



## Searching for ontological security: women's experiences leading to high drive for muscularity

Christian Edwards, Győző Molnár & David Tod

**To cite this article:** Christian Edwards, Győző Molnár & David Tod (2021): Searching for ontological security: women's experiences leading to high drive for muscularity, Qualitative Research in Sport, Exercise and Health, DOI: [10.1080/2159676X.2021.1969995](https://doi.org/10.1080/2159676X.2021.1969995)

**To link to this article:** <https://doi.org/10.1080/2159676X.2021.1969995>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 09 Sep 2021.



[Submit your article to this journal](#)



Article views: 605




[View related articles](#)



[View Crossmark data](#)

# Searching for ontological security: women's experiences leading to high drive for muscularity

Christian Edwards <sup>a</sup>, Győző Molnár <sup>a</sup> and David Tod <sup>b</sup>

<sup>a</sup>School of Sport and Exercise Science, University of Worcester, Worcester, UK; <sup>b</sup>School of Sport and Exercise Sciences, Liverpool John Moores University, Liverpool, UK

## ABSTRACT

Women with high levels of drive for muscularity (DFM) may display what could be perceived as non-normative corporeal desires because their commitment to muscle may contrast Western societal expectations of femininity. Little, however, is known about women's experiences with high levels of DFM. Thus, we explored the stories of women with high DFM and disclose the socio-cultural and personal influences shaping this desire. In-depth life-history interviews were undertaken with 10 females who had extreme scores on the Drive for Muscularity Scale. Participants' stories focused on a set of early social interactions, in which they were exposed to dominant social narratives of femininity. As a result, they felt pressured to comply with contemporary appearance-related gender norms. Such pressures often manifested in situations where their body was perceived to be outside of gendered contours. Participants' narratives also identified the lack of control they had over their circumstances. In turn, participants revealed that they developed a strong desire to gain control over their situation and, as a result, they responded by 'tightly controlling' and shaping their corporeal self as per gendered expectations. However, through a range of problematic moments (e.g. relationship breakdowns), participants' gendered ontological security became unsettled. Consequently, these disruptions prompted them to reconsider their relationship to embodiment and its connection to their circumstances. This realisation led to the emergence of a muscularity-focused coping strategy eventually leading to high levels of DFM. Findings reveal that, similar to men, women in this study also use muscle to cope with and negotiate life events.

## ARTICLE HISTORY

Received 19 August 2020

Accepted 16 August 2021

## KEYWORDS

Drive for muscularity;  
ontological security;  
women's experiences;  
identity; life-history  
interviews

## Introduction

The drive for muscularity (DFM) reflects a desire to increase muscularity levels (McCreary and Sasse 2000). Much of the research in this field has followed a traditional, binary gender logic, and has often exclusively focused on men (Edwards, Tod, and Molnar 2014). The focus on men may have been because a muscular physique is historically associated with masculinity, the core features of which traditionally were not applied to feminine corporeal standards (Morrison, Morrison, and McCann 2006). Such corporeal standards for white Western women (here, it is important to note that body ideals vary by social, historical, and cultural factors) were often associated with a small waist, slender body, and low body fat (e.g. Capodilupo and Kim 2014; Garner, Olmstead, and Polivy 1983; Lovejoy 2001; MacNeill and Best 2015; Swami et al. 2010).

**CONTACT** Christian Edwards  [C.Edwards@worc.ac.uk](mailto:C.Edwards@worc.ac.uk)  School of Sport and Exercise Science, University of Worcester, Henwick Grove, Worcester WR2 6AJ, UK

© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.  
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

Contemporary literature, however, may suggest a shift in beauty ideals, bodywork, and gym practices towards a toned Western feminine ideal and there is a growing number of studies on women's bodybuilding, strength training, and the drive for, focus on and ownership of muscle (e.g. Hockin-Boyers, Pope, and Jamie 2020; Reade 2016; Steinfeldt et al. 2011; Tiggemann and Zaccardo 2018; Walters and Hefferon 2020). Regardless of this shift, women with extremely high levels of DFM may continue to display what can be perceived as non-normative corporeal desires and appearance because this bodywork may contrast Western societal expectations of femininity (Choi 2003; Shilling and Bunsell 2009). By building muscle and breaking from the traditional corporeal gender logic, however, women can subvert oppressive ideals of femininity and, in turn, achieve some form of liberation and empowerment (Heywood 1998; Krane et al. 2004; Lowe 1998; Walters and Hefferon 2020). As such, for some women, 'actions in the gym' and the decisive development of muscle can be seen as a form of gender activism and resistance to a physicality they have been 'told' to adopt, but is not their embodied self (Heywood 1998, 59). By engaging in muscle building in the gym, an environment traditionally occupied by men, women can challenge and re-negotiate gendered spaces thereby resisting the oppression of 'othered' bodies (Bunsell 2013; Coen, Rosenberg, and Davidson 2018). In doing so, women may become 'more confident about their positions in the world ... and less bounded by the limits ... [society has led them to] internalise' (Heywood 1998, 60). There is now burgeoning research that evidences the empowering influence that gym activities and muscle building have on women's lives (e.g. Hockin-Boyers, Pope, and Jamie 2020; Walters and Hefferon 2020; Wesely 2001). For instance, one of Bunsell's (2013, 113) participants disclosed that 'workouts are empowering in themselves ... They allow you to see how far your body can be pushed with no restrictions'.

Research also notes, however, that muscle-orientated body projects may be (or can become) disempowering (Bordo 2004; Lowe 1998; Shilling and Bunsell 2014; Shea 2001). Bordo (2004, 151), for example, identifies how female bodybuilders' talk of their corporeal self resonates with 'typical anorexic themes'. As such, Bordo (2004) maintains that bodybuilding is not an exclusively liberating activity because of the obsessive and controlling practice required in the crafting of the 'perfect' physique. That is, by engaging in muscle-focused body projects, where individuals must tightly control their weight and body fat, women may re-conform to traditional corporeal expectations of femininity (Bordo 2004; Scott 2011; Shea 2001). Thus, current views highlight that women's engagement with muscle building is complex and can empower and liberate as well as sanction and control.

Across this body of work, researchers have developed a variety of instruments to assess an individual's desire for a particular physique. The measure most often used to evaluate the DFM is the Drive for Muscularity Scale (DMS; McCreary and Sasse 2000), which assesses an individual's commitment to muscularity by measuring their desire for, and behaviours targeted at developing muscle. Consistent with other corporeal desires (e.g. the Drive for Thinness, Garner, Olmstead, and Polivy 1983), the DFM exists along a continuum from low to high and reflects the complexity of meaning regarding muscle building. High DMS scores have been interpreted as unhealthy because of associations with risky body modifying behaviours and social impairment, such as disordered eating, steroid use, and muscle dysmorphia symptoms (e.g. de Carvalho, dos Santos Alvarenga, and Ferreira 2017; Leone 2009; Robert, Munroe-Chandler, and Gammage 2009). Having a DFM, however, may not inherently be harmful, and women with high DFM scores may not automatically be at risk of developing unhealthy consequences. Some level of the DFM may, for example, help a person function in their social context, find self-expression, and achieve the many benefits associated with building muscle (e.g. Heywood 1998). On the other hand, due to a variety of interacting social factors, the DFM may become all-consuming, resulting in obsessive muscle-focused preoccupation (e.g. Leone 2009). Thus, it can be argued that women with an extremely high level of DFM may find themselves in a double bind: they are driven to meet their own desires for a muscled physique (that may include harmful behaviours) while trying to manage the variety of social perceptions of their highly muscularised bodies. To incessantly balance both their needs and social expectations may lead to stigma and marginalisation (e.g. Shilling and Bunsell 2009). Experiences of marginalisation

coupled with potential high DFM-related negative health consequences may have a substantial bearing on women's quality of life. Given the research lacuna around understanding women's experiences with high DFM, here we pay attention to life experiences that lead some women to develop an elevated DFM.

Existing qualitative studies have examined muscular body-image related issues in female athletes, bodybuilders, exercisers, and weight trainers (Bennett et al. 2017; Brace-Govan 2004; Bunsell 2013; Howells and Grogan 2012; Lowe 1998; Robert, Munroe-Chandler, and Gammage 2009; Roussel and Griffet 2000; Sisjord and Kristiansen 2009; Shilling and Bunsell 2009, 2014; Steinfeldt et al. 2011). These studies have not specifically focused on the process leading to high DFM, and have had different aims. For example, research has often centred on the lives, competition environment, and the day-to-day negotiations of female athletes, bodybuilders and/or weightlifters and the experiences leading women to these activities (e.g. Brace-Govan 2004; Bunsell 2013; Bunsell and Shilling 2012; Lowe 1998; McGrath and Chananie-Hill 2009). Female bodybuilders, athletes, and exercisers may have a high level of DFM, but previous qualitative studies focused on women have not specifically assessed that or explored the process leading to high levels of this desire. A unique knowledge contribution of the current work is that we focus specifically on the DFM and selected participants because they empirically demonstrated that they have a high desire for muscle. In turn, this work centres on a population that may be under-represented in the current literature.

