



Body image experiences in retired Olympians: Losing the embodied self

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ABSTRACT

Athlete body dissatisfaction is prevalent across sports and can lead to disordered eating, negative affect, and poor mental health. Whether body image concerns persist into athletic retirement is a focus of research, predominately involving survey-based data in usually sub-elite athletic samples. This study is the first to focus on the meanings elite athletes ascribe to their bodies in retirement. We recruited 31 retired elite athletes, including 23 former Olympians, to participate in a semi-structured interview. More than 25 h of interview data was transcribed verbatim and subject to a reflexive thematic analysis. We constructed 4 major themes to describe athlete experiences: 1) A legacy of body-conscious culture 2) The struggle for “normal”, 3) Loss of body as loss of self, 4) Towards new meanings and identities. Athletes explained how the body surveillance culture of elite sport echoed into their post-sport lives. An Olympian identity was considered an embodied identity, so body changes represented a loss of the self. Adjusting to regular eating and exercise routines was deemed challenging, with minimal access to guidance and support. Accepting the inevitability of physical changes in retirement and finding new meanings and identities, were deemed effective coping strategies. Athletes’ insights can support sport psychologists and elite sport organisations to devise strategies and policies to facilitate adaptation to body changes post-retirement from sport.

Body image refers to self-perceptions and attitudes towards our bodies and includes cognitive, affective, and behavioural dimensions (Bailey et al., 2017). Current understandings of body image conceive it as relating to both physical appearance and function; that is how our bodies look but also what our bodies can do (Sabiston et al., 2019). Positive body image reflects an appreciation for, acceptance of, and confidence in one’s body regardless of whether it conforms to cultural ideals; most commonly slenderness for women and muscularity for men (Tylka & Wood-Barcalow, 2015). In contrast, negative body image reflects a perceived discrepancy between one’s actual body and one’s ideal body, and it typically results in feelings of body dissatisfaction (Grogan, 2021). Body dissatisfaction is widely considered a growing problem associated with significant psychological consequences, such as disordered eating, depression, and poor mental health (for a full review see Bucchianeri & Neumark-Sztainer, 2014).

Athletes are vulnerable to a range of body-related pressures and thereby susceptible to body image concerns and body dissatisfaction (e.g. Galli et al., 2017; Papathomas & Lavalée, 2010; Petrie et al., 2014). Pressures to maintain lean body mass for performance can lead athletes

to become preoccupied with weight and physical appearance and ultimately body dissatisfied (Reel et al., 2010). Other aspects of competitive sport can also accentuate athletes’ body insecurity, including critical body-related comments from a coach (Beckner & Record, 2016), unnecessary weigh-ins (McMahon et al., 2012), revealing sports attire (Anderson et al., 2012), and negative comparisons with peers (Scott et al., 2019). Athletes in aesthetic or endurance sports, such as figure skating and distance running respectively, are particularly vulnerable compared to athletes in power sports like netball (Mancine et al., 2020). Athletes must also negotiate general societal appearance pressures, which can lead to feeling that their sporting body conflicts with cultural ideals. For example, female athletes may come to view their muscular, athletic body as “unfeminine” (Howells & Grogan, 2012), particularly in social situations with women whose bodies more closely align with Western female ideals of thinness and smallness (Krane et al., 2004). Similarly, male distance runners express concerns about their ultra-lean bodies, viewing them as insufficiently masculine compared to male appearance ideals (Busanich et al., 2014).

The variety of sport-specific and general societal weight and

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appearance pressures can also jeopardize athlete mental health. For example, athletes may experience anxiety towards opportunities for social comparison and sadness when others, namely fellow athletes, are perceived to look better (Pila et al., 2014). Athletes may also worry obsessively about what they eat, experiencing feelings of guilt when there is a perceived lapse away from the “perfect” athlete diet (Papathomas & Lavallee, 2006). The desire to achieve bodily perfection is associated with increased risk of disordered eating (Voelker & Reel, 2015), as well as clinical eating disorders such as anorexia nervosa and bulimia nervosa (Papathomas, 2018). At the more severe end of the disordered eating spectrum, athletes also experience shame, stigma, and impaired social and familial relationships (Papathomas et al., 2015). As the body struggles without fuel, athletes become mentally burdened by more frequent injuries and missed training and competition (Kontele & Vassilakou, 2021). For the competitive athlete then, body dissatisfaction can lead to a variety of physical and psychological consequences.

Exclusively sampling *currently* competing athletes has been a limitation of most of the existing body image literature. Only a few studies have explored how body image evolves through sport retirement, even though former athletes report significant changes in body composition such as reduced muscle tone and increased fat (Liu et al., 2008; Papathomas et al., 2018). Early correlational research identified that retirement from elite sport is associated with a reduction in global self-esteem and physical self-perceptions (Stephan & Bilard, 2003; Stephan et al., 2007). Through interviews with elite gymnasts, Kerr and Dacyszyn (2000) identified a long-lasting preoccupation with, and dissatisfaction in, weight and body size. Relatedly, retired artistic gymnasts have described continuing body dissatisfaction and ongoing disordered eating, as well as body perceptions that were more negative than their nonretired counterparts (Kerr et al., 2006). This ongoing, and potentially worsening dissatisfaction may be due to retired athletes judging their current bodies against how they looked as active competitors (Greenleaf, 2002), and/or post-retirement weight gain and muscle loss (Stirling et al., 2012).

