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

Kelly L. Massey and Amy E. Whitehead

School of Sport and Exercise Sciences, Liverpool John Moores University, Student Life Building, Copperas Hill, Liverpool, UK, L3 5LD

Author Note

Kelly L. Massey  <https://orcid.org/0000-0001-8616-4687>

Amy E. Whitehead  <https://orcid.org/0000-0003-0611-364X>

We have no known conflict of interest to disclose.

Correspondence concerning this article should be addressed to Kelly Massey, School of Sport and Exercise Sciences, Liverpool John Moores University, 3.12, Student Life Building, Liverpool, L3 5GE. Email: k.l.massey@ljmu.ac.uk

Abstract

The elite athlete perinatal journey can transform identity related to fluctuation in training, physicality, and performance, thus highlighting the importance of the physical self. This study aimed to extend knowledge of physical identity and physical activity experiences across the pre-conception to postpartum period. Adopting a qualitative case study approach, an elite track athlete was interviewed at 2-years preconception, the end of trimester 1, 2, and 3, and 6-months postpartum. Interviews were analyzed using a reflexive thematic analysis, developing two themes: *My body is going to change* containing three *subthemes* and *Training for a big event* containing *two subthemes*. An identity shift occurred across the perinatal transition, influenced by body image, purpose and performance, physical activity, and motivation. This required adaptation of training processes, social networks, and body expectations. This case study demonstrates the fluidity of identity and the complex interplay between physical identity, motherhood, and physical activity.

Keywords: Elite athlete, pregnancy, motherhood, sport psychology, physical identity

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Introduction

Identity allows individuals to find meaning in life, a sense of purpose, and provide direction through associated expectations (Burke & Stets, 2009). For elite athletes the perinatal journey can cause their identity, which is often embedded in sporting culture, beliefs, and behaviors, to decline leading to a sense of loss (Massey & Whitehead, 2022). This journey is often associated with retirement from elite sport due to a lack of support and understanding (Davenport et al., 2023). Previous research has covered multiple aspects associated with the motherhood dilemma for elite athletes such as cultures of silence in elite sport (Darroch et al., 2019; Scott et al., 2022), pressured and penalized postpartum return to sport which lacks guidance and can result in injury (Davenport et al., 2022), and the ineffective alignment of pregnancy policy and practice (Massey et al., 2024). Yet, for those who achieve the return to a training program, athlete physicality, performance, and athletic identity may reappear (Massey & Whitehead, 2022). This emphasizes the importance of physicality in postpartum return to sport and the need to facilitate this through training.

Physical activity (PA) refers to any bodily movement resulting in energy expenditure regardless of level of skill and purpose and includes work, leisure, training, and sport (World Health Organization, 2022b). Exercise is a component of PA which involves a structured and repetitive program to maintain physical fitness (Caspersen et al., 1985) and, although another component of PA, training, follows a similar process, the purpose of exercise is to progress in physical performance. Whilst advancements have occurred in PA recommendations during pregnancy for the general public (Marino et al., 2023), there remains limited guidance or specific trimester considerations for highly active women such as elite athletes who surpass these recommendations in terms of intensity and duration (Hayman et al., 2023). Current research has debunked myths about heavy resistance training and high-intensity exercise, for example

engaging in heavy resistance training including Olympic lifts, supine weightlifting or high-intensity interval training during pregnancy does not increase the likelihood of detrimental outcomes to the mother or baby (Prevett et al., 2023; Wowdzia et al., 2023). Yet the applicability of the findings may be limited due to the controlled exercise protocol's relevance to real world scenarios, different sports, and potential bias in subjective online questionnaires. Increasing numbers of elite athletes are pursuing motherhood during their sporting careers, therefore further enhancements in research, knowledge and recommendations are required to support this growing population (Davenport et al., 2023). Focusing this on physicality and PA would offer a greater insight into the nuances of this journey to facilitate future research, transitional experiences, and support the retention of females in elite sport.

Athlete physical identity

As elite athlete mothers have expressed experiencing identity loss across the perinatal journey, bringing about negative emotions associated with their physicality (Massey & Whitehead, 2022), it is important to understand this identity. Identity theory defines identity as an individual's self-definition, associated with characteristics and behaviors which aim to give life purpose (Burke & Stets, 2009). Identity theory states that identity is multifaceted, fluid, and therefore influenced by situational change or when conflict occurs between the facets of identity (Burke & Stets, 2009). Furthermore, it is influenced by other identities (e.g., partner, student, etc.) as multiple identities may not act as single entities but interplay (Albarelo et al., 2018; Burke & Stets, 2009). The theory proposes an identity hierarchy where dominant identities have a greater impact on behaviors and beliefs (Burke & Stets, 2009). However, most elite athlete's identity, and therefore purpose, is embedded in sport. It is often perceived as a singular identity, referred to as athletic identity (Ryan, 2018). This contains traits such as high self-regulation, intrinsic motivation (Burns et al., 2019), and self-value that is positively correlated to physical performance (Ahmadabadi et al., 2014), are some of the characteristics, behaviors and experiences which shape their identity (Drummond, 2021). Furthermore, there is a focus on the

aspect of physical identity which pertains to physicality (Vasile, 2015). When considering an athlete's physical identity, this theory suggests it can be influenced and adapted during a period of increased physical ability or retirement from sport (Papathomas et al., 2018). An elite athlete may embrace or reject various facets of their identity, yet the athletic identity is likely to assert dominance (Ryan, 2018). However, for athletes who have an overbearing desire to obtain a mother identity (i.e. the adoption of the role, responsibilities, emotions, and behaviors associated with being a mother), this hierarchy may need to be renegotiated which could cause conflict.