Nevertheless, existing investigations provide some insights into the complex relationship between women and their desire for a muscular physique. In Bunsell's (2013, 62–63) work, for example, participants disclosed a diverse range of events that led them to bodybuilding, such as using bodybuilding as a 'cathartic and therapeutic' route for recovery from eating disorders. As such, Heywood (1998, 17) identifies bodybuilding as a form of '... embodiment that helps women deal with [a broad spectrum of] gender-related issues'. Here, it must be noted that muscle-orientated body projects may not be a maladaptive or unhealthy response, but they may be an active and powerful way women can realise their potential (Heywood 1998). Also, for most women, a high DFM may not result exclusively from negative gender-related issues, but it may be a consequence of the positive outlook, empowerment, and satisfaction obtained from engaging in bodybuilding and related activities (Heywood 1998; Lowe 1998; Roussel and Griffet 2000; Walters and Hefferon 2020). It remains underexplored, however, how women embody this corporeal desire in a society where their body is deemed 'other' and how they manage and renegotiate their identity leading to high levels of DFM.

### *Exploring muscle-orientated body image: The concept of ontological security*

In extending knowledge on body image drives, researchers have been guided by various social and psychological frameworks (e.g. Cash 2011; Fredrickson and Roberts 1997; Thompson et al. 1999). Consistent with our focus and guided by our participants' stories, Giddens (1990) concept of ontological (in)security is helpful in unfolding events and experiences leading to high DFM. Ontological (in)security has only been marginally identified in the muscle-oriented body image literature (e.g. Brown 1999; Bunsell 2013) and, thus, it is essential to explain some of its key facets. Giddens (1990, 92) defines ontological security as 'the confidence that most human beings have in the continuity of their self-identity and in the surrounding social and material environments of action'. Contemporary society is characterised by uncertainty, and, thus, to maintain and preserve ontological security, individuals may seek ways to assert control over their life (Giddens 1990, 1991). Today, body modification and engaging in 'body projects' may be a way individuals aim to assert control (Bunsell 2013; Shilling 2013; Worthen and Baker 2016). In keeping the body within gendered contours (e.g. through developing the contemporary hegemonic ideal), for example, individuals may create their desired (or required) self-identity which, in turn, can help provide some security to/over their everyday existence. As a result, being more ontologically secure, Giddens suggests, enables individuals to adopt a more 'business as usual approach' to social life (as quoted in Shilling 2013,

160). Ontological security, however, is under constant threat. Events that challenge and prevent the continuity of one's self-identity and everyday routine may tarnish, erode, and destruct ontological security, resulting in anxiety and the potential for personal chaos and crisis (Giddens 1990, 1991). Such problematic events may lead to epiphanic-type moments (i.e. an existential crisis) that, in turn, result in a form of coping mechanism targeted at maintaining and protecting a person's integrity and identity, thereby preserving their security. Existing accounts highlight how bodybuilding, and other ways of deploying the body, may serve as a coping mechanism for those social groups which have been marginalised (e.g. Brown 1999; Bunsell 2013; Klein 1993; Majors and Billson 1993).

Such body and, in this case, muscle-oriented coping mechanisms may be particularly relevant because, as Giddens (1991, 56) identifies, 'the body is . . . not simply an "entity", but is experienced as a practical mode of coping with external situations and events'. As such, in the development of muscle, women may appear strong, which in turn, may help them actively manage their external situations and may serve to protect their ontological security. The development of a muscular protective cocoon and the accentuation of that may, therefore, allow the concealment of personal anxiety from the external view. Thus, the development and ownership of muscle may be a way for women to construct a specific public self-identity that serves to protect their ontological security.

In summary, the purpose in the current study was to provide an in-depth exploration of how women storied their journeys to developing high DFM and expose the key events and perceived personal, social, and cultural processes that led to this desire. To reveal these processes, we adopted a narrative life-history approach, the details of which we outline below.

## Method

### *Study design and philosophical foundations*

To explore the personal stories of women with high levels of DFM, we adopted a narrative life-history approach (Papathomas 2016). This approach has advanced knowledge in a variety of body and identity-related fields by revealing the experiences that moved individuals to develop specific attitudes, addictions, and corporeal drives (Carless and Douglas 2010; Papathomas and Lavalée 2012; Patching and Lawler 2009). Due to the complexity of women's experiences and reasoning behind high levels of DFM, narrative life-histories provide a platform for women to tell their own stories (Carless and Douglas 2017; Papathomas 2016; Smith and Sparkes 2009). As such, asking participants to share their stories enables them to communicate their reality (Papathomas 2016). These personal accounts provide deep insights into an individual's personal experiences, their course of life events, what life was/is like for participants, and further allows researchers to focus on both personal and social factors (Carless and Douglas 2017). Thus, this approach was selected because it allowed participants to provide detail to describe the multitude of events and processes leading to their high DFM.

Our narrative approach is underpinned by interpretivist paradigm that entails ontological relativism and epistemological social constructionism (Papathomas 2016). Consistent with these foundations, in the current work, we aimed to understand the processes participants believed led to their DFM. In addition, we acknowledge that our data, and its interpretation, is socially constructed. Consequently, our presented narrative is a co-construction of participant and researcher interactions.

### *Participants*

The sample consisted of 10 women (Mean age = 31.72, SD = 6.22, years), recruited from various gyms via criterion-based and snowball sampling. To be included, women had to achieve a score of  $\geq 3.2$ , out of 6, on the Drive for Muscularity Scale (DMS, McCreary and Sasse 2000). Typically, DFM studies that include women have not sampled participants with high or extreme DFM scores. For example, the average DMS score in papers sampling female athletes, bodybuilders, and students from Western

countries is 2.17 (SD = 1.06; e.g. McCreary et al. 2004; Leone 2009; Zelli, Lucidi, and Mallia 2010). Thus, our choice of selecting women with a score of 3.2 or above represents a high level of DFM. The average DMS score in the current sample was 4.27 (SD = 1.02), indicating that participants had an extremely high DFM. In fact, the current sample had similar DMS scores to men with a DFM preoccupation and a woman experiencing muscle dysmorphia, a form of body dysmorphic disorder (Edwards, Molnar, and Tod 2017; Leone 2009). Our findings and interpretations are, therefore, presented within that context. Nine participants disclosed that they had been clinically diagnosed with a (or had a comorbid diagnosis of) mental health disorder(s) and/or eating disorder(s), including: depression (n = 6 participants), anxiety and/or obsessive-compulsive disorder (n = 6 participants), anorexia nervosa (n = 3 participants), bulimia (n = 3 participants), and body dysmorphic disorder (n = 1 participant). Three participants reported being current anabolic steroid users and all participants identified that they currently took supplements, including protein, vitamins, and fat burners. Seven participants described their sexual orientation as heterosexual, two as bisexual, and one as gay. Two participants were married or in a civil partnership, six in an intimate relationship, and two were single. All participants were Caucasian and nine identified themselves as British and one as Eastern European. Five participants were competitive bodybuilders, one non-competitive bodybuilder, three non-competitive fitness lifters, and one rugby player. Participants trained with weights an average of six times per week.

In selecting our sample, we were guided by the information power concept (see Malterud, Siersma, and Guassora 2016). This concept suggests that the more information that the sample of participants holds relevant to the research aims, the fewer participants are required (Malterud, Siersma, and Guassora 2016). Malterud, Siersma, and Guassora (2016, 1753) suggest that a sample with appropriate information power depends on the: '(a) aim of the study, (b) sample specificity, (c) use of established theory, (d) quality of the dialogue, and (e) the analysis strategy'. Based on this model, we concluded that our sample and data is sufficient to meet our aims because: (a) we had a specific research question, (b) we had a specific sample and prolonged our engagement in the participants' context (in the rigour and trustworthiness section, we expand on how our sample was specific and how we ensured quality of dialogue), (c) our interpretation of women's stories is guided by established theory, and (d) we engaged with in-depth narrative analysis of women's stories and not, for example, a cross-case analysis which may require a larger sample size.

### **Data collection**

After gaining ethical approval, data were collected through semi-structured interviews. Interviews occurred at convenient times and locations for the participants. To accommodate the demanding lifestyle of some participants, three interviews were conducted via video conferencing. This interview method was preferred by these participants because it did not disrupt their daily exercise-focused routine.

Following gaining informed consent and initial rapport building, interviews began with a set of grand tour questions (i.e. what is your ideal body, and can you tell me about the experiences you have had that have made you think about your body in this way?). As such, participants were asked to give a verbal account of their life experiences from childhood to the present day (Carless and Douglas 2010; Wolcott 1994). Interview prompts were informed by existing body-image related theoretical models and frameworks (e.g. Cash 2011; Thompson et al. 1999), but predominantly participants led the conversation and disclosed information that they thought important to their experience. In the interviews, participants were presented with a timeline to record a graphic sequence of their events and experiences (Adriansen 2012). This timeline helped participants identify what had happened at specific points in their life and to contextualise their experiences. Interviews lasted, on average, sixty-five minutes in duration. Following interviews, informal conversations



continued and these exchanges were recorded as field notes, the content of which is used to enrich the narratives presented in the Results. In these post-interview interactions, Christian (the first author) often collected additional rich data from the participants.