These early insights were expanded upon through a selection of studies offering in-depth interpretive work. For example, Papathomas and Lavallee (2006) described how the body image issues of an elite young soccer player continued into early adulthood, long after his sporting pursuits had ceased. In this life history account, participant Mike described a process of comparing his body with teammates, developing stringent dietary habits, and eventually bulimia nervosa, which persisted several years after sport. Drawing on narrative and ethnographic principles, the work of McMahon et al. (2012) has also provided rich accounts of the ways weight pressures during sport persist into retirement. In this study, the lead author recounts the experiences of 3 former elite Australian swimmers, of whom she is one. For each participant, a first-person story is presented for both their experiences when competing and their experiences 10–30 years post-retirement. The stories about their lives as athletes communicate dietary surveillance and body shaming within an elite sports culture. Into their later lives, the stories describe experiences of continued guilt around food, body shame, binge eating and relationship difficulties. These unique insights were produced through the purposive sampling of athletes with especially difficult experiences, further qualitative insights into a wider spectrum of experiences, across a range of sports, is also needed. Additionally, in presenting the results as stories, McMahon et al. (2022) deliver rich and evocative insights on before and after, whereas the transition, the between period, and how it is perceived and managed, is not a focus.

Combining the breadth of a survey with in-depth written accounts, Papathomas et al. (2018) explored the body image experiences of 218 retired female swimmers and gymnasts. Participants were able to complete an open-ended free-text response to questions addressing how their bodies had changed, their feelings about these changes, and what coping strategies they adopted. Qualitative analysis of these written responses suggested athletes had diverse interpretations of the muscle loss they experienced in retirement. For some, muscle loss was viewed as

“fatness”, and thus a source of shame and self-loathing. For others, reduced muscle suggested increased femininity and a welcome move towards Western beauty ideals. Adding further nuance, some retired athletes felt torn between embracing newfound femininity and longing to maintain an element of athleticism. As the authors argued, “commitment to two incompatible body ideals may render a retired athlete at risk of prolonged body dissatisfaction” (p. 40). The survey-based design, however, precluded the researchers from probing for further insights and constructing a deeper exploration of how changes in body image may relate to retired athletes’ wider psychological health. Further, participants had retired from college sport in their early-20s rather than later as is common among more elite level athletes. The impact of post-retirement body changes on athletes who have competed at the pinnacle of sport for a full career might be expected to be more severe as illustrated by McMahon and colleagues (2012). Lastly, the sample was limited to women in lean or aesthetic sports, yet it is well-known that body image issues can occur in male athletes across a range of sports (see Papathomas & Lavallee, 2006).

This study addresses the discussed limitations by taking an in-depth qualitative approach that emphasizes athletes’ personal meanings and explores their contextual circumstances through open-ended interviews. We seek to add to existing qualitative insights by expanding the repertoire of stories and focusing on the transitional experiences. We focus on the experiences of retired elite male and female athletes who have competed at the highest level of sport, primarily former Olympians. Athletes who compete at the apex of their sport for several years are persistently exposed to unique weight-based pressures and intense body scrutiny, the long-term impact of which is seldom studied. In sum, we addressed the following research questions: 1) How does experience of an overtly body conscious culture shape retirement experiences? 2) What body changes do athletes perceive during the transition out of sport and how do they cope with these changes? 3) For those who experience post-retirement body dissatisfaction, what is the perceived impact on psychological health?

1. Methodology

This qualitative study is broadly located within an interpretivist paradigm that subscribes to ontological relativism and epistemological constructionism. The version of relativism adopted maintains that human experience is subjective, malleable, and value-laden; as opposed to a fixed, objective, singular Truth (Smith & Deemer, 2000). This worldview does not deny the existence of a material reality, but that it is less consequential for experience than perceived reality. For us, epistemological constructionism argues experiential reality is interactively co-created through social interactions and cultural ways of knowing. Given these ontological and epistemological assumptions, exploring athletes’ perspectives and meanings via open-ended, semi-structured interviews is a logical decision and an example of *methodological coherence* (Pereira Vargas et al., 2024). Specifically, by encouraging former athletes to tell their own story, by supporting them through digressions and changes in topic, and by responding organically to story details rather than inflexibly sticking to the interview guide, the interview upheld our philosophical principles regarding reality as socially constructed and mind dependent.

1.1. Positionality

Whether to express positionality has become a point of contention within qualitative research circles. The confines of journal word limits can result in brief positionality statements and accusations of tokenism (Martin et al., 2022). Others have argued such declarations are of limited value due to the many positions that make research work (e.g. multi-authored articles like this one) and the difficulty removing such varied “biases” (Savolainen et al., 2023). This latter view subsumes the goal of such reflexivity is to bracket out our personal situatedness, an

erroneous assumption from the constructionist perspective that shapes the present study. As such, a brief acknowledgement of positionality is provided here not to prevent bias and return to a God's eye view (Smith & Deemer, 2000), but to allow the reader to gain some hold of the lens through which the study was designed and conducted.

As primary investigator, I (Anthony Papathomas) have researched athlete disordered eating and eating disorders, as well as other clinical mental health issues in sport. Although this study was not exclusively focused on such clinical issues, the darker side of sport is of interest to me and duly featured in the interview guide. Understanding the experiences of men with regards to disordered eating and body image concerns is also a focus of my research and a reason I insisted on including men in the final sample. On the other hand, as this research was funded by The Olympic Studies Centre, I was mindful when framing research questions that the funder came to the project with their own goals and objectives, which I was given money to fulfil. This led to recruiting a larger sample than I would normally; my preference to spend time exploring wider life contexts had to be quelled to allow athletes from various sports and both Winter and Summer Olympians to participate. Power dynamics in this study are fluid and uncertain; although there is authority and expertise within my role of University academic, there is also a great aura and respect associated with Olympians, particularly for someone who studies sport but does not know what it is like to be elite.

