environment and providing detailed recommendations for policy, provision, and practice. Additionally, the innovative methodological approach of creative non-fiction, advocated by leading scholars (McGannon and Spowart, 2022), enabled the articulation of previously untold narratives and subjective experiences of athlete mothers, offering a new perspective, accessible accounts, and expanding mythological possibilities within this field (Smith and Sparkes, 2009).

This research addressing research question two is limited by study two's small sample size, and focus on the UK elite sport context, meaning some experiences may be underrepresented. While longitudinal interviews conducted close to key events facilitated reflection and reappraisal, the retrospective accounts within study four relied on memory retention which is subject to recall bias (Smith and Sparkes, 2016). Additionally, study four's online surveys supported a high level of anonymity, the exploration of sensitive topics, and geographical diversity. However, responses may have been restricted due to lack flexibility, and limit data collected from non-textual responses such as body language (Braun and Clarke, 2013). Future research building on the findings from research question two should examine athlete motherhood across different national systems, adopt longitudinal designs to capture change over time, and explore how intersecting identities and organisational perspectives shape ecological alignment in elite sport.

Research question three: “What are the gaps in supporting the transition to elite athlete mother, and what recommendations can be made for the future direction of support?”

Study two and four provided insights into the complex interplay of individual, interpersonal, organisational, and societal factors that shape elite athletes' transition to parenthood. Collectively, they provide evidence-based recommendations spanning the bioecological system, from microsystem interactions to macrosystem level policy and cultural norms.

A key thread was policy and structural support, due to inconsistent macro- and exosystem policies, creating inequities in funding, career progression, and access to support. Athletes experienced pressure to return to prepartum performance within unrealistic or poorly defined timelines, often dictated by personnel within the microsystem, highlighting the need for extended recovery and support (Davenport *et al.*, 2023a; Pullen, Miller and Plateau, 2021). I uncovered nuances regarding funding retention specifically the intersection between the timing of pregnancy and the next funding review, along with the need to outperform their pre-pregnancy self to retain funding. Adding flexible microsystem personnel who adapt postpartum return policies, grant greater interpersonal athlete autonomy in their return pathway, and foster positive psychological, physical, and social outcomes can support athletes. To address inequities, exo- and microsystem organisations should develop statutory pregnancy and postpartum policies, ensuring clear and equitable guidance across the macro- and exosystem (Titova, Davenport and Hayman, 2025; McHugh and Davenport, 2024). Furthermore, implementing a minimum 12-month postpartum funding review, independent of championship performances, and adaptable to training, performance, and competition scheduling would allow athletes to manage their transition to parenthood without compromising health or career progression.

Cultures that evoke silence on athletes who wish to pursue, or are on the motherhood journey, should be addressed to reduce feelings of discomfort and to encourage open conversations with micro- and exosystem personnel (Pullen *et al.*, 2023). Clear information on the benefits of informing support personnel and when, along with greater clarity and statutory guidance on the process of pregnancy disclosure are required (Titova, Davenport and Hayman, 2025). My high-performers called for athlete-led disclosure processes that support safeguarding athlete autonomy and confidentiality. These measures empower individuals to manage role identities as performers and parents, while ensuring that micro- and mesosystem ASP can respond effectively. Unique findings also highlight intersections with anti-doping regulations, suggesting adjustments to the testing windows and updating whereabouts, doping control personnel training and guidance to ensure empathetic procedures to safeguard athlete, dignity, and pregnancy discretion, and batch testing of pregnancy-related supplements.

Integrated multidisciplinary and peer support emerged as another critical thread. Coordinated, proactive, interdisciplinary support teams including psychologist, physiologist, and pelvic floor specialist are critical in facilitating the transition to parenthood (Davenport *et al.*, 2023b; Titova, Davenport and Hayman,

2025). My findings suggest these multi-disciplinary teams should be in place from preconception to postpartum, to combine expertise through coordinated, timely support, and communication creating individualised pathways, proactive birth preparation, and structured postpartum recovery both physically and psychologically.

Collectively, these measures create a cohesion at the mesosystem level that facilitates identity transition and positive experiences. These measures at macro- and exosystem levels may reduce identity strain and facilitate smoother transitions, demonstrating that structural, cultural, and educational interventions are interdependent.