### ***Rigour and trustworthiness: a relativist approach***

Consistent with contemporary approaches to qualitative research, here we adopted a relativist stance (Burke 2016; Sparkes and Smith 2009; Smith and McGannon 2018). In line with this standpoint, we identified the following principles to guide our work. We aimed to: (a) ensure we understood the participants and their lives, (b) demonstrate to participants that we cared about them and their experiences, (c) provide a narrative that would advance knowledge, (d) provide information that resonates with readers' personal experiences, and (e) provide useful information for researchers and practitioners. Based on these guiding principles, the criteria we decided to address included: credibility, rich rigour, resonance, and impact (Burke 2016; Sparkes and Smith 2009; Smith and McGannon 2018). We ensured we met these benchmarks by: (a) having specific inclusion criteria to identify participants with and extreme DFM (during data collection we also interviewed two other gym trained women with low DMS scores. The stories told by these two women were different to the narratives of the participants included in the current work), (b) prolonging our engagement during and post data collection in the participants' gym environment, (c) becoming aware, through frequent team meetings and reflective diaries, of the biases we held, (d) presenting, and receiving feedback on the narrative story in academic circles, and (e) discussing the narrative with other people with high DFM on bodybuilding internet forums.

### ***Data analysis***

Interviews were transcribed verbatim and a thematic narrative analysis was undertaken (see Smith 2016, 263–264). This analysis allowed us to identify central themes in participants' stories and expose the events and interactions that shaped their experiences. Initially Christian immersed himself in the women's stories, this 'narrative indwelling' involved reading and re-reading transcripts and noting initial thoughts at the margin of transcripts (Smith 2016, 264). This period helped him to start to think with the story of each participant. To 'identify narrative themes and thematic relationships', Christian mapped the key processes identified by each participant (Smith 2016, 264). To identify the pattern of events, Christian created a pictorial representation of each participant's story. In this process, he asked: 'What is/are the common themes/ thread(s) to each story?' and 'What key aspects/moments/ experiences/interactions does each participant describe in their story?' These narrative maps helped him to become more familiar with the sequence of events in each story and thread together a narrative pattern. An example of a participant's narrative map is provided in Figure 1. In this process, by continually revisiting each interview transcript, Christian started to group key aspects of each participant's story. The narrative pictorial representations generated helped him to keep participants' overall story intact. By combining participants' stories, a master narrative of the processes leading to high DFM for all participants was generated. Merging these stories helped Christian reflect on key questions of analysis while keeping the focus on the whole sample. Throughout this process of analysis and interpretation, Győző and David acted as discussants, challenging Christian's interpretation of participants' stories.

### ***Reflections on theoretical lenses***

During data interpretation, we explored a range of potential theories and related research. In our initial data interpretation, we lent towards Bourdieu's (1986) work, paying attention to the concept of capital. In these women's stories about their adolescent experiences, it appeared that many of the participants aimed to develop a form of *feminine capital*. However, through extensive discussions, we

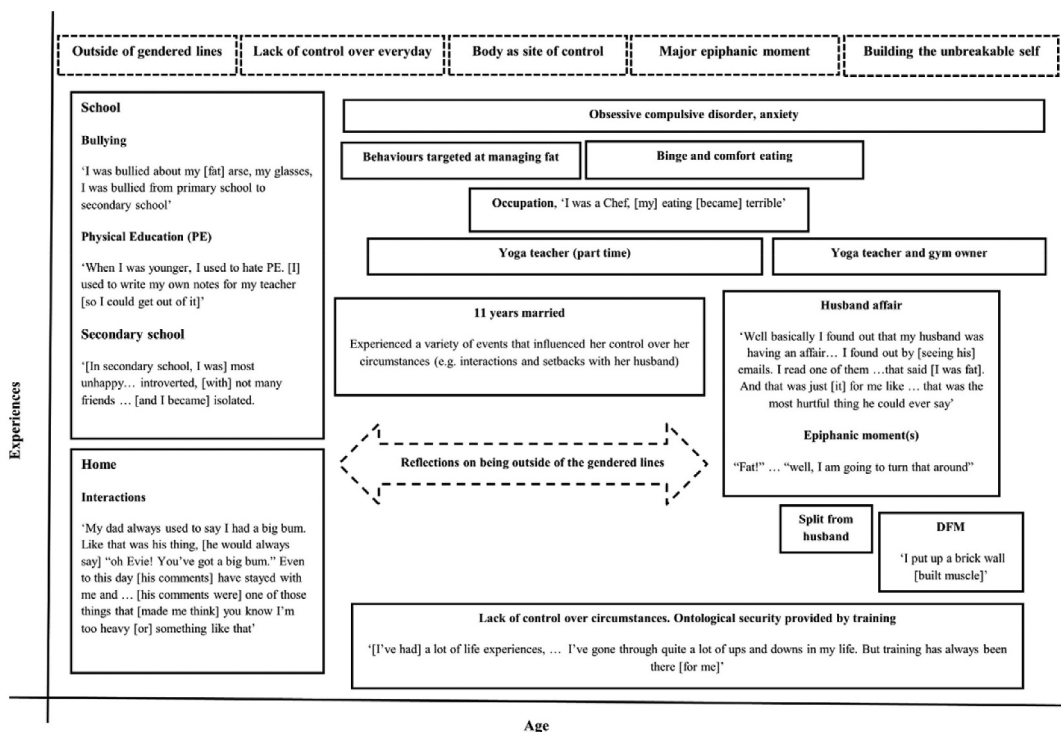


Figure 1. A pictorial representation of Evie's story.

agreed that participants' conformity to traditional femininity was more closely aligned with impression management. Consistent with other researchers in this field (e.g. Bunsell 2013), we turned to Goffman's (1959) symbolic interactionist work. Through feedback via presentations and peer discussions, we concluded that while Goffman's (1959) work helped explain some aspects of these women's stories (e.g. women's management of high DFM in everyday life), it did not directly relate to the personal drive aspect of the narratives. Consequently, we reconsidered our theoretical lens, leading to the concept of ontological security, which then became the cornerstone of our interpretation. Based on these continuous discussions and re-visiting of interview transcripts, what follows is a story of the events and interactions that led our participants to have an extreme DFM. In presenting these stories, pseudonyms are used throughout.

## Results and discussion

We present participants' stories as a temporal plot from childhood through to adulthood to show how various events, experiences, and interactions at pivotal developmental moments shaped participants' corporeal self and their DFM. The themes encompassed within this plot are (a) outside the gendered lines, (b) lack of control of everyday existence, (c) the body as the primary site of/for control (d) searching for ontological security: major epiphanic movement(s), and (e) building the unbreakable self. Participants' perceived lack of control over their circumstances was fundamental to the stories they told, and, in turn, ontological (in)security became the foundational thread to this narrative. The centrality of ontological (in)security did not only correspond to one



specific story but, there were also variations in the events and experiences expressed by the participants. The trajectory of these stories, however, followed a similar thread, which we explore below.

### *Childhood experiences – outside the gendered lines*

In childhood and adolescence, participants' stories often focused on interactions with key primary and secondary socialising agents in terms of 'doing gender' (West and Zimmerman 1987). In the home environment, participants were exposed to dominant feminine characteristics via interactions with their primary caregivers. Through these interactions, participants were taught dominant social standards for and expectations of femininity. How to perform their gender was daily communicated in subtle ways. As Emma identified:

[My parents] they were like ... "Oh. Let's make your hair look beautiful, brush your hair ... " And you know it was like "put on these clothes, you look nice in these clothes" or "those clothes look like they are a bit too tight, or a bit too big." You know ... every [girl] is kind of expected to look slim, you know, [and] take care of their appearance.

Many participants identified their mother's feminine physical characteristics and how those corporeal standards shaped their perceptions. As Lynne disclosed:

My mum is very small and there has always been that kind of perception that small is good. Like she is petite, like tiny. So there has always been that in the background. That small and petite is a good way to be [for a woman].

However, it was not only the dominant gender standards that were reinforced. Participants also depicted direct interactions that highlighted how they were found wanting in terms of culturally dominant beauty ideals. As Evie identified:

My dad always used to say I had a big bum. Like that was his thing, [he would always say] "oh Evie! You've got a big bum." Even to this day [his comments] have stayed with me and ... [his comments were] one of those things that [made me think] you know I'm too heavy [or] something like that.

Participants' limited compliance with socially expected corporeal standards was also conveyed in a subtle manner. For example, Emma reflected on how her mother made comparisons to the standards of beauty exhibited by her peers:

My mother used to work ... for a family friend. They had ... one daughter, [Mary], and she was extremely beautiful. [She had] beautiful long blonde hair, [and she was] very tall and thin. And I would always get hand-me-down [clothes] from her ... [and they were] the most exquisite kind of clothes. And my mum would be like "Oh, Mary looked very nice in that." Because she was really tall and slender ... and [my mum would] ... always make comparisons [between me and Mary].