Pregnancy's impact on physical identity

Physical identity will undoubtedly change in terms of aesthetics and performance during pregnancy and postpartum which brings about concerns, uncertainty, and loss of the physical athlete self (Massey & Whitehead, 2022). Perinatal impacts are considered as a necessary and temporary phase or an unwelcome threat to athletic identity (Martinez-Pascual et al., 2016; Tekavc et al., 2020). Common physical experiences include increased weight, not 'feeling' like an athlete, and loss of control (Martinez-Pascual et al., 2016). Physical adaptations include decreased performance (Tekavc et al., 2020), pelvic girdle pain (Bø & Backe-Hansen, 2007), and biomechanical changes (Jackson et al., 2022). These factors may cause incongruence between the present and desired physical self, as adherence of physical identity to sports related body aesthetics and performance standards influences the association to the athletic identity (Martinez-Pascual et al., 2016). When an elite athlete becomes a mother, physical identity changes as they adopt a 'new body' which may be embraced or resented (Martinez-Pascual et al., 2016; Massey & Whitehead, 2022). This can increase body dissatisfaction and a drive for thinness (Sundgot-Borgen et al., 2019) due to the lack of alignment to the athlete's physical identity. In contrast, positive experiences occur with strategic pregnancy planning around competition (Darroch et al., 2019; Martínez-Pascual et al., 2017), renegotiation of physical identity (Jin & Roumell, 2021), and viewing pregnancy as a temporary phase allowing

an opportunity for recuperation from the demands of elite sport (Martinez-Pascual et al., 2016; Tekavc et al., 2020). This is not to say training or PA should cease during the perinatal journey (Hayman et al., 2023; Marino et al., 2023), particularly due to the benefits of PA on mental health and well-being (World Health Organization, 2022a). Mental well-being exists on a fluid and complex continuum, influenced by factors including individual ability to cope with stress, make decisions, form relationships and shape their environment (World Health Organization, 2022a). Therefore, an elite athlete mother's ability to cope with the challenges of pregnancy may be enhanced through continuous engagement in PA. Yet, elite athletes are skeptical of current global perinatal PA guidelines (e.g., 150 – 300 min/week of moderate aerobic PA (Hayman et al., 2023) as their capabilities and PA engagement surpass these guidelines (Davenport et al., 2023). Current quantitative research demonstrates that high-intensity PA (87 – 105% maximal heart rate) can be tolerated by mother and fetus (Wowdzia et al., 2023) and continued heavy resistance training shows no adverse perinatal outcomes (Prevett et al., 2023). This means that pregnant elite athletes could engage in structured PA, addressing the need to feel their body being physically active (Martínez-Pascual et al., 2017) and retain a connection to their athlete physical identity (Jin & Roumell, 2021).

However, it is important to highlight that an individualized approach to PA during pregnancy is advised as opposed to a 'one-size-fits-all' approach (Marino et al., 2023; Tekavc et al., 2020). The specifics of this approach for elite athletes or trimester-specific considerations are yet to be determined (Hayman et al., 2023). Athletes require further proactive support and guidance through pregnancy and their postpartum return to sport (Donnelly et al., 2022). More research is required to understand the athlete physical identity and PA and how they change over time so that support can be put in place.

Research Purpose

Perinatal elite athlete experiences influence the perception of physical self, thus influencing their physical identity. As physical identity is positively correlated to self-esteem,

understanding experiences and outcomes is important for positive mental well-being (Vasile, 2015). To better support elite athletes' physical identity through their perinatal journey there must be greater comprehension of the nuances of perinatal PA. Few studies have provided an in-depth exploration of the impact pregnancy has on physical identity (Martínez-Pascual et al., 2017; Massey & Whitehead, 2022), with none providing specific attention to the relationship of physical identity and subjective exploration of PA across the pre- to postnatal journey. To support the retention of female athletes who aspire to be mothers in elite sport further research is required to develop postpartum return to sport protocols for athletes including understanding bodily changes (Davenport et al., 2023) on highly active elite athletes, and trimester-specific perinatal PA (Hayman et al., 2023). Therefore, this study aims to extend knowledge by exploring the longitudinal transition of physical identity and subjective PA experiences of an elite athlete from pre-conception to postpartum to better understand potential experiences and facilitate future elite athlete perinatal journeys.

Methods

Research design

Qualitative research recognizes the value of understanding social phenomena through an individual lens (Sparkes & Smith, 2014). A social constructionist positionality was adopted, utilizing a relativist ontology and subjective epistemology, and so acknowledging multiple individual realities, socially and individually construction of knowledge, and the interaction between researcher and participant interaction during data collection (Sparkes, 2016). The methodology used a longitudinal individual case study approach involving semi-structured interviews to gain rich insight into the subjective experience of physical identity and subjective PA across the perinatal journey. Considering the researcher is a reflexive tool and the social constructionist requirement to understand social context (Sparkes & Smith, 2014), it is appropriate to set forth the author's subjective perspective. The first author had a 10-year career as an elite athlete and six years' experience within various athlete support personal roles,

providing them with in-depth first-hand experience of the nuances of elite sport and thus, an insider perspective to this social phenomenon. The second author, who is a researcher and practitioner within sport psychology, offered an outsider perspective when acting as a critical friend. Although neither experienced maternity, they have an insight into the experience of maternity in elite performers via four years of research experience, therefore adding an academic lens to this experience.

Case study

Case studies involve focused attention and time on a single case of specific interest and context which present uniqueness or commonality with other cases (Stake, 1995). It is considered by some a methodological approach to generate a thorough and comprehensive understanding of complex phenomena in naturalistic settings (Crowe et al., 2011) whereas others consider what or who is being studied rather than how (Sparkes & Smith, 2014). Qualitative research design observing a social constructionist positionality and identity theory acknowledges and values the individuality of reality. Case studies provide the opportunity for the in-depth exploration of a social phenomenon to present findings through an individual lens (Sparkes & Smith, 2014), such as an elite athlete's physical identity and PA experiences during the prenatal journey. Hence, case studies may provide further knowledge to support the required individualized approach to PA during pregnancy (Marino et al., 2023; Tekavc et al., 2020).

Theoretical model

Connecting to social constructionism, identity theory acknowledges the personal and social construction of identity (Stryker & Burke, 2000), and that identity is multifaceted and fluid as a result of situational change, conflicting identities, and discrepancies in expected behavior and standards (Burke & Stets, 2009). Thus, provided a suitable underpinning theory to understand how elite athletes negotiate physical identity and PA in response to pregnancy. The following points informed by Stryker and Burke (2000) and Stets and Burke (2000) were used to

address the study aims: how physical identity and subjective PA change over time; factors influencing stability or change; the importance of and commitment to different identities; and the relationship between physical identity salience and purpose.