Study four offered further specific recommendations for policy and practice across the bioecological model informed by high-performers (Bronfenbrenner and Ceci, 1994). The findings emphasised the importance of research and education in promoting safe, informed, and identity-affirming perinatal experiences, forming the final thread of education, cultural change, and identity transition. There remains a need for more comprehensive evidence-based research to move beyond anecdotal advice and guidance (Davenport *et al.*, 2022). My findings specifically emphasise that this research should span preconception, through individual trimesters, and extend beyond general recommendations to include definitive “don’ts” and exercises to support a healthy birth. To address gaps in micro- and exosystem ASP knowledge (Pullen, Miller and Plateau, 2021; McGregor *et al.*, 2025), research and education must enhance not only understanding but also processes of good practice (i.e., effective communication, interpersonal skills, and processes of confidentiality). Targeted stage-specific educational initiatives are essential for integrating performance and parental identities. While existing recommendations call for further research and education on fertility, menstrual cycles, safe exercise, and example of outcomes (Davenport *et al.*, 2022a; Titova, Davenport and Hayman, 2025), my findings extend this to provide specific directions for the process of this education. Educational strategies include the dissemination of targeted anti-doping education for high-performers and their support teams on conception and pregnancy, delivered through synchronous and asynchronous webinars and workshops led by role models and scientific experts, complemented by asynchronous online resources. Suggestions were made for tailoring the timing and content of these interventions, for example providing fertility focused education early in an athlete’s career and pregnancy related consent guidance at relevant stages, supports ongoing identity negotiation.

Cultural acceptance is critical for identity affirmation and high-performance sports culture is beginning to shift in acceptance of pregnancy and motherhood, with greater visibility supporting normalisation and addressing views of incompatibility within wider society (Davenport *et al.*, 2022a; Davenport *et al.*, 2022). My

recommendations expand to include the need to shift negative media narratives towards celebrating successful postpartum return to high-performance and promote open, and non-judgemental conversation to dispel the belief that motherhood must wait until retirement. This positioning may foster environments where dual identities as performers and parents are valued and normalised across the environment. Yet, there is little understanding of the wider cultural views of athlete pregnancy and parenthood which has led to my current research which I will discuss later.

Across these three threads, the findings emphasise that support for athlete motherhood must be integrated, systemic, and individually informed. Structural and policy reforms should establish equitable conditions and coordinated multidisciplinary teams to provide practical and psychosocial support across the exo-, meso-, and microsystem. While education and cultural change must enhance knowledge and promote inclusivity. By addressing perinatal support across these interconnected threads, high-performance environments can enable athletes to maintain well-being and excellence while successfully navigating the transition to parenthood.

Conclusion

Overall, this body of work has advanced the understanding of elite athlete mothers, a population previously underrepresented in research and practice, and contributed to challenging the outdated rhetoric of female fragility and societal expectations that equate motherhood with retirement from elite sport. My findings illustrate a complex identity transition experienced by athlete mothers, where their sense of self as an elite athlete initially diminishes but is subsequently renegotiated to integrate the dual identities of mother and elite athlete (e.g., study one). My research provides emerging evidence that it is possible for elite athletes to “have a baby and come back” (e.g., study two). While commonalities were observed in the experiences of athlete mothers, inconsistencies in policy, support systems, communication, and environmental pressures persist, emphasising the need for systemic change (e.g., study three). My findings suggest that while progress has been made, there remains scope to enhance the support structures, policies, and practices that enable elite athlete mothers to thrive both as athletes and as parents (e.g., study four). The next steps for research and my own journey will be outlined in the following future direction section.