Participants also disclosed interactions outside the home that highlighted their limited compliance to the expected feminine standard. For instance, they told stories of how they compared their bodies to their peers' in school. In their comparisons, they reflected on multiple gender-related physical characteristics, including perceived height, body shape, thinness, and fatness. Here, participants' corporeal comparisons were upwardly focussed (i.e. comparisons to another female who is perceived to have superior feminine characteristics) and reinforced that their bodies were outside of the gendered lines, resulting in a negative set of emotions. Hannah, for example, reflected on how her above average height made her feel different, less feminine in comparison to her peers, she said: '[the] fact I am taller than a lot of my friends and I think that has always been a problem ... and a bit of a sore point. Because I've always thought that tall girls weren't very feminine.'

Both in the family and school settings, participants spoke of bullying and depreciative comments that reinforced that their body was out of gendered bounds. Helen, for example, spoke about being called 'skinny', and, by being skinny meant she lacked other physical characteristics associated with appearing feminine. She said: 'I've always, like, been called the word "skinny" ...

[and] I hated [school] because I was flat-chested as well with being skinny.’ Similarly, Victoria spoke about how her non-normative stature attracted depreciative feedback. She said: ‘I’m quite tall, so like ... at school people would be a bit like negative towards me.’ These early socialisation experiences reinforced to these women that their body did not fit with traditional gendered expectations and that their physical appearance was unaccepted, even mocked. For these women, believing that their body did not perform their socially assigned gender began to erode the carapace of their ontological security. Nevertheless, childhood socialisation experiences were not the sole influencer of the development of their ontological (in)security. Women also revealed a range of events with reference to the absence of permanency in their everyday existence and the dearth of control they had over their early life and related routine. A sense of permanency, reliability, and trust of persons and circumstances is central to having ontological security (Giddens 1991). Next, we reveal the events and experiences that highlighted participants’ lack of everyday permanency.

### *Lack of control of everyday existence*

One set of experiences discussed by participants that highlighted their declining ontological security was the limited control they had over familial decisions when they were children. Lisa, for example, revealed how she wanted to become a gymnast and dreamed of scoring the perfect ten like Nadia Comăneci (see Comaneci 2004), but due to the reliance on her parents and lack of control of her circumstances, this dream was taken away, she said:

Well, it [was] heart-breaking ... I was [about seven or eight years old] training for gymnastics. Our coach submitted every name to have a test for the national [championship] and the day before [the trials] I got ill ... and my mother said: “well you can’t [go] because we don’t know what it is, and it could be contagious.” People went through to the nationals, I didn’t because I had to stay at home in bed and that was the end [of gymnastics for me]. We then migrated countries and my parents never involved me in another sports club ever again. So, to me, it was the end of my dreams [of scoring the perfect ten] ... [When you are young] you [have to] rely upon your parents, so I kept nagging them but [they] would not do anything.

Similar to Lisa, in childhood, participants’ sparse consistency and control over their situation(s) was the result of problematic changes in family circumstances. Several participants, for example, experienced their parents divorcing, as Hannah revealed: ‘I think ... when my parents divorced ... [I was] about ... ten. That kind of started to make me realise that everything wasn’t happy all [of] the time.’ Similarly, Jody identified her experiences:

[My] parents got divorced ... [which] I think it had quite a negative impact [on me], it took me [ten years] to get over it ... [By that time] my mum had remarried and my dad remarried ... [straight after the divorce]. I didn’t like my step mum and I didn’t get on with her. [Also], ... having my grandparents and my mum saying different things [about my parents’ separation made it difficult]. ... I think [my parents’ divorce] ... didn’t allow me to enjoy my childhood as much as other kids did ...

Participants revealed that in their primary and early secondary socialisation they had limited control over their circumstances, and, in turn, this eroded their ontological security. To renegotiate their ontological security, participants disclosed that they sought control over those aspect(s) of their personal life that they could influence. For example, some participants identified that they became very obsessive and adopted perfectionist attitudes to their personal endeavours (e.g. their sport). For these women, however, their body became their primary control strategy to (re) negotiate their ontological security because, in the context of their circumstances, their body was one ‘thing’ they believed they had control over. We described these experiences through the next theme.

### *The body as the primary site of/for control*

In early and middle adolescence, participants' (re)negotiation of their ontological security centred on their own body and involved engaging in behaviours targeted at modifying their body to fit within the socially prescribed gendered lines. The focus on the body may be consistent with existing accounts, and theoretical models, that highlight that women may use their body, and engage in corporeal modifications, to seek control over their lives (Friedman 2009; Foreich et al. 2016; Patching and Lawler 2009; Worthen and Baker 2016). For example, qualitative and quantitative insights highlight the central role various facets of personal control play in disordered eating (e.g. Foreich et al. 2016; Patching and Lawler 2009).

Here, similar to previous research, participants frequently revealed epiphanic-type moment(s) that prompted their body control and modification tendencies (e.g. Bunsell 2013; Brace-Govan 2004). Epiphanies are described as interactional moments that influence a person's concept of their self-identity and have the capacity to create transformative experiences (Denzin 2001; McDonald 2008). Brace-Govan (2004) identifies that epiphanic-type moments can be fleeting events or result from a sustained period of discomfort between the individual's perceptions of a situation and the perceptions of others. At this point in their stories, participants described moments that were often reflective of a cumulative epiphany (i.e. participant's stories revealed specific events that simulated reflection on their prolonged corporeal discomfort and the absence of control they had over their circumstances, see Denzin 2001). In response to these realisations, most participants identified that they engaged in exercise to control their corporeal self. As Jody disclosed:

I just remember looking in the mirror and going "you need to lose weight" and so I just went to the gym and I had no idea what I was doing. Like I was thirteen and I just went [to the gym] and whoever was on the treadmill I would [run] faster and for longer than them.

Akin to previous research, participants' discussions of epiphanic type moments revealed connections between personal issues and the oppressive social structures that informed their corporeal modifications (e.g. Brace-Govan 2004). Jody's quote, for example, identifies that believing her physique (i.e. her reflection in the mirror) was outside of socially prescribed gendered bounds interacted with her ontological insecurity to create a corporeal epiphany resulting in her increasing exercise tendencies. Similarly, Emma recalled the moments that prompted her diet manipulation and exercise:

I didn't have any nutritional awareness at all, but we went to one family dinner and one [of my relatives] is obsessed with being on diet ... [and] she was the first person [to talk] about calories and I was like "oh so that's what they are." [And] from there I started reading every label and ... I started tracking everything [I ate] and then gave myself a number [of calories] each day that I would eat. ... [I was consuming] six to seven hundred calories per day and plus I was running and I was playing netball so [my weight] got to a really dangerous kind of state.

Many participants identified how they became 'obsessed' with their exercise and diet. Five of the participants identified that they had experienced or had been diagnosed with an eating disorder during their teenage years (including Anorexia Nervosa and Bulimia). Lynne described her experiences:

[I developed] serious obsessions with exercise ... I would have put exercise before everything and everyone fits in with me ... In [the year] 2000, I was clinically diagnosed with anorexia and I was hospitalised for eight months ... prior to that, there was pretty extreme weight loss ... there is a whole chunk of time that I was in and out of various extremes of illness.

Similarly, Sarah recalled her eating disorder: 'I was anorexic when I was fifteen [and was] taken out of school. [I was] then bulimic from when I was seventeen [until a few years ago]'. As described above, engaging in disordered eating and exercise may offer a method for individuals to (re)gain some level of personal control (Patching and Lawler 2009). Such behavioural preoccupations (i.e. excessive

exercise and calorie restriction) may also (re)assert routine and provide structure to a person's life (Friedman 2009; Landolfi 2013). As such, individuals may perceive that by achieving a sense of corporeal control (through exercise and calorie restriction), it may generalise to a sense of control in their everyday lives (Patching and Lawler 2009). Accordingly, for participants in the current study, their corporeal control may have presented a way to (re)build consistency in their life and, in turn, reconstruct their ontological security. That is, consistent with Giddens (1991) concept, the personal control offered by corporeal preoccupations may have enabled participants to grasp some routine and consistency over their every-day-lives. Giddens (1991, 107), in his writing on reflexivity, reinforces the security provided by deploying methods that excessively control the body:

Anorexia represents a striving for security in a world of plural, but ambiguous, options. The tightly controlled body is an emblem of a safe existence in an open social environment.