Participant

The participant was a female elite track athlete with a 12-year international career including winning relay medals at European, Commonwealth, World, and Olympic Games level, therefore classed as a world-class elite (Swann et al., 2015). The participant was a heterosexual British Caucasian female and will be referred to as she and her to abide by ethical conditions of anonymity. She experienced a natural pregnancy, vaginal birth, and except for an episiotomy which healed quickly, there were no complications. She was a former teammate and friend of the first researcher competing against each other in individual events and together as part of relay teams for seven years and continuing their friendship following the first researcher's retirement from elite sport in 2017. She became pregnant during her participation in another longitudinal qualitative study regarding identity transition during her sports career into retirement. Following the ethical approval from the author's institution (UREC Number: 19SLN014), they provided informed consent to become the participant in this current study.

Data collection

The first author conducted five face-to-face or virtual semi-structured interviews which took place at 2-years preconception (PC), retrospectively regarding seeking pregnancy (SP) within the end of trimester one interview (T1), at the end of both trimester two (T2), and three (T3), and 6-months postpartum (PP). The interview guides were informed by the research aims, the first author's experience of the elite sport environment, and past experiences of engaging with elite athlete mothers. All interviews explored the longitudinal experiences of physical identity and qualitative PA except for the first trimester interview which also covered retrospective experiences whilst trying to conceive. Questions were open-ended and flexible to allow the collection of rich data on personal experience, adaptation of questions because of

conversation, and development of new knowledge guided by the participant's discussion on topics of importance and purpose (Smith & Sparkes, 2016). Example questions include: *can you describe your physical identity? What is the purpose of your body? What are your thoughts on the purpose of your physical activity/training? How does your physical activity/training compare to last time we spoke? What is the most valuable thing you have taken away from this point in your journey?* Interviews (*M* length = 49:10 min, range = 42:36–62:51 min) were digitally recorded using a Dictaphone before transcription.

Data analysis

In support of a social constructionist positionality, a six-phase reflexive thematic analysis was adopted to explore rich experiences and perspectives on physical identity and qualitative PA (Braun & Clarke, 2021). Phase one involved data familiarization by the first author repeatedly listening to interviews and reading transcripts whilst making notes on initial thoughts and observations. In phase two, 13 initial codes containing 295 references were developed by using inductive reasoning to systematically group and label data of interest to the research purpose of exploring the longitudinal transition of physical identity and subjective PA experiences and deductive reasoning in relation to the previously mentioned points informed by identity theory (Stets & Burke, 2000; Stryker & Burke, 2000). The following phases occurred in a nonlinear fashion where self-reflection and engagement with a critical friend and the participant provided the opportunity to gain a deeper insight and understanding of the data. Within phase three the first author began to group initial codes according to recurring patterns and relationships to develop five potential themes before consulting with a critical friend (second author) during the reviewing stage in phase four. To ensure an accurate reflection of the participant's experience, potential themes were refined to ensure alignment with the research question, and repetitive, irrelevant, or unrequired codes and themes were removed before being reorganized for coherency. Removed codes include *advice and information*, *birth*, and *hindsight* as neither provided value in answering the research purpose. The content from the *social*

environment, *role* and *in limbo* codes was merged into the remaining codes due to repetition and commonality. Two remaining themes containing a total of five subthemes were named in phase five: *My body is going to change* contained *Mixed emotions*, *I'll lose my abs*, and *It's just ingrained in you*, and *Training for a big event* containing *The big event is just slightly different* and *A rough routine*. The report was created by the first author and challenged through continuous discussion with the second author in phase six to provide explanations of each theme, subtheme and how they transitioned across the perinatal journey using extracts from the participant's narrative. In addition, Figure 1 was created to show each theme and subtheme and the relationship between them and with physical identity. Reengaging with a critical friend occurred to challenge the interpretation and alignment of the research aims and methodology (Smith & McGannon, 2018). Additionally, the participant was offered the opportunity to provide reflections where they expressed their agreement with the observations made, before finalizing the report.

Quality

The following criteria, relevant to the research aims and methodology were adopted to align with relativity and the flexible nature of qualitative research and reflexive thematic analysis. The three criteria of worthiness, credibility, and sincerity as outlined by Tracy (2010) were selected. Furthermore, to recognize the importance of the conception, construction, and conduct in determining the quality of case studies (Thomas, 2011), Stake's (1995) case study quality checklist was consulted. The guidelines selected included the treatment of participants, clarity of methodology, findings, and interpretations. Yet, the requirement for triangulation was deliberately excluded to ensure congruency with the subjectiveness of this current study's positionality and identity theory. As noted by Davenport et al. (2023) and Hayman et al. (2023) research into this topic is timely and relevant and can provide significant contribution to a growing body of work. Credibility is addressed through the substantial time spent with the participant during data collection and providing opportunities for participant reflections to open

new dialogue, reflexive elaboration, feedback, and believability of the research findings (Sparkes & Smith, 2014). This process of respondent validation reduces limitations associated with case studies (Crowe et al., 2011). Finally, to support sincerity, rather than triangulation, the first author provided their subjective perspective and engaged with a critical friend who scrutinized the methodology and analysis process along with providing alternative views on the interpretation and presentation of data (Smith & McGannon, 2018; Sparkes, 2016). This allowed for the application of disciplined subjectivity (Sparkes & Smith, 2014) whilst aligning with a social constructionist's standpoint and the perspective of identity theory, which accepts individual reality and the individual and social construction of knowledge rather than refuting them.

Results

This study explored the longitudinal transition of physical identity and subjective PA of an elite athlete from 2 years pre-conception to 6 months postpartum to better understand physical identity and PA experiences and facilitate this journey for future elite athlete mothers. The following results present the themes *My body is going to change* and *Training for a big event* with subthemes discussed chronologically across the perinatal stages.

Theme 1: My body is going to change

The elite athlete mother's experiences and negotiation of body changes are explored in *My Body is going to Change* and presented in the subthemes of *Mixed Emotions*, *I'll lose my abs*, and *It's just ingrained in you*.