My future direction

My PhD highlights within the UK context there are developments in policy, provisions and practice for supporting the attainment of motherhood for high performers yet, these developments remain insufficient. Additionally, misalignment between policy and practice, alongside the varied experiences of those within the high-performance environment, suggests inequitable treatment influenced by to key individuals operating within this environment, performance level, and funding status. Therefore, research needs to move beyond the exploration of high-performers perceptions and experiences of motherhood and superficial recommendations for policy improvement to a more comprehensive exploration of the finer details which are required within policies, along with informed and specific recommendations for provisions and practice. An example of such possibilities includes the recently published Australian Institute of Sports best practice recommendations to support elite athletes from preconception to parenthood (Titova, Tighe and Hayman, N.D). This guidance presents a biopsychosocial approach to supporting the perinatal journey, highlighting the effectiveness of a more comprehensive exploration (see Titova *et al.*, 2025a; Titova *et al.*, 2025b; Titova, Davenport and Hayman, 2025). Thus, the trajectory of my current and future research focuses on the critical areas identified as requiring further exploration to deepen understanding and develop biopsychosocial support solutions within the UK context. Firstly, I am building upon the findings from study four by utilising online surveys to investigate the complexities surrounding anti-doping rules and regulations for elite athletes who are navigating, or wish to embark on, the perinatal journey. The aim of this work is to generate insights that will inform a collaborative study involving athletes, medical practitioners, and anti-doping professionals. This study seeks to develop evidence-based policies, tailored provisions, and best-practice guidelines that support perinatal elite athletes, those considering this transitional journey, practitioners who assist them, and anti-doping personal.

Additionally, I am awaiting review of my next manuscript informed by the findings of study four which identified a call by elite athletes for greater cultural acceptance of pregnancy and parenthood in elite sport. As the perceptions of diverse individuals across the wider social context are yet to be explored, the aim of this study is to explore the cultural perceptions of elite athlete pregnancy and parenthood via a story completion approach. Exploring these broader cultural discourses through this creative and discursive mean is essential to understand assumptions around gender, performance, and parenthood within elite sport.

Personal reflections

My first attempt at a PhD was on a project that had been decided for me. At the time my motivation was largely “it would be “cool to be called Dr Massey.” On returning to higher education as a lecturer, I revisited the idea but changed direction and then changed direction again. I’ve always been resilient, stubborn, and determined to see things through, but I’ve realised that it’s okay to quit something if it’s not right. The research on elite athlete mothers was never initially intended to become a PhD but something that sparked my curiosity and felt important direction to take.

My experience as a female and an elite athlete has shaped my understanding of the challenges that female athletes face within elite sport. Combined with my personal connection to individuals experiencing the challenge connected to motherhood in sport not only reframed my academic focus but my sense of purpose as a researcher and advocate. Because of this academic journey, following the publication of study one I was contacted by the co-founder of the Active Pregnancy Foundation (APF) to join their Scientific Advisory Board (SAB). The organisation aims to support women to be physically active across conception, perinatal journey, and beyond. This is supported through the collaboration of the expertise of the researchers and practitioners within the SAB including the founder of Dance Mama who supports parents in dance. From here I delivered a webinar for their members and later joined their research advisory group before I formed a relationship with UK Sport to support diverse pathways to parenthood for WCP athletes.

When I first started lecturing, I genuinely feared supervising dissertations. Having conversations around methodology and methods with Colum would make my brain hurt. I had to stop meetings early because I could not take any more information or the complexity of it, probably not helped by being dyslexic and having the concentration span of a five year old. Yet, engaging with my supervisory team and experiencing the reviewing process have been pivotal to my growth in this area. Now, I enjoy a challenging conversation on methodology in the Student Life Building at lunch. I can support my students and provide a range of data collection, analysis, and theoretical underpinnings to help them explore their questions. This was a turning point in my confidence and autonomy as a researcher.

As I began exploring identity theory and applying the transitional journey into parenthood I recognised parallels with my own experiences of identity loss and body and performance changes when I retired from sport.

Increased attention is being paid to supporting the elite athlete transition into retirement on a psychological level; however, this focus appears to miss the transition into parenthood, where the emphasis is on the physical. Moving forward I want to continue to research within this area but explore opportunities to enhance my qualifications in psychology and maternal mental health. The aim is to deepen my understanding of this area and to expand collaboration opportunities to enhance athlete mother welfare. What may have begun as something that I know has been commented on as “Kelly going off doing random research” has proved to be a structured and meaningful journey because this time round it was about the purpose and the process not the three letters after my name.