Hannah Newman is a postdoctoral researcher with expertise in gender issues in sport and athlete mental health, as studied from a social psychological perspective. Hannah competes in strongwoman events and has explored gender, identity, and body image in this community within a doctoral thesis (Newman, 2020). This ethnographic and autoethnographic body of work provided valuable experience to conducting interviews with athletes about sensitive topics such as body dissatisfaction, restrained eating, and associated emotional burden. Specifically, Hannah was attuned to listening to participant stories in naturalistic settings and responding authentically to these. Trent Petrie is a senior professor and applied practitioner with a career dedicated to researching and practicing in the areas of athlete body image and disordered eating. Karin Moesch is an applied practitioner in elite sport and an academic with expertise in mental health. The conceptual and applied expertise of Trent and Karin supported study design and development, as well as informing their role as critical friends throughout data collection and analysis (see Data Analysis subsection for examples of how critical friendship worked in this study).

1.2. Participant recruitment

On receiving institutional ethical approval, a purposive sampling strategy was adopted, whereby we selected participants based on having experiences relevant to the research focus. Specifically, we targeted elite athletes who had experienced body image issues during their retirement from sport, with a priority towards former Olympians. Access to this population was supported by the funder, The Olympic Studies Centre, who forwarded recruitment flyers to organisations who work directly with Olympic athletes. It was explained to those who volunteered that we would take steps to preserve their anonymity but that this could not be guaranteed. These steps included removing place and name identifiers from the transcript, excluding references to family context (e.g. my twin sister), and allocating pseudonyms. All participants were satisfied with the anonymity measures taken. Of the 31 athletes interviewed, 23 had competed in at least one Olympic Games, and eight had competed in other major international events (e.g., Commonwealth Games, World Championships). Eleven athletes resided in Great Britain, eight in the United States of America, four in Switzerland, three in Sweden, and one in each of Canada, Singapore, Fiji, Latvia, and Italy. We interviewed 22 female athletes and nine male athletes across a range of sports (24 summer sport athletes and seven winter sport athletes). Ten athletes competed in lean/aesthetic sports, 15 in weight category/body exposure sports, and six in power sports. Represented sports included: canoe

sprint, skeleton, rowing, alpine skiing, badminton, basketball, orienteering, swimming, artistic swimming, gymnastics, diving, cycling, boxing, judo, cross country skiing, freestyle skiing, steeplechase, discus. The mean age of the athletes interviewed was 34 years (range 22–51 years) and the mean years since retirement was 3.90 years (range 1–7 years).

1.3. Data collection

All interviews were conducted online and transcribed verbatim by Hannah Newman. The average interview duration was 50 min, with more than 25 h of data collected. Although interpretive inquiry into life experience can benefit from multiple interviews with the same person (e.g. Papathomas & Lavallee, 2012, 2014), a single interview was used in this study due to a) the relatively narrow focus on a specific issue (body image) at a specific time-period (retirement), and b) budget and time constraints related to a one-year funded project. We used semi-structured interviews, openly framed most questions and probes, and encouraged storytelling with an emphasis on thoughts, feelings, and personal meanings. On conducting the interviews, Hannah was not obligated to work through all interview guide questions but free to ask new and alternative questions as the conversation organically unfolded according to each athlete's personal story. This open, active interviewing style is a cornerstone of constructionist interpretive inquiry where meaning is an interactional accomplishment between interviewer and interviewee (Holstein & Gubrium, 2016). The specific content of the guide was created according to our research questions and existing literature. For example, as existing literature suggested that former athletes perceive in-career weight-pressures as contributing to body image issues during retirement, we dedicated several questions to exploring athletes' competitive years (e.g., How did you feel about your body during your athletic career?). Similarly, as research shows that retirement from sport can be challenging, we also included general questions exploring this (e.g., Can you explain how the decision to retire came about?). The final and largest section of the interview addressed body image during retirement from sport. Specific questions addressed perceived body changes, the meaning of these changes, and associated coping strategies.

1.4. Data analysis

Data analysis was guided by the principles of reflexive thematic analysis (Braun & Clarke, 2019). Reflexive thematic analysis is a flexible approach to organising qualitative data into patterns of meaning or themes. It is an approach that emphasizes the active role of the researcher within six guiding phases: 1) data familiarization, 2) coding, 3) theme development, 4) revision, 5) naming, and 6) writing up. The researcher works with the data, drawing on disciplinary knowledge, philosophical assumptions, and their personal interpretive resources. As such, it is feasible for two separate analyses to yield different but equally plausible interpretations of data. Reflexive thematic analysis therefore openly acknowledges themes as a fluid process of construction and better guards against proceduralism; the naïve idea that following a rigid, linear set of methodological steps will deliver a reliable and correct "finding" (Harley & Cornelissen, 2022). Against this backdrop, we now delineate how each guiding phase was approached in this study.

First, I read each transcript at least twice as part of my data familiarization process. Initial analytical insights were noted to gain a sense of headline issues, interesting contradictions, unexpected content, and possible connections between transcripts. I asked; what types of stories have former athletes told? What is the emotional impact of reading these stories? What would it be important *not* to miss in the final analysis? These questions encouraged more interpretive, or "latent" codes and themes rather than descriptive "semantic" ones. A more systematic coding of the data followed, whereby I ascribed a brief descriptor to segments of text. The coding process was primarily inductive and

grounded in the data. This said, it is acknowledged that as a researcher I am not a blank slate, and my own positionality, as well as the study objectives and research questions, inherently oriented my analysis to certain elements of content.