Subtheme: Mixed emotions

The participant's perception of and connection to her body along with the purpose of her body is highlighted with Mixed emotions. Her physical identity was shown to be connected to her body's purpose to perform in sport in the PC interview but "once I've finished athletics definitely the main goal is to start a family" This was a time when her physical identity aligned with an athlete as she would "definitely look at my body as if I'm an athlete," which remained

stable during SP due to no bodily changes. Yet, it was noted that SP was a “difficult” period as the statement below shows ambiguity in terms of body purpose:

I was trying to train, as if I was still going to compete this summer, but... I didn't really want to be competing. So that was quite challenging, luckily it didn't take us too long to conceive. So, I didn't have to sort of be in limbo for too long.

She discusses a disconnection between body and consciousness early in T1 as she “found it tough my body knew if I was pregnant, but I didn't. My body knew if I had a fertilized egg in it, but it was too early for me to know.” This was also a time when her body's purpose was changing as “your body's priority is the embryo and the baby. So that's taking most of your efforts and energy, rather than worrying about your own muscles.” This discord shifted in “week six it [morning sickness] hit me like a ton of bricks... that's when I definitely first started to feel more like I was pregnant... I didn't look pregnant.” Showing she felt rather than observed physical change which caused “mixed emotions, because I'm excited that I'm pregnant and I'm very aware my body is going to change. I think I just thought, maybe my bump is just going to change, and I'll lose my abs and that's fine.” Subsequently, the T2 interview noted that early in this stage was “the hardest phase. Sort of that in-between not looking pregnant but not looking like my normal self.” This continued until late T2 when she shifted to “sort of almost being back to feeling like my normal self with just a little bit of a bump” and indicating in the quote below a shift in physical identity which misaligns with personal identity:

I'm very different in a way to the [Participants' name] the Olympic athlete because I'm 6 months pregnant, although I am still that person, I'm not physically looking in the same sense that person...I'm sort of still very much viewing myself

as an athlete that is pregnant... So, I still have that mentality but definitely have noticed some changes over the last few weeks and months.

As she reflects on a physiotherapy session in T3 her bodies purpose was shown to change further, "she [physiotherapist] was telling me that the of prime purpose for me now is to focus on preparing my body for labor and giving birth rather than putting it through the stresses of a gym session." Before focusing on "feeding the baby" and "recovery" in PP. By the end of T3 her physical identity had "shifted away from being the elite athlete that's super lean to thinking of myself more as a pregnant person," causing her to "feel further away from the athletics world." She noted initially during the PP interview that she still "didn't feel like an athlete at all" due to "the first two weeks postpartum was very much in recovery mode." However, she said 6 months postpartum, "I definitely feel more like myself now than I did at two months, and it took a little while for my bump to go back down." Her 'mum' identity showed dominance and the athletic identity unstable when stating "I very much feel like a mum who, mum is number one and then, like, I'm a mum who is also an athlete or was an athlete or tries to be an athlete." Which progressed to feeling like "a postpartum athlete that has restrictions to what I can do on a track and those restrictions are postpartum reasons like my pelvic floor." This loss and regain of the athletic physical identity when making space for the mother identity is connected to the subthemes of *I'll lose my abs* and *It's just ingrained in you*.

Subtheme: I'll lose my abs

In the PC interview her body image was "pretty lean or, like, pretty light" and her body was "so finely tuned because we're talking hundredths of a second to make the difference in performance." She demonstrates an acute awareness of her body image when saying "I would look at myself, at this time of year and think 'okay, I'm 2kg heavier than I should be for race weight." Yet, she did not feel the need to "have to be 59 kilograms [race weight] to be classified as an athlete." This remained stable during SP until she mentioned taking photographs to log

the transition in the T1 interview as she was “not used to seeing my body get bigger.” She demonstrated an expectation that “I’m going to get a bump because I’m growing a baby... and I’ll lose my abs.” Yet, she perceived her whole body to change when noting ‘I’m looking at my thighs and I think God my legs aren’t quite as toned as they normally are, or my arms.’ However, at the end of SP “I look back at my six-week photo and I think I was tiny,” concluding “you’re more critical about yourself than others.”

The participant’s body image shifted in the T2 interview to “I very obviously look pregnant now, my bump’s a lot bigger.” Noting again the loss of her muscle mass and “you’re probably harsher on yourself, but my arms aren’t quite as muscly, or my thighs are slightly less toned.” She reiterates she was “very naïve and thought ‘oh, I’ll just have the same body, I’ll just have a bump instead of abs’ and I think actually sort of your whole-body changes.” There was an instinct to compare against her previous body as “you can’t help but look at your 26-week bump and compare it to your 6-week bump and see the difference in your body shape.” This brought about a new experience, “I never felt self-conscious about my body before, and I did notice that I was very conscious that I looked pregnant here. I don’t have the flat stomach, the good abs.”

She continued to note an increasing bump and decreasing muscle mass in T3 as, “losing your arm tone and your glutes are getting smaller, or the legs and your calves are getting smaller, and all that sort of stuff has been more challenging than I thought.” She discussed in the T3 comment below negative feelings when in a training environment:

I know it’s nothing to be, like, ashamed of or worried or conscious about but I just, yeah, I’m just so abnormal, I guess, that I just didn’t want to be training in a crop top so I would say I’m still self-conscious about it in that sense.

This caused her to feel “further away from the athletics world,” but was “trying to embrace the months of being pregnant and not worrying about how my body looks.” The PP interview showed the “main changes body wise is going from a 40-week pregnant bump back to washboard abs” and in PP she reflects on being 6 weeks postpartum highlighting:

I'm much more confident of my body now because I do to an extent have abs again so the fact that I'm pushing a baby around in a pram at the track and I am still able to train in a crop top with abs, I don't feel too self-conscious. I feel more confident training in an elite environment than I did at 34 weeks pregnant.