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Appendices

Appendix 1: Paper one, two, three and four Co-Author Contribution Letter

Dr Amy Whitehead

Reader in Sport Psychology and Coaching, Coaching and Pedagogy Research Group Lead

Sport and Exercise Sciences, Liverpool John Moores University

4th December 2024

To Whom It May Concern:

I am writing to confirm Kelly Lorraine Massey's contributions to our studies in which I served as co-author, titled:

- 1) Pregnancy and motherhood in elite sport: The longitudinal experiences of two elite athletes.
- 2) 'Baby Ban' and 'we are not the same': creative non-fiction dialogue exploring pregnancy and motherhood for a funded Paralympic and unfunded Olympic athlete,'
- 3) "I'm still training for a big event:" A qualitative case study exploring an elite athlete's physical identity journey into motherhood.
- 4) 'I can have a baby, I can come back': High-Performing Dancers and Athletes Perceptions of Motherhood Compatibility and How to Support the Preconception to Pregnancy Announcement Journey

Throughout this project, Kelly made contributions in the following areas:

1. **Study Design and Conceptualisation:** Kelly was the lead in defining our research objectives and shaping the study framework, offering insights essential to the project's focus.
2. **Data Collection and Analysis:** Kelly was actively engaged in collecting data and applying analysis to ensure rigorous results.
3. **Manuscript writing:** Kelly led the writing of the manuscript.

As an estimate, Kelly's contributions equate to at least **70-80** % of the study's completion and its quality. Should further details be needed, please do not hesitate to contact me at [redacted].

Sincerely,

Dr Amy Whitehead

Reader in Sport Psychology and Coaching

Appendix 2: Paper two Co-Author Contribution Letter

Dr Colum Cronin

Reader PE and Sport Coaching

School of Sport and Exercise Sciences, Liverpool John Moores

04/12/2024

To Whom It May Concern:

I am writing to confirm Kelly Lorraine Massey's contributions to our study, titled "*'Baby Ban' and 'we are not the same': creative non-fiction dialogue exploring pregnancy and motherhood for a funded Paralympic and unfunded Olympic athlete,*", in which I served as a co-author.

Throughout this project, Kelly made contributions in the following areas:

1. **Study Design and Conceptualisation:** Kelly was the lead in defining our research objectives and shaping the study framework, offering insights essential to the project's focus.
2. **Data Collection and Analysis:** Kelly was actively engaged in collecting qualitative data, and applying narrative analysis to ensure rigorous results.
3. **Manuscript writing:** Kelly led the writing of the manuscript, was assisted by co-authors but was the lead designer of the narratives in the findings.

It is hard, and perhaps fundamentally flawed, to apportion accurate percentages to author contributions.

Nonetheless, I understand it is the convention and useful to assure authorships and independence of the researcher. On that basis, I estimate, Kelly's contributions equate to at least **70%** of the study's completion and its quality. Should further details be needed, please do not hesitate to contact me at [redacted].

Sincerely,

Colum Cronin

Reader in PE and Sport Coaching.

Appendix 3: Paper four Co-Author Contribution Letter

Dr Stephanie Hanley

Research Fellow

Department of Applied Health Sciences, College of Medicine and Health

University of Birmingham

13th November 2024

To Whom It May Concern:

I am writing to confirm Kelly Lorraine Massey's contributions to our study entitled, '*I can have a baby, I can come back*': *High-Performing Dancers and Athletes Perceptions of Motherhood Compatibility and How to Support the Preconception to Pregnancy Announcement Journey*, in which I served as a co-author.

Throughout this project, Kelly made contributions in the following areas:

1. **Study Design and Conceptualisation:** Kelly was the lead in defining our research objectives and shaping the study framework, offering insights essential to the project's focus.
2. **Data Collection and Analysis:** Kelly led on recruitment, data collection and the mixed-methods analysis of international surveys and semi-structured interviews producing a high-quality report.
3. **Manuscript writing:** Kelly led the writing of the manuscript.