Participants' narratives disclosed that their body became 'tightly controlled' for two reasons. First, their socialisation-based exposure to dominant gender discourses led them to believe that their body was outside of gendered contours. By conforming to the Western feminine ideal, these women engaged in the process of 'doing gender' (West and Zimmerman 1987). Consistent with the descriptions in previous research, the participants' corporeal conformity was not of their choosing, but a result of socially enforced heterosexual corporeal gender norms (e.g. Coffey 2013, 2019). These socially inscribed expectations kept women in this study within prescribed gendered bounds thereby constraining their embodied practices (Bartky 1988; Piran 2016; Piran and Teall 2012). Here, the descriptions in participants' stories may reflect Piran and Teall (2012) constructs of physical and mental corseting. That is, these women described events and interactions that disrupted their embodiment and 'made them experience [and evaluate] their body as a physical site . . . [with] limited freedom' and choice. As such, participants' disordered eating may be perceived as a body control strategy in response to oppressive socially prescribed standards of femininity (Busanich and McGannon 2010).

Second, while participants had only limited control over dominant social narratives, they believed that they had direct control over their body. The dominant expectations of femininity, however, restricted these women's search for their own self-identity. In turn, to build their ontological security, participants were constrained to control their corporeal self by conforming to the prescribed feminine standard (Piran and Teall 2012). As a result, 'tightly controlling' their body became a strategy participants deployed to renegotiate their ontological security. As Louise articulated:

I completely control how I look, if I look out of shape it is because I have not been eating right and I know how to fix it. Whereas those . . . other parts of my life I can't fix [but] I can fix . . . my physique.

Participants developing too thin figures, however, re-contoured their gendered lines and often attracted unwanted, stigmatising comments. As Sarah identified:

Bullies would say anything like "Oh, look at her! Her legs are going to break!" You know "she's so skinny" and they were like the popular boys in school saying things like that and that always made me feel shit.

For many of the participants these unwanted, stigmatising comments continued into adolescence and early to middle adulthood. As Helen acknowledged:

You know people were like, "Oh, you're anorexic." I had one of my customers . . . and he's like "Oh, my daughters got the same problem as you." and I was like "Oh, what's that?" And he's like "Oh, she's anorexic too." And I was like "You think I'm anorexic?"

These problematic moments continued to erode their ontological security. Consistent with Denzin's (2001) conceptualisation of the cumulative epiphany, problematic moments may build on each other and participants disclosed how a variety of events and interactions led them to realise that conforming to traditional feminine corporeal standards left them vulnerable. This realisation and the need to (re)build their ontological security led to the manifestation of a muscularity focused coping mechanism. We explore these events and related interactions in the next theme.

### *Searching for ontological security: major epiphanic movement(s)*

Participants reflected on a variety of events including relationship breakdowns, significant weight gain following specific episodes or a cumulation of disruptions (e.g. eating disorder hospitalisation and treatment). Through these events, participants' ontological security became unsettled and, as a result, they experienced a perceived loss of control over their circumstance(s). At this juncture, participants often disclosed another epiphanic-type moment when they realised that conforming to traditional, feminine ideals left them feeling disempowered, fragile, and socially, physically, and emotionally vulnerable. These cumulative and major epiphanic moments (i.e. events 'that ... touch every component of the fabric of the person's life' – Denzin 2001, 145), prompted them to (re)consider their relationship to embodiment and its connection to their circumstances that were often beyond their control. Here, the (re)negotiation of their ontological security facilitated the emergence of a muscularity-focused coping mechanism, eventually leading to high levels of DFM. As Louise identified:

I was looking very feminine then very slim ... [but] when I separated from my husband, I needed to be in control, and I wanted to be independent and part of it [being in control and being independent] was I wanted to look strong ... I wanted to show people that I am strong ... and I kind of wanted to show everyone that.

As described above, for some participants, it was the accumulation of experiences that led to the disruption of their ontological security and their DFM formation. Sarah, for instance, identified initially that, during eating disorder treatment, it was the prevention of her selected corporeal control strategy (i.e. anorexia nervosa) that unsettled her ontological security. This challenge prompted her to seek alternative methods of corporeal control (i.e. she developed bulimia). However, she came to realise the shortfall of this strategy. She recalled:

Oh, [when I had bulimia] I felt awful, not comfortable at all. Like in your figure obviously [when you are] bulimic you don't tend to really see [that you are ill] because obviously, you're not skinny or fat. [You] just kind of maintain the same weight and no one knows [that you are ill] so it feels like a bad secret. Whereas, with anorexia, you can't miss it. So, someone's going to help you [with anorexia] but no one's going to help you with bulimia. You have to help yourself.

She continued: 'Obviously, I wasn't happy with the way I was when I was ... [bulimic] and I was skinny fat.' Being in this liminal 'skinny-fat' space prompted Sarah to re-organise her ontological security, and, in turn, to begin toning exercises in the gym with the objective of (re)forming her corporeal self. Through interactions in this context, however, she felt that the ownership of muscle may be a way for her to renegotiate her self-identity, and, as a result, this corporeal epiphany prompted her DFM, she said:

I went to [a friend's bodybuilding] gym and ... I started doing yoga [there] ... and then I'd just do like circuit [training] ... [After a few weeks, my friend] said: "well you're coming [to the gym] four or five days a week, you may as well [start] a body split [workout routine]." So, I was like "oh, okay, alright then." [And after six or eight weeks or so] he was like, "you know what, your body has changed so quickly already, you should think about doing [bodybuilding] ... So [to introduce me to it], he took me to a [bodybuilding] show ... and I was like "Wow! [Bodybuilding] is amazing, look at [those bodies]." I literally had to shut my mouth the whole time. I remember this one girl ... and I was thinking, "Oh my god! I'd love to look like that!"

The desire for muscle building was also apparent in other participants' stories. For two of the non-competitive fitness lifters, it was a set of interactions with their significant others and images on social media that (re)organised their gym practices (e.g. Reade 2016). Still, these participants' stories identify how they (re)conformed to socially enforced heterosexual, oppressive corporeal gender standards and, in turn, modifying their body helped them in some way to (re)negotiate their ontological security. As Victoria discloses:

I met my boyfriend [who helped me start training] through the gym. [I recently] ... had a little boy. I was quite lucky, I was [quite thin and] tiny anyway and I've got a tiny frame. [A muscular look] ... really appealed to me. Not many girls [want this physique, but] it really appealed to me [to have] nice quads and some abs and nice shoulders, just [because] you know it can add curves to women. I'm quite slim, so [adding] some curves through

muscle benefits me, I think. I don't know, [a more muscular physique] attracted me . . . You know, [I] look through Facebook and see people liking photos [of women who train] and you think, "hmmm maybe I should do that and just see [if I gain the attention]."

Participants revealed that these epiphanic-type movements resulted in an immediate call for corporeal change (i.e. toning and muscle building). As Lisa explained:

I no longer have time to waste. I wasted twenty-something years. So, I have got to do something, and it's got to happen now. I can't wait for Monday to start my diet [or training], or for a new month, or for a new year, or for a new something. I need to start right now! The thirtieth of April for me, it was [when I started training to build muscle]. I [could not] wait until May or next year, I needed to do something and I needed to do it right now.

Participants also described the positive influence that building muscle had on their lives and how their workouts helped them (re)negotiate their circumstances. As Lynne disclosed:

[... being strong] is a very powerful feeling. I think when you first start weight training you see results very rapidly. You see changes in your body, like seeing your muscles getting stronger and seeing your muscle definition . . . So, it drives you to keep going back [to the gym]. When you see results so quickly . . . it is very rewarding. [Also] . . . you know, [training helps you in] just switching your head off, [and] maybe letting off frustration a little bit . . . It is like an instant reward because you lift something and put a lot of effort into it, and you don't think about anything else.

Similar to other exercise focused accounts, participants highlighted the positive embodying consequences of their training (e.g. Heywood 1998). Louise, for example, identified: 'I have noticed my relationship [with my body] has changed dramatically since I have started weight training, I am much more accepting of my body'. Participants also identified how muscle building and their DFM led to a sense of control over their embodiment, their identity, and their lives. As Louise described:

I just started absorbing [the gym culture] and I got into lifting heavy every day. [Before,] I [started weight training] . . . [I] just got really sick of just trying really hard to get into shape and not really having any control over it. All I was doing was eating less and training more . . . [When] I started weight training, I found I could manipulate my body, [and] a huge part of this is [that I am in] control [of it] . . . and [I can be] independent.

The embodying consequences of muscle building and its stabilising influence on participants' ontological security often resulted in these women becoming more engrossed in their gym training. Even though participants shared multiple positive experiences resulting from their DFM, these were sometimes overshadowed by negative, marginalising consequences which we discuss below.

### Building the unbreakable self

In regaining their ontological security, participants revealed that they aimed to build a 'strong', 'confident', 'powerful' and an 'unbreakable' self. 'Putting up this [muscular] façade', facilitated the renegotiation of their self-identity and, for some participants, this persona served to conceal their insecurities. As Evie identified:

I put up a brick wall [built muscle], so people don't know that inside I am sensitive because they look at me and they're like: "She looks really strong." You know "She's got tattoos, she's a really strong person. Don't mess with her." and that is what it is . . . When I'm in good shape it just makes me feel strong, but inside I still feel mushy.

