

## Wellbeing in high-performance swimming: A grounded theory study

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### ABSTRACT

The demands of elite sport have the potential to negatively impact on athletes' wellbeing (e.g., Arnold & Fletcher, 2012; Rice et al., 2016). Despite this, not all elite athletes experience detrimental effects, rather some individuals thrive in an elite sports environment. The reasons why some athletes experience positive wellbeing while others struggle remains unclear although, in part, due to methodological limitations of previous research. To overcome these limitations, the purpose of the current study was to examine how change in high-performance swimmers' wellbeing occurs. Grounded theory methodology was used to enable examination of processes of change. Semi-structured interviews with 22 current and five retired swimmers, eight coaches, and seven support staff were used to generate data alongside observations and field notes. The resultant theory illustrated how a dominant performance narrative influenced the development and maintenance of an exclusive swimmer identity that was tied to performance. Specifically, transitions were highlighted as critical points where wellbeing was likely to be affected, due to the increased potential for change and uncertainty to impact on performance and subsequently identity. However, the use of proactive coping strategies, such as anticipating and planning, as well as accessing and utilising appropriate support were shown to help minimise the impact on wellbeing.

Sport offers an avenue through which individuals can realise their potential through the pursuit of peak physical performance and athletic excellence (Martindale et al., 2014). Additionally, participation in sport for people of all ages has been shown to facilitate numerous positive psychosocial outcomes, including feelings of empowerment, increased confidence, competence, self-esteem, and self-efficacy, as well as a sense of belonging, social interaction, connectedness, teamwork, and sports-personship (see e.g., Anderson-Butcher, 2019; Kim et al., 2020 for reviews). Sport also provides a source of enjoyment and is often perceived to impact positively the wellbeing of those who take part (e.g., Wilson et al., 2022).

However, participation in sport does not guarantee these positive outcomes. At the elite level in particular, life as an athlete often means making numerous sacrifices in the pursuit of improved performance (Douglas & Carless, 2006). In doing so, many elite athletes endure rigorous and intense training regimes, and follow strict diets to maximise energy and performance whilst maintaining the required body composition for their sport (Reardon & Factor, 2010). Further, elite athletes are expected to be role models and often face intense media scrutiny across their professional and personal lives (Scarf, 2008). Indeed, athletes face a variety of sport-related stressors, that include

overtraining, injury, performance difficulties, career transitions, and high expectations of others (Rice et al., 2016). As a result, elite athletes are vulnerable to experiencing negative psychological outcomes, such as burnout, anxiety, and depression (Arnold & Fletcher, 2012; Rice et al., 2016).

Despite this vulnerability, the prevailing public perception of elite athletes is often that they are mentally and physically superior to the general population (Hughes & Leavey, 2012). However, increasingly, high-profile athletes are speaking publicly about their experiences of elite sport, with many highlighting the negative impact that sport has had on their wellbeing (cf. Newman et al., 2016). But not all elite athletes experience declines in wellbeing. The reasons why some athletes experience declines in wellbeing while others do not remains unclear. As such, there is a continuing need to explore wellbeing within the context of sport.

### 1. Conceptualizing wellbeing

When embarking on studies of wellbeing, it is important to acknowledge how it is being conceptualised. Hedonic (i.e., wellbeing as the pursuit of positive emotions or satisfaction with life; emotional

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wellbeing) and eudaimonic traditions (i.e., wellbeing as the pursuit of achieving one's potential; psychological wellbeing), whilst both popular, had been at odds for some time (Ryan & Deci, 2001). As a result, researchers argued for the perspective of a combined 'subjective wellbeing' that considers both hedonic and eudaimonic wellbeing as distinct but important elements of a multidimensional concept (Keyes, 2002; Magyar & Keyes, 2019). The subjective wellbeing perspective was adopted within the current study.

Further, when conceptualizing wellbeing, consideration of the relationship between mental health and wellbeing is needed. Specifically, some authors have argued that wellbeing is the positive end of the mental health continua, wherein wellbeing is considered as related to but independent from mental illness (i.e., mental health encapsulates both wellbeing and mental illness; Keyes, 2002). Although useful, categorical models of wellbeing as part of mental health are rarely theoretically robust and lack a clear philosophical position (e.g., Agenor et al., 2017). Further, state approaches (i.e., wellbeing as something we either have or do not have) may not adequately reflect the dynamic experiences of life. Thus, within the current study, we use wellbeing as a standalone term, along with mental illness. Given that we were interested in *exploring subjective wellbeing* independent of mental illness, we did not investigate mental health in the present study.