Subtheme: It's just ingrained in you

The participant motioned in the PC interview that mental well-being was influenced by body performance as “a bad session or a bad day in the gym I'd hold on to that more, a lot more and for a lot longer than if I had a really good day.” Challenging body performance was mentally rewarding during this time as “you feel really good even if you've got a horrible session, you could be hating it at the time.” Her capabilities surpass the midwife's PA recommendations during T1 as her “body is so used to doing so much more” and she “felt fine when running on the track.” However, the “biggest change” was the increased “breathing and heart rate.” Yet, she was “able to recover quite quickly.” Towards the end of T1, she noticed “balance being a little more off on some exercises but running seems to be fairly normal,” as “I don't really have much of a bump and I'm still able to do most things... it's not like it's putting a big strain on my back.” Despite feeling “quite good,” during a session of 100m sprints she recalled deciding to time one in T1 which evidenced how much her body had lost its ability to perform, “it was 16 seconds or something. I was so much quicker than that. But I am on grass, and in distant Spikes, so I'll give myself a break. It's ingrained in you to put a rep and a time together.”

She said in the T2 interview, “if I was on the track running 200s and timing my runs I would probably be aware of ‘I’m really struggling to run 35 seconds for a 200.’” However, she could no longer make “direct comparisons” with pre-partum performances because training altered, and performance changed considerably as “the bump is getting more in the way. I can feel it more when I’m running.” She was also not able to do the same “intensity of training or lift as heavy in the gym,” particularly explosive actions such as “powerful acceleration on the track and big deadlifts and power cleans.” However, discomfort during T2 was limited to “only hip discomfort a day or two after maybe doing too much running on a firm surface... it’s sort of a sharp pain but, like, it was a bit unsupported, a bit loose.”

In T3 she was “more tired than in the second trimester” yet explained “I can still do squats, I can still do single leg, RDLs, and deadlifts and all that sort of stuff.” She continued to highlight “I’ve not had any problems with my knees or my joints or anything like that or I’ve not done a gym session and felt like I’ve really been struggling with balance or extra weight.” However, due to increased hip pain she was no longer able to run:

the longer running sessions I was doing, the worse my hip was feeling after.

That’s why I stopped doing those and moved to the bike and then since I’ve done that I’ve not really had; I’ve not had to stop any exercise sessions or things like that because of pain or discomfort.

The participant discontinued bike sessions at 37-weeks as “my knees were hitting the bump [laughing]... I stopped because of logistical reasons. Actually, I don’t think I could sit on a bike [laughing].” She explained in the initial stages of PP body performance was said to have diminished considerably as “I was trying to walk again because I couldn’t even walk. We did a walk with the pram to, like, the post box, about 800m and I could barely manage that.” She was hindered by “a 5cm separation” in her abdominals and her “hips have all changed slightly from

having a natural delivery.” Requiring her to remind “the body how to try and sprint again. I certainly can’t sprint unless my pelvic floor is strong enough to maintain that.” She expressed surprise in how “it is amazing how your speed drops off massively if you don’t do it and you’ve gone through such a physical event like childbirth.” This led to her feeling “so far off what I would normally be like [4 seconds slower over 120m], the speed. Whereas grass sessions feel much more normal.” However,

gym stuff I’ve been more back to normal quicker because it’s more isolated and a different strain on the pelvic floor and the body so I’m back doing normal cleans, squats, dead lifts, that sort of stuff and slightly off the weight I was doing before.

The uniqueness of individual bodies in the postpartum return to sport is highlighted when she noted the progress is “slower than I thought it might be especially when you see some athletes getting back and competing within a year.”

Theme 2: Training for a big event

How the elite athlete mother negotiated her training in response to the perinatal journey with changes over time is explored in Training for a big event and was demonstrated in the subthemes of *The big event is just slightly different* and *A rough routine*.

Subtheme: The big event is just slightly different

The participants training purpose during the PC interview was to improve “times and qualify for major competitions [Paris Olympics]” noting “it would be nice to do better than I did in Rio four years ago.” She explains there was fluctuation in SP as she needed to maintain training to perform as pregnancy timing was uncertain, “if it had taken me a year, 18-months to conceive I probably be competing this summer. I didn’t change too much in case I couldn’t conceive.” In turn this changed her “mental desire and motivation,” and she comments in SP that “mentally I wasn’t putting the same effort into training, because I knew I didn’t really want to be

competing... training to make an Olympic team when you're not feeling motivated is quite challenging." This led to her moving coach to "a family friend" and "could bring them in on the secret." Training purpose changed for the first time during T1 as the "aim wasn't to run PB [personal best] sessions to qualify for Champs [Championships]. I was just trying to stay fit and active." Saying her coach described it as "I'm still training for a big event that's happening later this year. But the big event is slightly different." This "sparked up" her motivation as she adopted "different exercises," so she was not "doing the same stuff but just 20kg lighter."

She aimed to maintain "a reasonable level of fitness and strength throughout pregnancy. It's gonna be easier to come back than if I do nothing" and to reduce the risk of injury when returning to sport in T2. However, her motivation reduced as "if something came up then the training won't take priority." Although in T3 she desired to "keep up my strength work so I don't lag behind too much," her main training purpose was for "mental state... get my mind off other things" and "to keep yourself healthy." She lost sporting goals as she was "not training to compete anymore and I can't really train for physique... you don't see the same improvements as you would normally so that doesn't help your motivation." Her lack of motivation was considered an additional "barrier" along with "fatigue." In PP initially she admitted "training wasn't really on my mind" and she was "up and down. If you catch me on one day, I'll be like 'I'm so excited to get back into training and to try and do one more year and qualify for Paris. Then the next day I would be like 'let's just do fun training, retire, and enjoy life.'" The train or retire "dilemma" comes from the Paris Olympics being "so close it's tempting to carry on. It's only a year whereas if it was 2, 3 years away I would wanna 100% stop." Her training purpose shifted following the initial few weeks PP from "a case of gradually building up physical activity again before even thinking about doing squats in the gym or running on the track" so "I can get my muscle mass back up" and "I don't have to think about being postpartum."