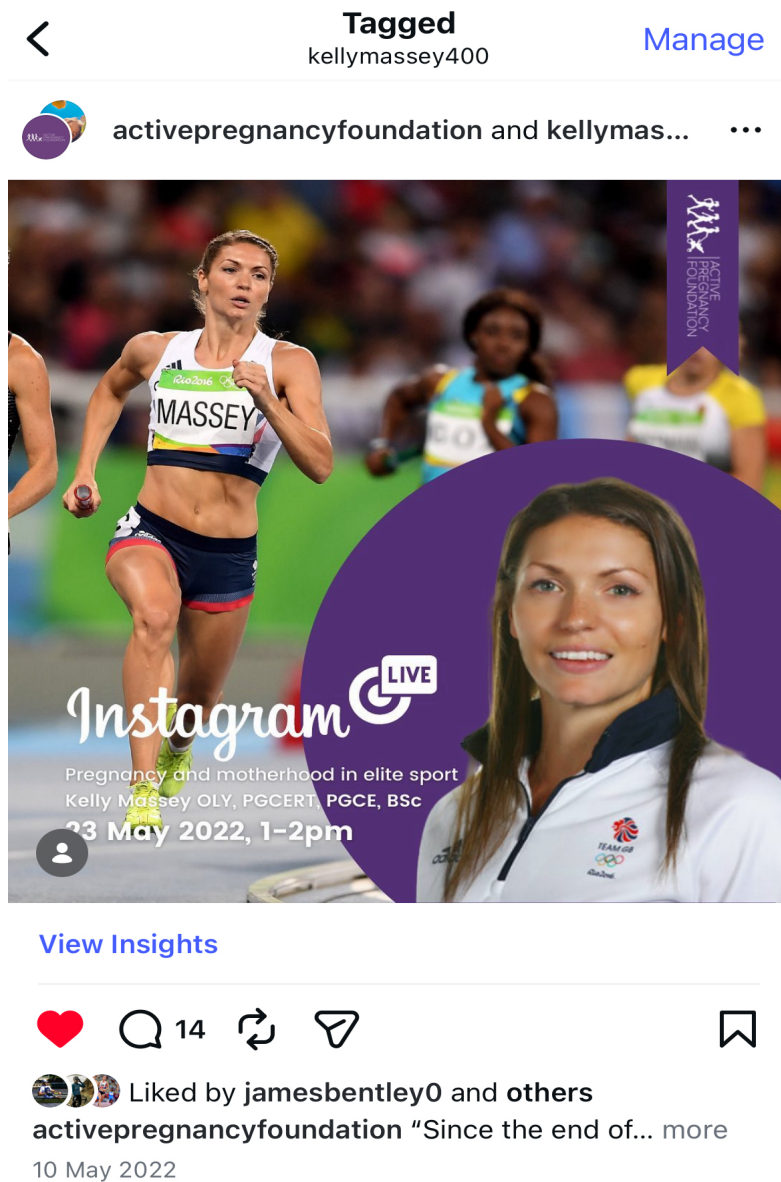
Their contributions equate to **80%** of the study's completion and its quality. Should further details be needed, please do not hesitate to contact me at [redacted]

Sincerely,

Dr Stephanie Hanley

Research Fellow, University of Birmingham

Appendix 4: Delivery of Active Pregnancy Foundation Pregnancy and motherhood in elite sport Instagram live webinar



Appendix 5: Joined Dance Mama Research Advisory Group

The screenshot shows a web browser window with the URL "BOARD & RESEARCH ADVISORY GROUP | dancedmama". The page content is as follows:

RESEARCH ADVISORY GROUP

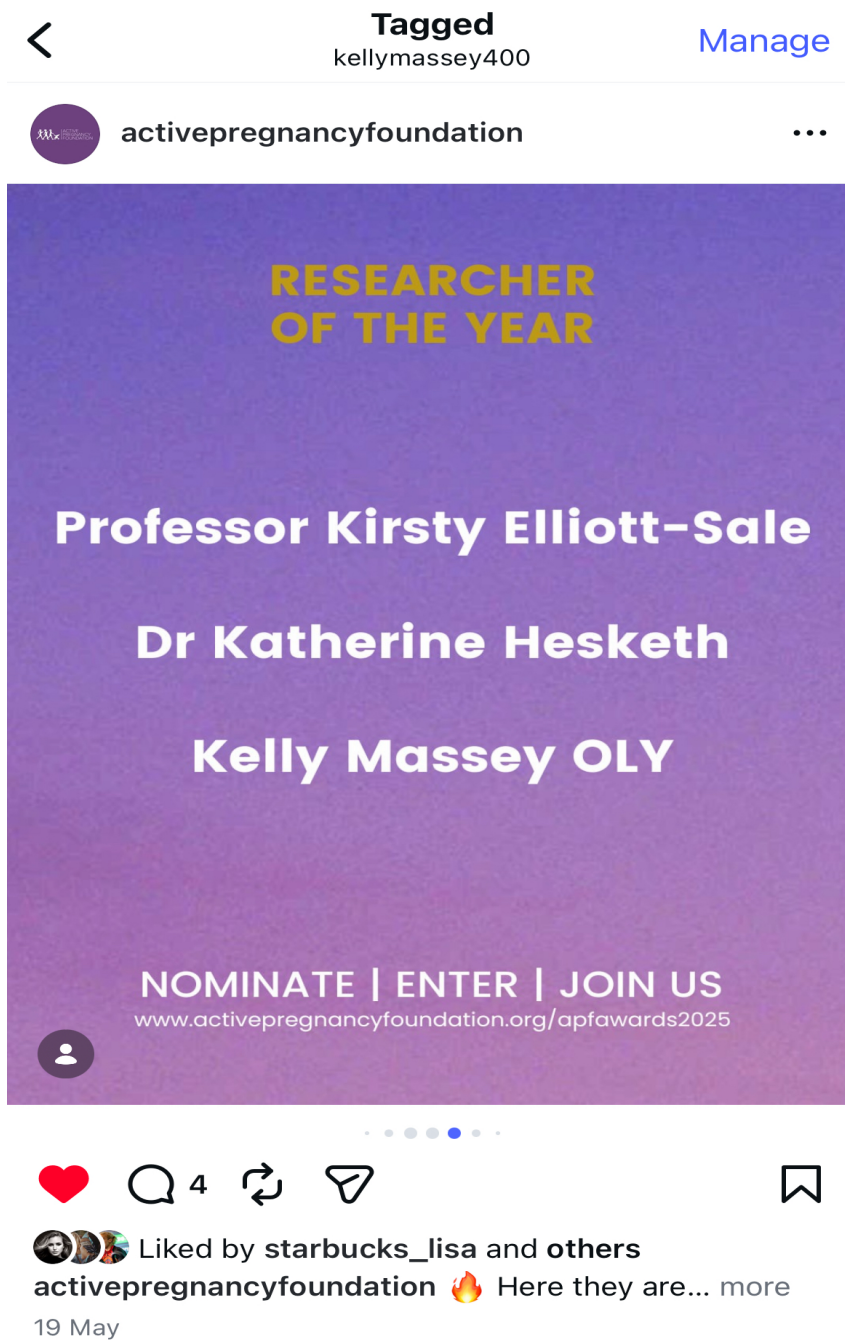
Dance Mama has its own Research Advisory Group, including the brightest minds in dance science, sports and exercise science and medicine to support our work as we strive to deliver the highest quality in all our endeavour. We are privileged to say that this group includes:

Tara Choudrie, MA Research Student (Dance and Parenting), Rambert School of Ballet and Contemporary Dance & Dance Artist
Claire Cordeaux - CEO, British Association of Performing Arts Medicine (BAPAM)
Dr Marilize De Vivo, CEO & Founder, Active Pregnancy Foundation, Senior Research Fellow, Canterbury Christ Church University
Dr Nicky Keay (NK), GP, Endocrinologist and Author
Rachael Kuik (RK) independent women's health and musculoskeletal physiotherapist and Pilates instructor (supporting ENB)
Kelly Massey, Olympic Athlete, Researcher, Liverpool John Moores University
Niamh Morrin PhD (NM), Female Exercise Specialist and Founder, SOMA
Karen Palmer MSc (KP), Director, Performing Arts Development
Edel Quin Msc FHEA (EQ), Programme Leader for Dance Science, University of Chichester
Erin Sanchez MSc (ES), Manager of Health Wellbeing and Performance, One Dance UK
Bill Taylor (BT), MSc PT, SRP, MCSP, Grad Dip Man Ther Canada, Taylor Physiotherapy

Additional Advisors:
Sinem Cakir - Non-profit leadership expert
Joce Giles - Director of Engagement, Sadler's Wells (and Former First Director)
Laura Godfrey-Issacs - Midwife, Co-Founder of Maternal Journal, Artist and Activist
Doug Hewitt - Brand Strategist and Co-Founder of People Made
Martin Lantear - Head of Performance Medicine, Scottish Ballet
Helen Laws - PhD researcher, Coventry University
Gendered Intelligence
Black Artists in Dance