The start point for theme development was to group codes according to commonality of meaning. With several codes grouped together, it was possible to note potential theme titles. Once there was a selection of potential themes, I considered similarities and differences across these and whether subtle changes in focus could result in codes being grouped differently. From here, it was important to decide which themes were the best candidates to answer the research questions and remain faithful to the interpretive spirit of the work. Just because a topic appeared regularly across participants' stories, did not guarantee that it featured in the final analysis. Rather, wherever possible, I explored opportunities to highlight nuance, uncertainty, and contradiction, hallmarks of human experience. I next checked tentative theme names against the raw data in terms of how authentic a representation each is. Once I had formally named and defined themes, they were presented to the wider research team for interrogation. The goal here was not consensus, but rather for my co-investigators to act as "critical friends" (Sparkes & Smith, 2014), challenging existing interpretations and, where relevant, offering competing/alternative insights from a different vantage point. For example, Karin Moesch, who has expertise working with acceptance commitment therapy, interpreted the data through an acceptance theory lens and offered this as a useful explanatory tool for me to consider. On then reading around the topic, I agreed with Karin's suggestions and amended my analysis. Alternatively, other suggestions made by the research team were *not* acted upon as I did not consider them to advance or improve my analysis in line with the story I wanted to tell. This resistance to critical friends is an important feature that separates it from the flawed concept of triangulation (see Smith & McGannon, 2018).

The final process of theme revision is during the final write-up of themes. I considered the quality of the story I was telling within the results and discussion section. A good research story is one that is coherent, persuasive, authentic, and speaks to the research focus in sufficient depth (Jonsen et al., 2018). The extent to which these qualities are made good on only becomes apparent when writing-up and if they are lacking, themes can be adjusted accordingly. As I wrote, I grappled with breadth versus depth and what to include within the confines of a journal word limit. I asked questions of my writing such as: How important is this theme to the participants? How aligned is this theme with the research goals? How novel is this theme within the wider literature? As part of this process, interesting themes may be lost as they do not fit within a focused analysis. Equally, less intriguing themes may be included as they support the primary contribution to knowledge or add context to the central insight offered.

1.5. Reflections on judgement criteria

Commensurate with our relativist ontological position, we proffer a *list approach* to judging the quality of this research. For Sparkes and Smith (2014), a list approach involves selecting judgement criteria, from a diversity of possible quality indicators, that best fit the research in question at that particular moment in time. What is included in such lists is a product of social discourse and will inevitably change over time; it is not fixed and foundational (Smith & McGannon, 2018). To this end, we offer here a selection of what we consider the most pertinent quality markers of *this study*. First, the topic of body image concerns in sport is a *worthy subject for study* (Tracy, 2010) given its ubiquity as an issue for athletes and the potential negative impact on their mental and physical health. Second, this is a *methodologically coherent* work, in that our philosophical position aligns with our research aim, our chosen methods, and how we present our results and conclusions (see Pereira Vargas et al., 2024 for a discussion on methodological coherence in sport psychology qualitative inquiry). Third, we collected a strong *critical mass of data*, amassing over 25 h of semi-structured interviews, and spent time

exploring and contemplating this data, individually and as a research team. Fourth, as discussed previously, the research team acted as critical friends by challenging my analysis and pushing it towards insights that stood up to scrutiny (Sparkes & Smith, 2014). Fifth, participants own words, that is our raw data, features prominently in our results, and has not been drowned by author voice. As well as communicating data collection rigour, allowing the data to "speak for itself" supports research to be *convincing* and therefore more impactful (Jonsen et al., 2018). We also invite readers to bring their own criteria list to evaluate this work, whereby they might ask questions such as: Do the arguments make sense to me? Do the results and interpretations prompt reflection? Have I learnt something from reading the piece? How might my future research and/or practice be influenced?

2. Results and discussion

We constructed four themes; 1) A legacy of body-conscious culture 2) The struggle for "normal", 3) Loss of body as loss of self, and 4) Towards new meanings and identities. We explain each of these themes using select anonymized athlete quotes to support our interpretations.

2.1. Theme 1: A legacy of body-conscious culture

This theme articulates how participants' former lives, entrenched in the body perfection culture of elite sport, can hold consequences for life post-retirement. Through Theme 1 we argue that the long-term pursuit of physical excellence carries a psychological legacy that shapes experiences of the body during retirement. A former Olympian in Judo commented:

You get to be really conscious of what is 500 g. I know what that looks like on my body. A kilo, I know how, where I could lose that or, if I was carrying a little bit extra, I can feel it, I can see it, so I'd be conscious about those tiny increments. (Katerina, judo, female)

Although this process of "making weight" is associated with disordered practices such as obsessive weight-monitoring, extreme dieting, and laxative abuse (Burke et al., 2021), these are widely perceived to be "means-end" and temporary rather than indicative of long-term pathology. Katerina challenged the idea that once the need to "make weight" is removed, athletes resume a regular relationship with food and weight. Sensitivity to "tiny increments" in weight, functional during her career, are considered an unnecessary burden after it.