Participants often revealed the benefits of their new muscular, 'unbreakable' physique and the ways it helped them (re)negotiate their ontological security. Hannah, for example, identified:

[For me, building muscle,] I think, there has to be some level of kind of looking like you can look after yourself, [and] hold your own in life kind of thing . . . Also, I [now] have the confidence to be able to say 'no' to people and kind of "I don't want to do certain things." so [building muscle] definitely increased that [self-confidence].



The connection between muscle, increased sense of control, and external self-confidence often resulted in participants striving to become more muscular. Whilst wanting to increase their muscle, participants, however, found themselves constrained by socially prescribed normative standards of femininity (e.g. Choi 2003; Shilling and Bunsell 2009). Evie, for example, expressed the conflict between her DFM and societal expectations: '[I want] to be as big as I can while maintaining an element of femininity'. When participants were made to believe that they were 'too big' or 'too bulky' they often reflected on how that influenced their self-perceptions. As Louise expressed:

I do not feel comfortable when I am bigger [more muscular], I don't know [why] that it is. I think that women are always taught socially to be as small as possible and [being muscular] goes against the grain. It's strange really even though I look more muscular now than five or six months ago ... I take up less space now [and it] makes me feel better now [and] I feel more feminine ... I feel unattractive [when I am] bulky ... my benchmark [now] is [to be] really lean, maybe 8-10% body fat.

Participants who perceived their muscle-bound figures as 'too muscular' felt pressured to engage in actions to avoid being stigmatised for their 'non-normative' appearance. Here, consistent with previous research on female bodybuilders and weightlifters (e.g. Brace-Govan 2004; Bunsell and Shilling 2012), participants talked about interactions with people in the 'out-group' or 'normals' (i.e. non-gym going wider society) by whom they were stigmatised. Participants often spoke of how people, in the out-group, would comment on their muscular appearance, ask intrusive questions, and touch their muscular body parts without consent. For example, Lisa reflected on daily interactions with some of her work colleagues:

[My] colleagues would ask quite intrusive questions, ... [like] "can you still have children?" I would say, "why would I not be able to have children?" [they would say] "I don't know, because you train so much".

As the quote above highlights, women appearing in/with bulging muscles may contrast public expectations of 'doing gender' (West and Zimmerman 1987). Participants identified how these interactions influenced them socially and emotionally, and how these interactions had a bearing on their wellbeing. As a result of the public's response, participants identified how they needed to incessantly stage performances to manage perceptions, engaging in actions to prevent further disruption to their ontological security. As Emma disclosed:

[Outside the gym] I've always made a big point of being extra polite so always hold open a door or compliment other people. It is kind of like be super kind now, [I] 'kill' [people] with kindness so they can't say anything back.

On the other hand, regarding in-group (i.e. in the gym or with other people who train to build muscle) interactions, they felt they were in a 'supportive community'. Although, in these in-group interactions many of the participants identified that they had to demonstrate group conformity regarding muscle building. As Louise explained: 'being in [the gym] subculture that makes you want more and more [muscle] and get further and further extreme'. As a result, for some participants, their DFM became ever more extreme. As they became more preoccupied with, and controlled by, their DFM, participants described their engagement with increasingly risky body modifying behaviours, including anabolic steroid use, systematic dehydrating, the use of fat burners, and muscle-oriented disordered eating. Lisa describes her high DFM: 'I still deem [my muscle building today] as an eating disorder because it is controlling and ... [it results in me] always self-analysing [and] obsessing [on] what goes in [must] go out'. Consistent with existing accounts, participants' stories highlight how they excessively deployed, and modified their own body to cope with their circumstances and seek security over their everyday lives (Bunsell 2013; Shilling 2013). In this study, participants' search for ontological security manifested in an elevated DFM.

## Conclusions

We examined women's journeys towards high DFM to gain insight into the socio-cultural and personal experiences that led to such desires. Specifically, our narrative reveals the process by which gender-specific childhood socialising experiences led these women to (trans)form their corporeal self as per expectations of the feminine ideal. It exposed how 'problematic interactions' and life events disrupted participants' ontological security. Consequently, it reveals that the (re) negotiation of their ontological security facilitated the emergence of a muscularity-focused coping mechanism, eventually leading to high levels of DFM. In turn, findings reveal that, similar to men and questioning traditional binary thinking around muscle building, women may also use muscle to (re)negotiate life events and circumstances (Edwards, Molnar, and Tod 2017). Through this insight into these women's life experiences, this paper provides novel knowledge advancements in several ways.

Specifically, to our knowledge, this is the first study to purposively sample female participants based on their high DMS scores. As such, using DMS allowed us to empirically identify participants with an extreme commitment to muscle. In extending knowledge on body image drives, rather than recruiting participants because they participate in a particular activity (e.g. bodybuilding), researchers may look to use quantitative scales and employ mixed methods approaches as doing so may allow for the more nuanced identification of participants with a particular corporeal drive or preoccupation. Our inclusion of women with high DMS scores also locates this work within the DFM-focused body of research and provides rich, qualitative insight that expands and strengthens the quantitative descriptors on women's DFM (e.g. de Carvalho, dos Santos Alvarenga, and Ferreira 2017).

This paper also highlights the value that theory synthesis has in extending knowledge on the development and maintenance of corporeal drives. In the current work, for instance, the concepts of ontological (in)security and epiphanic moments combined helped integrate participants' experiences (Denzin 2001; Giddens 1991). Consequently, in extending knowledge, researchers may look to bring together complementary theoretical perspectives which may allow for greater depth of analysis of the personal, social, and structural issues associated with the DFM (Bouffard and Spencer-Cavaliere 2016; Mills 2000).

In the current study, participants described how their DFM led them to feel empowered and in control over their embodiment, their identity, and their lives. As this desire became more extreme, however, participants' narratives also indicated how this drive became all-consuming. This paper focuses on a population that has been underserved in the DFM research area and, as such, these insights add to the cultural repertoire and provide insights that could be useful for practitioners working with women experiencing an extreme DFM (McAdams 2006). That is, this narrative may help practitioners understand and make sense of women's experiences with high DFM, and in turn, these insights may assist in informing interventions to support individuals in negotiating their body project in a healthy, manageable way.

The presented narrative was crafted from our participants' stories, but we acknowledge that other divergent ones may exist. Future investigations are needed to examine the presence of other DFM-related narratives of women. Our sample included participants between the ages of 21 and 40 years, further research is needed to explore the narratives of women from different age groups. All participants in this study were Caucasian and reside in the United Kingdom. The processes leading to high DFM in relation to women from other ethnic and cultural backgrounds may provide a separate set of practices that we have not identified. Most of the women in the current study identified themselves as heterosexual, and despite the narratives being similar for the whole sample, future research may explore the narratives of non-heterosexual women (Henn et al. 2019). The current paper explored women's experiences and how they perceive(d) and experience(d) their immediate social milieu. Researchers may extend insights by exploring how women's significant others (e.g. their partners) perceive individuals with high DFM as significant others could provide additional perspectives into the antecedents and consequences of the DFM in women's lives. Future research could also consider how

women see the continuation of their bodywork. Given the sense of security that body projects can provide, they may remain central to an individual's identity and, thus, exploring how women (with high DFM) perceive the continuation of their selected body control strategy is pertinent (Coffey 2016).

Enhancing our understanding of women's experiences of DFM may assist researchers in the development of a knowledge base that may help support practitioners working with women experiencing extreme muscle drives. Finally, and more broadly, in extending knowledge on body image drives, as the current work highlights, there needs to be rethinking of gender binaries which often keep researchers in traditional male versus female silos and reinforces the belief that specific corporeal desires (e.g. the DFM) only affect one gender, but not the other.

## Acknowledgments

We would like to thank the research participants involved for sharing their experiences and time. We also thank the anonymous peer reviewers and Dr Emma Richardson for their helpful comments that have strengthened this article.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Notes on contributors

*Christian Edwards* is a Senior Lecturer in the School of Sport and Exercise Science at the University of Worcester.

*Győző Molnár* Professor of Sociology of Sport and Exercise at the University of Worcester, UK.

*David Tod* is a Senior Lecturer in the School of Sport and Exercise Sciences at Liverpool John Moores University, UK.