Subtheme: A rough routine

The participant points out that training dictated her lifestyle such as living “in a different location to where I would call my home” during the week for training “then weekends I'd go back home to where my husband lives” during PC. Her schedule usually consisted of “training for, like three hours a day, six days a week” and “physio or recovery in the afternoons.” She said during SP, “until I've got the positive pregnancy test it [training] was pretty much the same.” However, “sessions were taking 90 minutes, as opposed to three hours with all the added rehab and prehab and that sort of extra stuff.” In T1 she explained until week six “training carried on pretty normally” however, in week six she “started to feel nauseous so that week was probably my worst week, and I didn't do a lot of training because I just felt grim.” For weeks seven to 12 “nausea was generally in the evening. So, for most of the day, I felt fine to go to the track and do some training, but we just reduced it slightly.” This reduction was in terms of “speed,” “more recovery,” and doing “dumbbell work, single plate stuff.” The second half of T1 she was “more comfortable to push myself a little bit more in training as the risk of miscarry is disappearing.” A “rough routine of five days a week... three running sessions two gym sessions” returned with specific changes including the amount and orientation of weight. For example, “squatting 80kg... that was quite comfortable because I'm used to squatting over 100,” and “10kg dumbbell single arm cleans and press which normally I would have 80kg on a barbell.” Heart rate was limited to “170 [bpm] something... but the pace was so slow it seemed pathetic, which is when I then started doing more on the bike. I felt I could keep my heart rate lower but work to a higher lactate threshold... the only pregnancy related training I've done is pelvic floor exercises.”

Her training program was said to be “at least two aerobic sessions or, two bike sessions, maybe a running session a week, two gym sessions” in T2. Logistical changes included sessions “at home and two sessions on the grass or in a public gym, and one gym.” Her “coach doesn't wanna be, ‘right do this session on the bike’ and I've the mentality of ‘right, this is the session that I've been set so I have to do it’ if it's not quite right doing it.” Therefore, “I'm managing it more myself on a daily and weekly basis.” Specific adaptations included changing

to “interval type runs for 30 seconds, walk 30 seconds... bringing down the volume,, and changing the surface [to soft grass] to make running still possible.” She was “doing press ups on a bar so my bump is not going to the floor,” using a hex bar for squats and deadlifts “opposed to having something on my back, for more freedom of movement and to move weights in line with me for balance as with a barbell the weight’s in front of you, when you’ve got a bump your center of mass is already in front of you more.” Her prehab consisted of “more calf raising, isometric hold for Achilles” along with “hamstring strength work.”

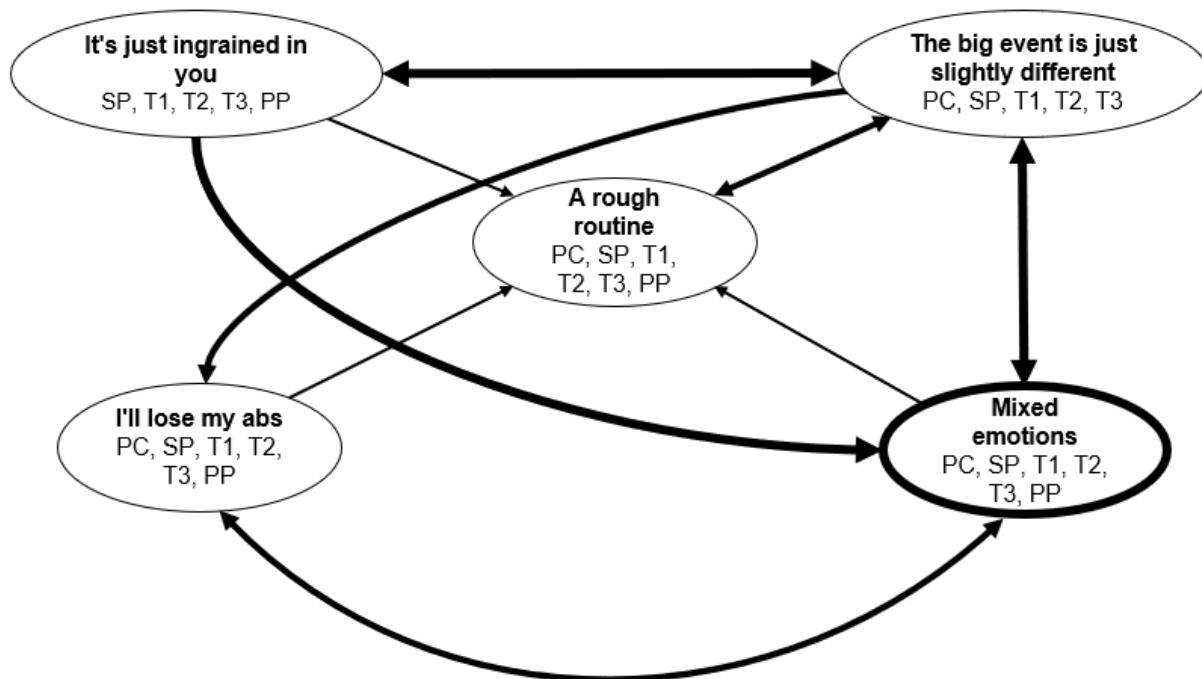
She explains in the T3 interview “the only change is that my Pilates has gone up and my strength stuff’s gone down. But to be fair they’re [gym sessions] similar to what they were in the second trimester.” However, she reduced the duration and split over multiple days for example “I’ll be in a gym for half an hour, so I’d just do my leg section today and I’ll do arms tomorrow.” She stated that “I stopped running due to it being so hot and it was unbearable... I did my aerobic session on the bike... up until about 37 weeks when the main aerobic fitness is walking.”

Her training program did not exist initially in PP. But “once I hit six weeks postpartum that’s when I started doing really light stuff in the gym kind of what I was doing at say, almost full-term.” Training progression was organized in “two weeks blocks so even if the session was fine, I would do the same for two weeks and then move up.” It was “around two months that I started doing more gym-based stuff” (e.g., barbell cleans, squats, and deadlifts). “Stuff on the track consisting of about half an hour... a few walking drills, a very gentle jog.” Then “around four months I actually did what I would call more of a proper session on the track lasting about 90 minutes” (e.g., 80m runs which progressed by 20 meters every two weeks).

Map of physical identity and influential subthemes

Figure 1

Map of a Female Elite Athletes' Physical Identity and Physical Activity



Note. Figure 1 provides a visual representation of the interconnections between the subthemes. It demonstrates how these relationships are complex, often reciprocal, and vary in magnitude and direction of influence.