Another former athlete identified social comparisons within elite sport culture as a factor influencing body consciousness after sport:

In sport you're so conscious of being in shape because obviously you're surrounded by athletes that are also in shape. If they look better than you or have that edge on you, it's like "oh I need to do something about it". I think probably, even looking ahead ten, twenty years, it is something that I am always going to be conscious of. Any kind of weight gain or anything, you notice it. (Simon, badminton, male)

Body-focused comparisons with athlete peers are an immediate and long-term driver of athlete body dissatisfaction and dieting behaviour (Galli & Reel, 2009; Papathomas et al., 2018; Vani et al., 2021). According to Simon, monitoring physical shape in relation to competitors breeds an enduring body consciousness that does not dissipate once competition ceases. Further, for some athletes, retirement does not remove all peer-based comparisons:

As an older athlete in the Olympic team, a lot of my teammates are still competing. So I follow a lot of them on social media and it's "man, they look fit [laughs]". So it's hard not to play the comparison game even though obviously that doesn't make sense, right? I'm not competing. (William, swimming, male)

Similarly, a former male diver stated:

It was weird, I hadn't seen like the diving friends for quite some time, I'd go see them and they'd be like "woah, you don't look good". "What do you mean?", "You look really skinny. You lost a lot of weight". So it was like "holy crap!" I didn't realise this. (Thomas, diver, male)

For William and Thomas, the boundaries between competitive life and retired life are blurred by continued contact with athletes yet to retire. Letting go of athletic body ideals may prove especially challenging when a retired athlete's social network includes individuals who still compete. Future research must explore how retired athletes can be supported through such connections without unhealthy comparisons.

Weight-related critical coach comments were also considered to have long-term consequences:

I don't think I'll ever look in the mirror and think yeah, I'm happy with that. I think it's an unachievable goal. It's really frustrating. I think I've picked that up from the way that the coaches have been putting pressure on me to look better. When I gained a bit of weight they would say we can't have you representing the country when you're looking overweight, it doesn't look good. (Seb, gymnast, male)

Athlete internalisation of negative coach comments about weight is a much-cited route to obsessive weight preoccupation, body dissatisfaction, and disordered eating (Beckner & Record, 2016; Voelker et al., 2021). Once adopted, the demonisation of weight gain (bad) and the unachievable pursuit of "better", are difficult attitudes to unlearn.

Although elite sport's legacy of body consciousness is internalised, for some athletes it becomes manageable:

I have thoughts that I would have if I were still a competitive, professional athlete. I notice them creeping into my head. If I look in a mirror and I'm like "oh, I look a little different to last week". I know that I'm healthy, but I still have those residual thoughts, it's just automatic. But I do a pretty good job of telling myself you don't have to worry. Even if I did gain some weight this week and then look a bit different from last week, it's fine, you are healthy. (Ella, diving, female)

Ella, like other retired athletes, has learned how to manage intrusive body-related thoughts by adopting a mindful and self-compassionate stance (Barrett et al., 2022).

2.2. Theme 2: The struggle for "normal"

This theme portrays the difficulties associated with adapting to non-elite life, specifically in terms of diet and exercise. Set within the context of the ongoing body consciousness described in Theme 1, retired athletes spoke of deep uncertainty regarding what constitutes *normal* eating and exercise behaviour:

I make sure that I train or workout at least five, six times a week. I'm giving myself a day off. When I first finished with rowing it was so hard for me to take a day off. I'm just so used to pushing it every day and I would cry if I couldn't workout, which was ridiculous. (Katy, rowing, female)

Another former rower offered similar thoughts:

this is going to sound stupid but I didn't really know what to do at the gym other than train for rowing. And that wasn't what I wanted to do anymore so I was a bit lost. And I did a few gym classes and didn't love them. I think my main issue was working out how much I needed to eat. My body still was craving the same amount of food, even though I wasn't doing the same amount of training (Rebecca, rowing, female)

Research into a sub-elite retired athlete population reported the absence of exercise guidance to be anxiety-inducing (Plateau et al., 2017a). Our

data adds support to this finding in an elite sample, as well as highlighting an absence of nutritional guidance as a further stressor. For our elite former athletes, transitioning from prescribed eating and exercise plans to planning for themselves was considered disorientating:

I didn't deal with it great and to be honest I still don't. I go through these phases of just one extreme to the other where I'm just kind of like, I don't really care, I'll go out with my friends all weekend, I'll drink all weekend, I'll eat pizzas and then I'll be on the other extreme where I cut my calories and monitor what I'm eating. (Seb, gymnastics, male)

The "all or nothing" approach to health behaviour is considered unsustainable (Meule et al., 2011). Efforts to maintain the regimented lifestyle of an elite athlete (the "all") are incompatible with post-retirement commitments (Plateau et al., 2017a). Equally, abandoning all healthy lifestyle behaviours (the "nothing") is untenable when the culture of athlete body-consciousness persists through retirement.

The widespread absence of guidance to support athletes on how to find a balanced middle path or "new normal" was recognised by many:

It was horrible, I was left on my own. I wish we had more support. I know you still can get a little bit of nutritional advice from the sports institute in [country], but unless you reach out to them they are not going to help out with it. It was more of like "ok, you're done". (Katy, rowing, female)

The literature is replete with examples of athletes dissatisfied with post-retirement support at the organisational level (e.g., Cosh et al., 2021; Knights et al., 2019; Papathomas et al., 2018). Absence of support can increase the distress experienced across the retirement transition (Brown et al., 2018), and our data suggests this may extend to challenges in regulating eating and exercise behaviour.

Some athletes accepted that had support been available it was unlikely they would have embraced it:

From a body point of view, I really must admit I could have had all the support I wanted, I just didn't feel like it. I just didn't feel like training programmes anymore, supervision anymore, somebody looking after my body anymore (Simon, badminton, male).

This quote presents a unique tension; athletes acknowledged the need for organisational support, while also considering it burdensome. Athletes are often reluctant to engage in pre-retirement planning (Lavalley, 2019) and can be equally reluctant to seek post-retirement help (Brown et al., 2018). Organisations must not only find ways to support retired athlete management of post-retirement body changes but do so engagingly.