## ORCID

Christian Edwards  <http://orcid.org/0000-0003-4170-6475>

Győző Molnár  <http://orcid.org/0000-0003-1732-5672>

David Tod  <http://orcid.org/0000-0003-1084-6686>

## References

- Adriansen, H.K. 2012. "Timeline Interviews: A Tool for Conducting Life History Research." *Qualitative Studies* 3 (1): 40–55. doi:10.7146/qs.v3i1.6272.
- Bartky, S. 1988. "Foucault, Femininity and the Modernisation of Patriarchal Power." In *Feminism and Foucault*, edited by I. Diamond and L. Quinby, 61–86. Boston: Northeastern University press.
- Bennett, E. V., L. Scarlett, L. Hurd Clarke, and P. R. Crocker. 2017. "Negotiating (Athletic) Femininity: The Body and Identity in Elite Female Basketball Players." *Qualitative Research in Sport, Exercise and Health* 9 (2): 233–246. doi:10.1080/2159676X.2016.1246470.
- Bordo, S. 2004. *Unbearable Weight: Feminism, Western Culture and the Body*. London: University of California Press.
- Bouffard, M., and N. Spencer-Cavaliere. 2016. "Interdisciplinarity in Adapted Physical Activity." *Quest* 68 (1), 4–14. doi:10.1080/00336297.2015.1117002
- Bourdieu, P. 1986. *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, Massachusetts: Harvard University Press.
- Brace-Govan, J. 2004. "Weighty Matters: Control of Women's Access to Physical Strength." *The Sociological Review* 52 (4): 503–531. doi:10.1111/j.1467-954X.2004.00493.x.
- Brown, D. 1999. "The Social Meaning of Muscle." In *Talking Bodies: Men's Narratives of the Body and Sport*, edited by A. C. Sparkes and M. Silvennoinen, 99–117. Jyväskylä, Finland: SoPhi.
- Bunsell, T., and C. Shilling. 2012. "Outside and inside the Gym: Exploring the Identity of the Female Bodybuilder." In *Critical Readings in Bodybuilding*, edited by N. Richardson and A. Locke, 58–72. London, UK: Routledge.
- Bunsell, T. 2013. *Strong and Hard Women: An Ethnography of Female Bodybuilding*. Oxon, UK: Routledge.

- Burke, S. 2016. "Rethinking 'Validity' and 'Trustworthiness' in Qualitative Inquiry: How Might We Judge the Quality of Qualitative Research in Sport and Exercise Sciences?" In *Routledge Handbook of Qualitative Research in Sport and Exercise*, edited by B. Smith and A.C. Sparkes, 330–341. London, UK: Routledge.
- Busanich, R., and K R McGannon. 2010. "Deconstructing Disordered Eating: A Feminist Psychological Approach to the Body, Food, and Exercise Relationship in Female Athletes." *Quest* 62 (4): 385–405. doi:10.1080/00336297.2010.10483656.
- Capodilupo, C. M., and S. Kim. 2014. "Gender and Race Matter: The Importance of considering Intersections in Black Women's Body Image." *Journal of Counseling Psychology* 61 (1): 37–49. doi:10.1037/a0034597.
- Carless, D., and K. Douglas. 2010. *Sport and Physical Activity for Mental Health*. Oxford, UK: Wiley-Blackwell.
- Carless, D., and K. Douglas. 2017. "Narrative Research." *The Journal of Positive Psychology* 12 (3): 307–308. doi:10.1080/17439760.2016.1262611.
- Cash, T. F. 2011. "Cognitive-behavioral Perspectives on Body Image." In *Body Image: A Handbook of Science, Practice, and Prevention*, edited by T. F. Cash and L. Smolak, 39–47. New York, NY: Guilford Press.
- Choi, P. Y. 2003. "Muscle Matters: Maintaining Visible Differences between Women and Men." *Sexualities, Evolution & Gender* 5 (2): 71–81. doi:10.1080/14616660310001632554.
- Coen, S. E., M. W. Rosenberg, and J. Davidson. 2018. "It's Gym, like Gym Not Jim': Exploring the Role of Place in the Gendering of Physical Activity." *Social Science & Medicine* 196: 29–36. doi:10.1016/j.socscimed.2017.10.036.
- Coffey, J. 2013. "Bodies, Body Work and Gender: Exploring a Deleuzian Approach." *Journal of Gender Studies* 22 (1): 3–16. doi:10.1080/09589236.2012.714076.
- Coffey, J. 2016. "I Put Pressure on Myself to Keep that Body': 'Health'-related Body Work, Masculinities and Embodied Identity." *Social Theory & Health* 14 (2): 169–188. doi:10.1057/sth.2015.27.
- Coffey, J. 2019. "Creating Distance from Body Issues: Exploring New Materialist Feminist Possibilities for Renegotiating Gendered Embodiment." *Leisure Sciences* 41 (1): 72–90. doi:10.1080/01490400.2018.1539685.
- Comaneci, N. 2004. *Letters to a Young Gymnast*. New York, NY: Basic Books.
- de Carvalho, P. H. B., M dos Santos Alvarenga, and M. E. C Ferreira. 2017. "An Etiological Model of Disordered Eating Behaviors among Brazilian Women." *Appetite* 116: 164–172. doi:10.1016/j.appet.2017.04.037.
- Denzin, N. K. 2001. *Interpretive Interactionism*. London: Sage.
- Edwards, C., D. Tod, and G. Molnar. 2014. "A Systematic Review of the Drive for Muscularity Research Area." *International Review of Sport and Exercise Psychology* 7 (1): 18–41. doi:10.1080/1750984X.2013.847113.
- Edwards, C., G. Molnar, and D. Tod. 2017. "Searching for Masculine Capital: Experiences Leading to High Drive for Muscularity in Men." *Psychology of Men & Masculinity* 18 (4): 361–371. doi:10.1037/men0000072.
- Fredrickson, B. L., and T. A. Roberts. 1997. "Objectification Theory: Toward Understanding Women's Lived Experiences and Mental Health Risks." *Psychology of Women Quarterly* 21 (2): 173–206. doi:10.1111/j.1471-6402.1997.tb00108.x.
- Friedman, P. 2009. *Diary of an Exercise Addict*. Guilford, CT: Globe Pequot Press.
- Freireich, F. V., L. R. Vartanian, J. R. Grisham, and S. W. Touyz. 2016. "Dimensions of Control and Their Relation to Disordered Eating Behaviours and Obsessive-compulsive Symptoms." *Journal of Eating Disorders* 4 : 14. doi:10.1186/s40337-016-0104-4.
- Garner, D. M., M. P. Olmstead, and J. Polivy. 1983. "Development and Validation of a Multidimensional Eating Disorder Inventory for Anorexia Nervosa and Bulimia." *International Journal of Eating Disorders* 2 (2): 15–34. doi:10.1002/1098-108X(198321)2:2<15::AID-EAT2260020203>3.0.CO;2-6.
- Giddens, A. 1990. *The Consequences of Modernity*. Cambridge, UK: Polity Press.
- Giddens, A. 1991. *Modernity and Self-Identity*. Cambridge, UK: Polity Press.
- Goffman, E. 1959. *The Presentation of Self in Everyday Life*. London, UK: Penguin Books.
- Henn, A. T., C. O. Taube, S. Vocks, and A. S. Hartmann. 2019. "Body Image and Eating Disorder and Body Dysmorphic Disorder Symptoms in Heterosexual, Homosexual, and Bisexual Women." *Frontiers in Psychiatry* 10: 531. doi:10.3389/fpsy.2019.00531.
- Heywood, L. 1998. *Bodymakers: A Cultural Anatomy of Women's Body Building*. London, UK: Rutgers University Press.
- Hockin-Boyers, H., S. Pope, and K. Jamie. 2020. "#gainingweightiscool: The Use of Transformation Photos on Instagram among Female Weightlifters in Recovery from Eating Disorders." *Qualitative Research in Sport, Exercise and Health* 13 (1): 1–19. doi:10.1080/2159676X.2020.1836511.
- Howells, K., and S. Grogan. 2012. "Body Image and the Female Swimmer: Muscularity but in Moderation." *Qualitative Research in Sport, Exercise and Health* 4 (1): 98–116. doi:10.1080/2159676X.2011.653502.
- Klein, A. M. 1993. *Little Big Men: Bodybuilding Subculture and Gender Construction*. New York, NY: State University of New York Press.
- Krane, V., P. Y. Choi, S. M. Baird, C. M. Aimar, and K. J. Kauer. 2004. "Living the Paradox: Female Athletes Negotiate Femininity and Muscularity." *Sex Roles* 50 (5): 315–329. doi:10.1023/B:SERS.0000018888.48437.4f.
- Landolfi, E. 2013. "Exercise Addiction." *Sports Medicine* 43 (2): 111–119. doi:10.1007/s40279-012-0013-x.
- Leone, J. E. 2009. "Muscle Dysmorphia Symptomatology and Extreme Drive for Muscularity in a 23-year-old Woman: A Case Study." *The Journal of Strength & Conditioning Research* 23 (3): 988–995. doi:10.1519/JSC.0b013e3181a0547a.
- Lovejoy, M. 2001. "Disturbances in the Social Body: Differences in Body Image and Eating Problems among African American and White Women." *Gender & Society* 15 (2): 239–261. doi:10.1177/089124301015002005.