Although the findings of this study are presented in separate themes and subthemes, it is acknowledged that these are not siloed. Indeed, they are interconnected in complex relationships, often reciprocal, and vary in magnitude and direction of influence. Figure 1 provides a visual representation of how these interlink. Body performance (*It's just ingrained in you*), training program (*The big event is just slightly different*), body image (*I'll lose my abs*), and directly impact physical identity and body purpose (*Mixed emotions*). Within this study physical identity and body purpose directly impact training program, training motivation and purpose, and body image. With training purpose and motivation (*A rough routine*) displaying an indirectly influence physical identity and body purpose through their impact on the subthemes which directly influenced physical identity and body purpose. Physical identity and body purpose appears to influence body performance via the same indirect process. Adding further

complexity, the magnitude of these influences varies, demonstrated by line thickness, and determined by the frequency of the occurrence of these relationships being discussed by the elite athlete mother. Physical identity and body purpose, body performance, and training program appear to be the most notable relationships regardless of the direction of influence. The influence of physical identity and body purpose's and training program's on body image, and training program with training purpose and motivation along with the influence of body image on physical identity and body purpose and the relationship between training program and training purpose and motivation appear to be the second most influential. With body performance, body image, physical identity and purpose on training purpose and training motivation appearing to be the least influential.

Discussion

This study aimed to extend knowledge by exploring an elite athlete's longitudinal transition of physical identity and subjective PA experiences from pre-conception to postpartum to better understand potential experiences and facilitate future elite athlete perinatal journeys. Identity theory will be used to explore the findings following points informed by Stryker and Burke (2000) and Stets and Burke (2000), how physical identity and subjective PA change over time; factors influencing stability or change, the importance of and commitment to different identities, and the relationship between physical identity salience and purpose.

The participant's physical identity and PA changes occurred simultaneously from pre-conception to postpartum. During pre-conception there appeared a strong association with the individual traits and training characteristics expected of an elite athlete e.g., 'singular identity' (Ryan, 2018), athletic appearance, and performance (Ahmadabadi et al., 2014). For the participant these remained stable as influential factors such as body purpose, image, and performance were committed to conforming to elite athlete expectations. However, when the desire to achieve the mother identity took precedence, it led to an identity conflict. Since it is not possible to act on a conflicting identity without the discrepancy of the other, distress may occur

or the need to change and compromise (Burke & Stets, 2009). In the current study this was displayed through a reduction in importance, commitment, and training motivation to maintain athlete physicality occurred. Yet, her physical identity and PA did not change due to the uncertainty of conception and the requirement of the participant to maintain body performance for the purpose of competition. Notably, the changes in standards (i.e., commitment and motivation to train indicate that personal identity shift (Burke & Stets, 2009) occur before physical identity.

The participant in the initial stages of pregnancy began to experience a physical and cognitive disconnection from the athlete physical identity. Influenced by her body purpose and image, with particular reference made to muscle mass and definition moving further away from that which is expected of an elite athlete, causing a reduced association with an athletic identity (Martinez-Pascual et al., 2016). Challenge occurred from the lack of alignment of physical identity with a pregnant person due to body image in the initial stages of pregnancy, which is reduced when the physical identity begins to align more to being pregnant (Smith, 1999). This shift away from the athletic and towards the pregnant identity increased across pregnancy, culminating during the later stages of trimester three. Followed by the continued loss or reduced of the athletic identity into early postpartum before being recovered and renegotiated to encompass the mother identity. The more salient an identity is, the more likely it is to be prominently displayed (Burke & Stets, 2009). This current study identifies a shift in salience from an elite athlete physical identity, towards a pregnant athlete, and eventually adopting a pregnant person's identity. Here the participant's identity hierarchy was observed to slowly move from the dominant athlete to the dominant mother, demonstrating the gradual process of identity change.

There was an inverse relationship with body performance which may be explained by the positive correlation between performance and athletic identity (Ahmadabadi et al., 2014). She referred to her PA as 'training' yet, the purpose of this PA aligns more with the definition of exercise (Caspersen et al., 1985). This reduced across pregnancy in intensity, volume, and

frequency, and in training adaptations such as weight orientation or training surface. Due to an increased body size, pregnancy-related changes, and discomfort these adaptations are necessary. Demonstrating the complex and reciprocal relationship between training program, body performance and in turn, physical identity, as this may bring further disconnect from the athlete body due to a loss of control of fitness, weight, and muscle (Martinez-Pascual et al., 2016). Previously PA has been shown to be consistent with and predicted by athletic identity (Reifsteck et al., 2013). Yet, this study demonstrates the impact of PA on athletic identity as these factors contributed to the participant's body image transitioning away from an athlete and towards a pregnant person and a reduction in the commitment to upholding athletic physicality due to declining motivation and loss of a sports related purpose to a purpose dictated by pregnancy. Her athlete physical identity remained important indicated by the negative feelings of body abnormality and being physically and metaphorically further away from elite sport. These negative feeling may be attributed to the negative correlation between physical identity and self-esteem and the positive correlation between subjective body image and self-esteem within women (Vasile, 2015). The loss and regain of an athlete personal and physical identity along with a renegotiation of identity hierarchy is well documented across the perinatal journey (Massey & Whitehead, 2022; Tekavc et al., 2020). In the current study, the postpartum return of an athlete physical identity appeared to be a slow process due to the initial dominance of the mother identity, recovery, and the body's inability to do routine PA before engaging in a sports related training program. Body performance and body image was perceived to improve as PA increased to resemble exercise and then towards that which resembled pre-pregnancy training practices. These are two influential factors in postpartum athlete mothers' physical identity which emulate that of an elite athlete again (Massey & Whitehead, 2022). Body purpose and training motivation and purpose remained in a state of limbo due to the uncertainty of the participant's desire to regain or relinquish her athlete role. Demonstrating instability in the commitment, importance, and salience of the athlete physical identity. Commitment was a key

influence on identity salience and lack of commitment in the case of our elite athlete mother brought about negative emotions (i.e., feeling in limbo) (Burke & Stets, 2009).