Some athletes reported a process of becoming more attuned with the body's needs regarding both food and exercise:

I certainly recommend to get this natural sense back to the body. To feel when you have eaten enough or, if you are still hungry, you can still eat. So yeah as an athlete sometimes you can lose this feeling. As a lightweight it might be because you cannot eat as much as you want, and then you don't listen to the body, you cannot listen to the body. So at the end of the career, it's important to get this natural feeling for the body back. (Davide, rowing, male)

With regards to exercise, Annika stated:

I think I've developed quite good body literacy now. So if I'm tired, or if I'm feeling I'm a bit under the weather, I just won't do anything. Or if I'm feeling great and I fancy going for a run, I'll go for a run. I'll just trust that my body will tell me what it wants me to do. When you're an athlete, you're really in tune with your body in a lot of ways, but you override your body's natural signals a lot and you're training yourself to do that. (Annika, rower, female)

Eating and exercising intuitively reflects the process of attending to and trusting physiological cues for these behaviours (Reel & Miyairi, 2012;

Tribole & Resch, 2017). The observations of Davide and Annika echo previous studies that suggest intuitive eating and exercise can be disrupted by elite sport practices, and that reconnecting with these in retirement is important (Plateau et al., 2017a, 2017b).

2.3. Theme 3: Loss of body as loss of self

Theme 3 addresses how perceived body changes constitute a form of identity loss, which can worsen body dissatisfaction and wellbeing. As Silvia, a retired female swimmer, succinctly described: “*feeling like I wasn't measuring up, I don't know, I guess my identity had so long been tied to my body*”. The former elite athletes in this study demonstrated an appreciation for the embodied nature of their athletic identity:

if your body changes a lot, people are going to think you let yourself go, and I was terrified of that. I didn't ever want to meet somebody and feel like I had to hide the fact that I was a national team athlete, because I didn't want them to look at me like, “are you sure?” (Silvia, swimming, female)

If identities are embodied and socially produced, that is to say we are partly how others see us (Törrönen, 2014), embodied interactions can affirm the athletic self or lead to questions of its existence (“are you sure?”). Social interactions of this kind therefore hold potential to reinforce identity loss and heighten the negative emotions that accompany it.

If athletic identity is strong and exclusive (Ronkainen et al., 2016), bodily changes in retirement may be threatening and resisted:

I thought that I wouldn't mind losing the muscle but actually I do. I don't really care that clothes fit me better, I'd rather have muscle and feel unique in a way. I thought “oh when I lose the muscle it'll be so much nicer to wear all these clothes” - but it's not. I've just realised it's not really me. I maybe imagined that I would embrace being able to look more girly, but I don't really want to (Clara, canoe sprint, female).

Despite its pervasive popularity (Swami, 2015), a more “girly” appearance is rejected as “*not really me*”; body and self are one and therefore an athletic ideal is preferred. Almost all the retired female athletes in this study described a rejection of traditional conceptions of femininity. This finding differs to research in sub-elite athlete populations where some female college gymnasts, swimmers, and divers embraced newfound femininity and the loss of traditionally perceived masculine ideals such as muscularity (Papathomas et al., 2018).

As well as a change in appearance, athletes also discussed post-retirement body changes in terms of a loss in function:

I'm just now getting to the point where I don't make comparisons to my Olympic self. It was really difficult to not make comparisons when I was in the pool or the weight room or wherever. I'm cycling and I have no frame of reference for what I'm doing. I could be doing terribly but it's better than I did yesterday so it's good. Whereas in the pool it's still sometimes hard to get in and do anything because the comparison is really dark. (William, swimming, male)

For William, recognising the body's inability to maintain its previous Olympic capabilities is emotionally difficult, a “dark” comparison. The body's functionality in the performance realm represents an embodied athletic identity, therefore losses to this function are also losses to the self (Sparkes & Smith, 2014).

Although seemingly accepting of losses in athletic capability as part of an evolving identity, Katerina described how others expect elite sport functionality to remain:

People just always, like no matter how long you've been retired for, they'll go “you're an Olympic athlete”. But I'm not, that's years ago and that's a long way from where I am now, it's like another life. They'll always expect you to be an Olympic athlete. Even if I'm

running a little race or playing table tennis or something like that, oh you should be good at this you're an Olympic athlete. (Katerina, judo, female)

Katerina demonstrated how identity is constructed in relation to others. People interact with us in narrowly defined ways, they seek certain stories and shut down others; all of which can limit the self and what it can become (Holstein & Gubrium, 2000). There is social space for Olympic prowess, but new embodied meanings are silenced and delegitimised.

Returning to William, we gain an insight into the possible psychosocial consequences of a loss of the embodied self:

You move from being in denial to “oh man I'm out of shape”. You're not as confident in anything really, because as an athlete your confidence comes from, it's not your body image, it's your physical ability. And body image to me, those things are intertwined. It affects a lot of areas, not just my body image but it affects how I feel about the work that I'm doing, everything. (Participant 9, swimming, male)

Similarly, Cristina added:

like my body is my home and it's this gift I've been given to be able to live this life in this body, and if I'm not in full acceptance of that and have any kind of rejection or hate against any part of my body, that's like a powerfully negative force (Cristina, artistic swimming, female)

Body changes during retirement have a wide-ranging negative impact on psychosocial health, in line with the wider burden of retirement from sport (Park et al., 2013). Former elite athletes must manage these emotions, construct a new sense of self, or strive to maintain their former body ideal thereby preserving an embodied identity.