Contact Us

Appendix 6: Shortlisted for Active Pregnancy Foundation Researcher of the year award



Appendix 7: NETBALLHer pre and post-natal content review with Active Pregnancy Foundation scientific advisory board

The screenshot shows a Google Sheets spreadsheet with the following content:

A1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	England Netball - NETBALLHer																				
2	https://www.englandnetball.co.uk/netballher/																				
3																					
4	Categories for review by the APF:																				
5	1. Pre & Post Natal																				
6	2. Pelvic Health																				
7																					
8	Reviewers:																				
9	Roslyn Cooke (PhD, c)	RC																			
10	Dr Marilze De Vivo	MDV																			
11	Gráinne Donnelly (PhD, c)	GD																			
12	Dr Medh Hillyard	MH																			
13	Dr Emily Lovett	EL																			
14	Kelly Massey (PhD, c)	KM																			
15	Lucy McCrudden (PhD, c)	LM																			
16	Dr Dane Vishnubala	DV																			
17																					
18	What are the considerations:																				
19	1. <i>Is the information accurate?</i>																				
20	Check that content aligns to current evidence, guidelines, and best practice.																				
21	2. <i>Is it clear?</i>																				
22	Ensure the language is straightforward for players, parents, and coaches, without unnecessary technical detail, and that the messaging remains consistent and coherent.																				
23	3. <i>Is it appropriate for the audience?</i>																				
24	Ensure the content provides general guidance rather than personalised medical advice and is appropriate for a diverse audience, with clear distinctions in language or explanation where different groups require it.																				
25	4. <i>Is the tone supportive?</i>																				
26	Ensure the tone is balanced, inclusive, and sensitive to different pregnancy and postnatal experiences.																				
27	5. <i>Does it make sense for netball?</i>																				
28	Check that examples, explanations, and suggestions align with real netball training and playing environments.																				
29	6. <i>Are signposts clear?</i>																				
30	Confirm the content gives clear direction on where someone can find more information or support if needed.																				
31	7. <i>Are images appropriate?</i>																				
32	Ensure images representing pregnancy and the postnatal period are respectful, relatable, and diverse.																				
33	8. <i>Are linked resources credible?</i>																				
34	Confirm that external links and referenced resources are reliable and up to date.																				
35	9. <i>How easy is it to navigate?</i>																				
36	Ensure the content is well organised, easy to locate, and functions smoothly across both mobile and web platforms.																				
37	10. <i>What is missing?</i>																				
38	Identify any gaps in the content, including missing information, unclear explanations, or areas where additional examples, resources or guidance would improve understanding.																				
39																					
40	Due Date: 11 February 2026																				
41																					

Appendix 8: Study one Pregnancy and motherhood in elite sport: The longitudinal experiences of two elite athletes

Massey K, and Whitehead A. (2022). Pregnancy and Motherhood in Elite Sport: The Longitudinal Experiences of two Elite Athletes. *Psychology of Sport and Exercise*, 60 [DOI](#) [Author Url](#) [Publisher Url](#) [Public Url](#)

Appendix 9: Study two Pregnancy and motherhood in elite sport: The longitudinal experiences of two elite athletes

Massey KL, Cronin CJ, and Whitehead AE. (2024). 'Baby Ban' and 'We are not the same': Creative non-fiction dialogue exploring pregnancy and motherhood for a funded Paralympic and unfunded Olympic athlete. *Qualitative Research in Sport, Exercise and Health*, 16 [DOI](#) [Publisher Url](#) [Public Url](#)

Appendix 10: Study three “I’m still training for a big event:” A qualitative case study exploring an elite athlete’s physical identity journey into motherhood

Massey K, and Whitehead A. (2025). “I’m still training for a big event:” A qualitative case study exploring an elite athlete's physical identity journey into motherhood. *International Journal of Sport Psychology*, [Publisher Url Public Url](#)

Appendix 11: Study four ‘I can have a baby, I can come back’: high-performing dancers and athletes perceptions of motherhood compatibility and how to support the preconception to pregnancy announcement journey

Massey K, Hanley S and Whitehead A. (2025). ‘I can have a baby, I can come back’: High-Performing Dancers and Athletes Perceptions of Motherhood Compatibility and How to Support the Preconception to Pregnancy Announcement Journey. *Sport in Society*, [DOI](#)