- Lowe, M. R. 1998. *Women of Steel: Female Bodybuilders and the Struggle for Self-definition*. London: New York University Press.
- MacNeill, L. P., and L. A. Best. 2015. "Perceived Current and Ideal Body Size in Female Undergraduates." *Eating Behaviors* 18: 71–75. doi:10.1016/j.eatbeh.2015.03.004.
- Majors, R., and J. M. Billson. 1993. *Cool Pose: The Dilemma of Black Manhood in America*. New York, NY: Lexington Books.
- Malterud, K., V. D. Siersma, and A. D. Guassora. 2016. "Sample Size in Qualitative Interview Studies: Guided by Information Power." *Qualitative Health Research* 26 (13): 1753–1760. doi:10.1177/1049732315617444.
- McAdams, D. P. 2006. "The Problem of Narrative Coherence." *Journal of Constructivist Psychology* 19 (2): 109–125. doi:10.1080/10720530500508720.
- McCreary, D. R., and D. K. Sasse. 2000. "An Exploration of the Drive for Muscularity in Adolescent Boys and Girls." *Journal of American College Health* 48 (6): 297–304. doi:10.1080/07448480009596271.
- McCreary, D. R., D. K. Sasse, D. M. Saucier, and K. D. Dorsch. 2004. "Measuring the Drive for Muscularity: Factorial Validity of the Drive for Muscularity Scale in Men and Women." *Psychology of Men & Masculinity* 5 (1): 49–58. doi:10.1037/1524-9220.5.1.49.
- McDonald, M. G. 2008. "The Nature of Epiphanic Experience." *Journal of Humanistic Psychology* 48 (1): 89–115. doi:10.1177/0022167807311878.
- McGrath, S. A., and R. A. Chananie-Hill. 2009. "Big Freaky-looking Women": Normalizing Gender Transgression through Bodybuilding." *Sociology of Sport Journal* 26 (2): 235–254. doi:10.1123/ssj.26.2.235.
- Mills, C. W. 2000. *The Sociological Imagination*. New York, NY: Oxford University Press.
- Morrison, T.G., M.A. Morrison, and L. McCann. 2006. "Striving for Bodily Perfection? An Overview of the Drive for Muscularity." In *Body Image: New Research*, edited by M.V. Kines, 1–34. New York, NY: Nova Science.
- Papathomas, A. 2016. "Narrative Inquiry: From Cardinal to Marginal . . . and Back?" In *Routledge Handbook of Qualitative Research in Sport and Exercise*, edited by B. Smith and A.C. Sparkes, 37–49. London, UK: Routledge.
- Papathomas, A., and D. Lavallee. 2012. "Narrative Constructions of Anorexia and Abuse: An Athlete's Search for Meaning in Trauma." *Journal of Loss and Trauma* 17 (4): 293–318. doi:10.1080/15325024.2011.616740.
- Patching, J., and J. Lawler. 2009. "Understanding Women's Experiences of Developing an Eating Disorder and Recovering: A Life-history Approach." *Nursing Inquiry* 16 (1): 10–21. doi:10.1111/j.1440-1800.2009.00436.x.
- Piran, N., and T. Teall. 2012. "The Developmental Theory of Embodiment." In *Preventing Eating-related and Weight-related Disorders: Collaborative Research, Advocacy, and Policy Change*, edited by G.L. McVey, M.P. Levine, N. Piran, and H. B. Ferguson, 169–198. Ontario, Canada: Wilfrid Laurier University Press.
- Piran, N. 2016. "Embodied Possibilities and Disruptions: The Emergence of the Experience of Embodiment Construct from Qualitative Studies with Girls and Women." *Body Image* 18: 43–60. doi:10.1016/j.bodyim.2016.04.007.
- Reade, J. A. 2016. "The Female Body on Instagram: Is Fit the New It?" *Reinvention: An International Journal of Undergraduate Research* 9: 1–1.
- Robert, C. A., K. J. Munroe-Chandler, and K. L. Gammage. 2009. "The Relationship between the Drive for Muscularity and Muscle Dysmorphia in Male and Female Weight Trainers." *The Journal of Strength & Conditioning Research* 23 (6): 1656–1662. doi:10.1519/JSC.0b013e3181b3dc2f.
- Roussel, P., and J. Griffet. 2000. "The Path Chosen by Female Bodybuilders: A Tentative Interpretation." *Sociology of Sport Journal* 17 (2): 130–150. doi:10.1123/ssj.17.2.130.
- Scott, A. 2011. "Pumping up the Pomp: An Exploration of Femininity and Female Bodybuilding." *Vis-à-vis: Explorations in Anthropology* 11 (1): 70–88.
- Shea, B. C. 2001. "The Paradox of Pumping Iron: Female Bodybuilding as Resistance and Compliance." *Women and Language* 24 (2): 42–47.
- Shilling, C., and T. Bunsell. 2009. "The Female Bodybuilder as a Gender Outlaw." *Qualitative Research in Sport and Exercise* 1 (2): 141–159. doi:10.1080/19398440902909009.
- Shilling, C., and T. Bunsell. 2014. "From Iron Maiden to Superwoman: The Stochastic Art of Self-transformation and the Deviant Female Sporting Body." *Qualitative Research in Sport, Exercise and Health* 6 (4): 478–498. doi:10.1080/2159676X.2014.928897.
- Shilling, C. 2013. *The Body and Social Theory*. London, UK: Sage publications.
- Sisjord, M. K., and E. Kristiansen. 2009. "Elite Women Wrestlers' Muscles: Physical Strength and a Social Burden." *International Review for the Sociology of Sport* 44 (2–3): 231–246. doi:10.1177/1012690209335278.
- Smith, B. 2016. "Narrative Analysis in Sport and Exercise: How It Can Be Done?" In *Routledge Handbook of Qualitative Research in Sport and Exercise*, edited by B. Smith and A.C. Sparkes, 260–273. London, UK: Routledge.
- Smith, B., and A. C. Sparkes. 2009. "Narrative Analysis and Sport and Exercise Psychology: Understanding Lives in Diverse Ways." *Psychology of Sport and Exercise* 10 (2): 279–288. doi:10.1016/j.psychsport.2008.07.012.
- Smith, B., and K. R. McGannon. 2018. "Developing Rigor in Qualitative Research: Problems and Opportunities within Sport and Exercise Psychology." *International Review of Sport and Exercise Psychology* 11 (1): 101–121. doi:10.1080/1750984X.2017.1317357.
- Sparkes, A. C., and B. Smith. 2009. "Judging the Quality of Qualitative Inquiry: Criteriology and Relativism in Action." *Psychology of Sport and Exercise* 10 (5): 491–497. doi:10.1016/j.psychsport.2009.02.006.

- Steinfeldt, J. A., H. Carter, E. Benton, and M. C. Steinfeldt. 2011. "Muscularity Beliefs of Female College Student-athletes." *Sex Roles* 64 (7–8): 543–554. doi:[10.1007/s11199-011-9935-2](https://doi.org/10.1007/s11199-011-9935-2).
- Swami, V., D. A. Frederick, T. Aavik, L. Alcalay, J. Allik, D. Anderson, S. Andrianto, et al. 2010. "The Attractive Female Body Weight and Female Body Dissatisfaction in 26 Countries across 10 World Regions: Results of the International Body Project I". *Personality and Social Psychology Bulletin* 36 (3): 309–325. doi:[10.1177/0146167209359702](https://doi.org/10.1177/0146167209359702).
- Thompson, J. K., L. J. Heinberg, M. Altabe, and S. Tantleff-Dunn. 1999. *Exacting Beauty: Theory, Assessment, and Treatment of Body Image Disturbance*. Washington, DC: American Psychological Association.
- Tiggemann, M., and M. Zaccardo. 2018. "'Strong Is the New Skinny': A Content Analysis of #fitspiration Images on Instagram." *Journal of Health Psychology* 23 (8): 1003–1011. doi:[10.1177/1359105316639436](https://doi.org/10.1177/1359105316639436).
- Walters, R., and K. Hefferon. 2020. "'Strength Becomes Her'—resistance Training as a Route to Positive Body Image in Women." *Qualitative Research in Sport, Exercise and Health* 12 (3): 446–464. doi:[10.1080/2159676X.2019.1634127](https://doi.org/10.1080/2159676X.2019.1634127).
- Wesely, J. K. 2001. "Negotiating Gender: Bodybuilding and the Natural/unnatural Continuum." *Sociology of Sport Journal* 18 (2): 162–180. doi:[10.1123/ssj.18.2.162](https://doi.org/10.1123/ssj.18.2.162).
- West, C., and D.H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1 (2): 125–151. doi:[10.1177/0891243287001002002](https://doi.org/10.1177/0891243287001002002).
- Wolcott, H. F. 1994. *Transforming Qualitative Data: Description, Analysis, and Interpretation*. London, UK: Sage.
- Worthen, M. G., and S. A. Baker. 2016. "Pushing up on the Glass Ceiling of Female Muscularity: Women's Bodybuilding as Edgework." *Deviant Behavior* 37 (5): 471–495. doi:[10.1080/01639625.2015.1060741](https://doi.org/10.1080/01639625.2015.1060741).
- Zelli, A., F. Lucidi, and L. Mallia. 2010. "The Relationships among Adolescents' Drive for Muscularity, Drive for Thinness, Doping Attitudes, and Doping Intentions." *Journal of Clinical Sport Psychology* 4 (1): 39–52. doi:[10.1123/jcsp.4.1.39](https://doi.org/10.1123/jcsp.4.1.39).