The participant demonstrated a strong commitment to her athletic identity prepartum such as training practices, lifestyle decisions, and physicality. A high level of identity commitment is associated with increased social connections and expectations on identity standards, making identity change challenging (Burke & Stets, 2009). These social connections (i.e., training groups) comprise of interconnected identities and behavioral expectations which when deviated from can cause negative emotions (Burke & Stets, 2009). Martinez-Pascual et al. (2017) noted the need to address challenges from non-sporting social connections who questioned the suitability of elite athlete mothers' PA behaviors. Whereas in the current study, changing social networks by moving training group and coach brought about positive emotions such as motivation and salience of the athlete physical identity during pregnancy in terms of training and accepting body image would misalign. This relates to psychological preparation for motherhood through the shift in priorities, withdrawal from wider society, and can result in change in self-perception (Smith, 1999). Due to this change, behavior expectations of an elite training group were removed and renegotiated within training adapting (e.g., weight orientation, single leg movements, and different training surfaces).

For those in and outside of the elite sport environment, there is a common assumption that motherhood signifies retirement from sport (Darroch et al., 2019). The participant in the current study shared this view as motherhood was something that would take place when sporting commitments and goals ceased, and the athletic identity abandoned. However, her commitment to regaining athlete physical identity postpartum was shown through their training program, purpose, and motivation. Her athlete physical identity and PA remained to various extents across the perinatal journey. Her body image appeared to play a key role in the presence of athlete physical identity as this reduced when her 'bump' grew and increased postpartum as abdominal muscles returned. The ability to perform appeared to be positively

correlated to athletic identity therefore, if sporting performance reduces its alignment to the expected norms for an elite athlete, so too will physical identity (Ahmadabadi et al., 2014). The athlete physical identity and training related practices were maintained in the initial stages of pregnancy up until body performance required adaptations to be made.

The participant's physical performance capabilities in weight training, running, and training heart rate surpassed that of the capabilities and recommendations for the general public across all stages of pregnancy. Although the participant demonstrated resistance to high-intensity training risk, she moderated exercise intensity to reduce the risk of miscarriage which indicated training transitioned to exercise due to no longer seeking performance enhancement. In alignment with the athlete within this study, Sundgot-Borgen et al. (2019) identified that this practice is not uncommon amongst athletes across the full pregnancy journey. This may be associated with nausea experienced in T1 and increased discomfort in T3 by the athlete in the current study. However, they noted fatigue to be greater in T1 rather than in T3. Individuals with shared identities have a sense of belonging within the same social group and consider others who have shared qualities as 'in-group' members (Stets & Burke, 2000). Additionally, other elite athlete mothers have been shown to struggle to relate to non-athlete mothers for reasons such as the requirement to return to training meaning athlete mothers do not engage in traditional maternity leave practices (Massey & Whitehead, 2022). This may explain the adoption of the pregnant athletic identity rather than the complete suppression of the athletic identity. While the mother identity is evident in practices aimed at reducing risk, aspects such as training, body performance and mentality aligned more to that of an athlete than non-athlete. Allowing an athlete to perceive continuity of prepartum training practices and identity (Martínez-Pascual et al., 2017).

Strengths and Limitations

The use of both face-to-face and virtual interviews may cause inconsistencies due to changing dynamics. Further limitations arise from the implicit expectation placed on the

participant to continue during face-to-face interviews, potentially hindering their ability to terminate the interview if needed (Lobe et al., 2022) and challenges in observing social cues such as body language within virtual environments (Smith & Sparkes, 2016). However, each method addresses some of the limitations of the other, for example, virtual interviews support discussions around sensitive subjects and face-to-face interviews provide an opportunity to observe visual cues such as body language (Smith & Sparkes, 2016). The perception of visual cues and exploration of sensitive topics are enhanced by the insider approach due to intimate knowledge. However, insider blindness may lead to reduced subjectivity in exploring alternative views (Taylor, 2011). Although subjectivity is welcomed within the current study, research positionality a critical friend, and participant reflections were used to challenge interpretations and provide alternative perspectives. The rich, chronological data representation provides emphasis on time and individual description to support vicarious experiences and naturalistic generalizability (Stake, 1995). Yet, readers are urged to consider generalizability limitations such as the participant characteristics of being a white, heterosexual, western female athlete. The uniqueness of each sport, pregnancy, birth, and individual athlete constrains the applicability of a uniform approach to supporting elite athletes' physical identity during the perinatal journey (Hodge & Sharp, 2016). Therefore, future research needs to consider the inclusion of a diverse intersection of participants. However, as cases are rarely a singular occurrence (Stake, 1995), it is hoped that this current case study offers naturalistic generalizability or transferability, illuminates potential experiences and considerations across this transitional journey to support future experience of active perinatal women, modifies existing views of this population, and supports further research (Smith, 2018).

Conclusion

The current case study is the first to explore physical identity and PA from pre-conception to postpartum demonstrating how they change simultaneously throughout the transition from elite athlete to elite athlete mother for this participant. The findings highlight the

participant's strong commitment to and dominance of her athlete physical identity during the pre-conception period. However, there is a discernible reduction in the dominance of this identity upon contemplation of motherhood, with personal identity shifting before physical identity. The participant's athlete physical identity began to gradually decrease at the end of T1 and across the pregnancy journey, culminating in the PP phase. An identity hierarchy shift was demonstrated when transitioning from an athlete to an athlete who is pregnant, to a pregnant person, and finally to a postpartum athlete. This transition was influenced by factors including body image, body purpose, body performance, PA, and PA motivation, requiring adaptation of PA processes and social networks, and renegotiation of expectations. This case study highlights the complexity and fluidity of identity transitions among elite athletes, demonstrating the complex interplay between physical identity, motherhood, and physical activity. Case studies offer the opportunity for the in-depth exploration of complex social phenomena such as the experience of elite athlete physical identity and PA across the perinatal journey. Developing a comprehensive understanding to inform future research to explore this complex and unique experience to form collective cases and inform provisions, and practices. Additionally, due to the value in the shared experiences of other elite athlete mothers, it is desired that these findings provide comfort in the possibility of achieving motherhood in elite sport.

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