2.4. Theme 4: Towards new meanings and identities

Theme 4 articulates how athletes moved towards a healthier post-retirement body image through the construction of new meanings. New life pursuits held potential to lessen the focus former athletes place on their bodies:

I had periods where I was working in a job I liked or I felt like I had purpose in my day, or I was seeing my friends, then I felt better about my body because I just didn't think about it as much. I was more thinking about what I was doing in life. But then days where I didn't have as much to do and I was not sure about what I was going to do next job ... then the body image stuff got worse (Annika, rower, female)

Body dissatisfaction may not negatively impact psychological health if former athletes expand their identities beyond the athletic self. Although the importance of evolving identity to facilitate the athlete retirement transition is well-established (e.g., Lavalley & Robinson, 2007), this study explicitly connects this to improved body image.

Several former athletes in this study experienced pregnancy for the first time during retirement. Some considered pregnancy, and motherhood, changed the purpose of the body:

I need to make sure my body can be a good house for a child so maybe I need to gain a little bit of weight, that's a good thing. So I kind of had a positive relationship with that. So yeah that was all fine and honestly, I was pleasantly surprised at how my body responded to being pregnant. (Sara, steeplechase, female)

For Sara, pregnancy allows the idea of “weight gain” to take on a new, positive meaning: a safe and supportive home for her unborn baby. Whereas weight gain once constituted an attack on identity – an affront to the disciplined athletic self – it now supports a new identity; that of a loving, nurturing mother. Of course, not all retired athletes will experience pregnancy and for those who do, not all will consider it a positive

experience. In this study, some athletes considered pregnancy an additional threat to body image.

The construction of new meanings was evident in how retired athletes made sense of exercise and their motivations for engaging with it. For example, George, a retired basketballer, argued the advantages of a lifelong health and wellbeing focus:

You still can find a lot of joy and excitement from physical activity, and it's beneficial too ... I think as an athlete, sometimes you don't really think about the benefits because we are training our bodies for performance and for competition. Now it's more about wellbeing, it's about creating a healthy lifestyle for the rest of your life (George, basketball, male)

Annika echoed the lifelong health mantra:

I feel healthier now. It's just different. It's more how it feels rather than what it looks like. In terms of how it feels, I love feeling like my body has more energy ... when I was training all the time and weighing in, my periods stopped for a long time. Now I have those back and I just feel like my body is healthier in life now. Which I enjoy a lot more. I find it more reassuring. (Annika, rowing, female)

Finding new meanings in exercise has been shown to be important during retirement from sport, with "fun" a principal new focus in retired college athletes (Plateau et al., 2017a). The greater focus on health and wellbeing in the current sample may reflect the older average age of participants, 34 years old compared to 25 years old in the Plateau et al. (2017a) study. The wider benefits of exercise for physical and psychosocial health are a modern public health focus (Rueggsegger & Booth, 2018) and this could serve as an easily accessible and persuasive new way for athletes to make sense of exercise.

Lastly, constructing new meanings was recognised as a process and that body image concerns would inevitably resurface from time to time. Maria, an artistic swimmer, described how a sense of acceptance can be achieved even when body dissatisfaction persists:

I think everyone has bad days. All the women I've talked to have had bad days about how they view their bodies. A lot of times when we feel that way it's easy to stand in front of a mirror and pick out everything you hate. But I just try not to do that. I just try to recognise that it's going to be a bad day and I'm not going to like how I look that day, and just try and leave it at that (Maria, artistic swimmer, female)

Although counterintuitive, accepting and living with feelings of body dissatisfaction is an important step towards "moving on" as it diffuses the impact of these body dissatisfaction perceptions and reduces the drive to engage in behaviours to modify the body through rigid exercise and dietary regimes (Sandoz & DuFrene, 2014). Acceptance seeks to decrease the effort that one exerts to control or regulate inner experiences such as negativity towards the body (Twhohig, 2012). Most people experience body dissatisfaction at some point in their lives (Faw et al., 2021), particularly former athletes living under the legacy of body conscious cultures, therefore acceptance, not removal, may be one valid solution.

3. Applied implications and future directions

Can our applied efforts work to evolve elite sport cultures from body toxic spaces into healthy environments where athlete bodies are respected and cared for? Achieving this type of cultural change in elite sport is difficult, particularly for the applied sport psychologist. This is not to be defeatist, but rather realistic regarding the extent to which sport psychology research and practice can protect athletes from body related pressures. Weight will always be a performance factor in elite sport, a significant one in certain events, and some coaches and athletes will always seek to push it to the limit and beyond. Sport is inherently comparative and hierarchical, it is one pitted against another and as

such, body comparisons with peers are inevitable. So long as sporting success is tied to vast financial rewards, personal glory, and even national pride, the pressure to seek any possible advantage will persist, including the perceived advantage of becoming thinner. All this takes place under the broader influence of societal appearance pressures, as well as the growing threat of social media to athlete body positivity and mental health more generally. Navigating this perfect storm is likely to involve small steps relating to cultural practices with the acknowledgement that body related pressures will never be completely eradicated.

Our results echo findings that suggest an unhealthy obsession with the body and weight cannot be switched off at career's end (e.g., McMahan & Penney, 2013). Some have argued that weight-focused cultures in sport are driven by practices that constitute abuse, for example athletes are shamed and coerced into disordered weight-loss behaviours (McMahon et al., 2022). Yet weight-related surveillance is often normalised in sport and sport psychology as a field is notable by its absence in debates around safeguarding and abuse (Willson & Kerr, 2022). The first step may be simply to implement organisational policies that ban certain body-monitoring and surveillance practices. For example, after the Whyte Review (2022) exposed excessive and humiliating weighing practices, British Gymnastics provided 8-point regulations on "safe" weighing practices. For example, gymnasts under 10 years old cannot be weighed, consent must be given to be weighed, and weighing cannot occur more than once a month (British Gymnastics, 2023). Although welcome steps forward, whether such measures are sufficient is open to debate. For example, ten is still a young age to be weighed, monthly is still very regular, and given the cultural pressures to conform to coach demands, it is difficult to see how "consent" can be given authentically. As such, the sport psychologist's work might include lobbying more stringent policy change within the sports to which they are affiliated and educating power brokers as to why it is needed.

Developing evidence-based body image interventions for retired athletes, inclusive of appropriate diet and exercise plans, is a further important next-step (e.g., Barrett et al., 2022). Organisations must fund such research, as well as fund retirement care that includes an overt focus on body changes post-retirement, as part of a commitment to the lifelong wellbeing of athletes. In contrast, athletes in this study regularly reported a "thank you and goodbye" attitude from their Governing Bodies with support only available upon request, if at all. Tying weight pressures and body image concerns to safeguarding and duty of care via policy documentation may add a sense of urgency to improving such support. Where support is offered, the focus must bend towards increasing athlete engagement in potentially reluctant recipients. For example, our data suggested some former athletes experience "support fatigue" and would choose to disengage from body image-focused retirement support. Future research may therefore explore ways to facilitate athlete engagement in such initiatives at a time when athletes may be enjoying their autonomy and freedom from organisational obligations. Further, studies should explore the best time for this type of post-retirement support and what level of engagement and time commitment is needed from the athlete.

From a sport psychologist perspective, practitioners should be aware that their clients can experience body image concerns and body dissatisfaction across the lifespan, not just in their competitive years. Like organisational leaders, applied sport psychologists should be aware that body positivity work during sport is likely to have benefits after sport. Sport psychologists working with retired or retiring athletes must stay mindful of the body image concerns that occur during this time. Supporting athletes towards acceptance of body changes through approaches like acceptance commitment therapy may likely benefit. Cognitive reconstruction approaches may also support athletes to find new meanings in behaviours such as exercise (i.e., performance to health) and eating (e.g., fuel to pleasure). Relatedly, strategies that promote increased self-compassion towards post-retirement body

changes may also prove effective (Cormier et al., 2023). More broadly, our data suggests that for elite athletes, body image and identity are intertwined. If the athletic identity of an Olympian is embodied, when the athletic body fades there is a loss of self. This loss presents a double disadvantage: body dissatisfaction and identity crisis. Therefore, as well as traditional body positivity strategies, practitioners may also engage in identity work with their clients. Identity work might include exploring ways an Olympic identity is preserved beyond the body, as well as supporting the construction of new identities and a broadening of the self.

The voices of male Olympians are represented across all themes and show that body image issues, during elite sport and into retirement, should not be considered a female only issue. Although we interviewed fewer men and many described an easier transition, some experienced great concern over their changing bodies and described significant emotional distress. This finding is important given men continue to be overlooked in terms of body image concerns and may not receive appropriate support. More qualitative studies that build the bank of these seldom heard male voices are needed. A worthwhile research endeavour in this regard would be to explore *how* men construct body image differently to women and the implications of this for psychosocial health. Narrative analysis may be useful here, with its emphasis on how meanings are personally, relationally, and culturally produced (Papathomas, 2016). Busanich et al. (2014) offer a sound model for such research in their exploration of life story data of two distance runners, one male and one female. The male distance runner constructed disordered eating in a way that did not threaten masculinity, for example by downplaying its significance and packaging it as an athletic issue. In contrast, the female distance runner in the study more readily embraced medical discourses of disordered eating as an illness with adverse consequences. Further constructionist insights of this kind will help develop understanding of retired male athletes' body image experiences.

Finally, if interpretive work continues to increase in this space, scholars will need to more deeply consider the ethics of their research beyond simple procedural approval (Rossman & Rallis, 2010). Qualitative research that tends to athletes' life histories, that affords time across multiple interviews to explore challenging experiences, is more likely to encounter stories of harm, abuse, and even trauma. There have been important calls for research in sport to be trauma-informed; a flexible, adaptive process whereby the researcher actively responds to the specific needs of the trauma survivor (McMahon & McGannon, 2024). Trauma-informed research practices are particularly salient when considering athlete experiences of body image and disordered eating; experiences that can be caused by trauma and/or lead to it (Papathomas et al., 2024). Scholars setting out to study these topics should be mindful that some of their athlete participants are *likely to have experienced trauma* at some point in their lives (McMahon & McGannon, 2024). Detailed guidelines exist on how researchers can be more trauma-informed, with primary themes including but not limited to, survivor safety, collaboration, and empowerment (SAMHSA, 2014, pp. 14–4884). Such trauma-informed strategies therefore represent a necessary addition when striving to conduct ethical interpretive work into athlete body image (Papathomas et al., 2024).

4. Conclusion

This study offers further rebuttal to the misplaced assertion that body image pressures end once an elite athlete is removed from competitive sport cultures. Instead, the weight-based surveillance practices of the past may be carried forward and maintained into everyday post-sport life. Both men and women alike, across a variety of sports, can struggle with body changes during athletic retirement and the psychosocial consequences can be challenging, particularly in terms of identity loss. Although athletes find ways to manage the transition, such as working towards a new sense of self and a focus on physical health above performance, most regard it a challenging and long-term process. It is an

ethical imperative and moral duty for sporting organisations and sport psychology services to develop evidence-based ways to support elite athletes to better manage body changes when they retire.

CRedit authorship contribution statement

Anthony Papathomas: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Trent Petrie:** Writing – review & editing, Investigation, Funding acquisition, Conceptualization. **Karin Moesch:** Writing – review & editing, Investigation, Funding acquisition, Conceptualization. **Hannah J.H. Newman:** Writing – review & editing, Project administration, Methodology, Data curation.

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Data availability

The data that has been used is confidential.

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