## 2. Dynamic nature of wellbeing

As suggested above, we view wellbeing not as a static trait, but a state which fluctuates based on sociocultural factors and events in life (Galderisi et al., 2015). That is, wellbeing is ever-changing, dependent on the person and the wider socio-cultural context in which they operate (Uzzell et al., 2022). This approach to considering wellbeing may explain why the same factors can have varied impacts on individuals' wellbeing. For instance, previous studies have highlighted a wide array of personal (e.g., identity, performance), social (e.g., relationships, support), and environmental (e.g., leadership, culture) factors (see e.g., Kuettel & Larsen, 2020 for a review) that appear to affect athlete wellbeing. But the ways in which these factors influence athlete wellbeing are not straightforward. For example, some studies have found athletic identity to be linked to positive wellbeing outcomes such as sport satisfaction (e.g., Burns et al., 2012), while others have highlighted the negative impact of high levels of athletic identity on wellbeing, specifically during retirement (Haslam et al., 2021) and injury (Renton et al., 2021).

Individuals are engaged in many domains in their lives, within each of which they are thought to experience domain-specific wellbeing that in turn influences their overall wellbeing (Keyes, 2002, 2007). Initial research has supported this argument in the context of sport, where quantitative research has shown that athletes' overall wellbeing is closely correlated with, but not entirely explained by, wellbeing in sport (i.e., Foster & Chow, 2017). Qualitative research has similarly found that athletes and coaches may navigate sport-specific threats to their overall wellbeing by choosing to focus on other important domains of their lives like family life (e.g., Pankow et al., 2021; Pankow et al., 2022). However, further research examining the dynamic nature of wellbeing as it relates to sport can highlight potential pathways through which athletes' overall wellbeing is impacted by events occurring in the sport domain.

Some research has begun to explore wellbeing processes among athletes and coaches from a mental health perspective. For instance, in a qualitative study with six women university athletes over the course of a sport season, athletes high in wellbeing scores at the beginning of the season engaged in different strategies to promote and protect their wellbeing at different times of the season (Pankow et al., 2021). In the pre-season stage, athletes built their wellbeing resources by planning their in-season schedule and making time for family and friends. In-season the athletes moved into a wellbeing maintenance phase which involved spending time with non-sport friends, re-framing sport

setbacks, and communicating clearly with their coaches. After the season, athletes took time away from sport to relax, and reflected on their growth during the season to reinvest in their wellbeing. In a later study that included coaches and support staff, athletes experienced wellbeing outcomes as the result of a process of sport-related growth in an adequately supportive environment (Pankow et al., 2023). However, in both studies the authors' focus on the individual and relational process of wellbeing meant that the interactions of other influencing factors were not fully explored.

### 2.1. The current study

Although existing studies (i.e., Pankow et al., 2021, 2023) provide some understanding of different wellbeing processes, and particularly highlight steps taken by athletes, coaches, and support staff (e.g., Hill et al., 2021), to manage wellbeing at different times during a competitive season, to date, limited research has considered how individual, social, and environmental factors interact and influence each other to impact on athlete wellbeing in different ways at different times (e.g., Purcell et al., 2019). As such, to progress our understanding of athlete wellbeing and particularly understand why changes may occur in wellbeing, there is a need to consider how person, time, and social-contextual factors interact to influence wellbeing within the specific context of sport. To this end, the purpose of the current study was to examine how change in high-performance swimmers' wellbeing occurs. To address this aim, three specific research questions were addressed (1) How is the dynamic and multidimensional process of wellbeing experienced by swimmers? (2) What are parents, coaches, and support staff perspectives regarding wellbeing within the context of high-performance swimming? (3) What are the key personal, environmental, and sociocultural factors underpinning change in high-performance swimmers' wellbeing? And in what way are these factors influencing such change?

## 3. Method

### 3.1. Paradigmatic and methodological approach

Grounded Theory (GT), specifically Straussian Grounded Theory (Corbin & Strauss, 2015) was the methodology adopted for the current study. GT studies are particularly useful in the investigation of research topics that involve change and adaptation, as well as those that involve social interactions and environmental influence (Benoliel, 1996). That is, GT is best suited to research questions that focus on 'process' (Holt, 2016). As the present study was interested in explaining the process through which changes in high-performance swimmers' wellbeing occurs, GT methodology (GTM) was deemed appropriate.

Straussian GTM (Corbin & Strauss, 2015) was used due to the alignment of research team's philosophical perspectives and those associated with this approach. Specifically, although earlier versions of Straussian GTM were considered to be post-positivist (Charmaz, 2006), more recent versions adopt a more relativist and interpretivist ontology and epistemology (e.g., Corbin & Strauss, 2008, 2015; Holt et al., 2022). This viewpoint suggests that reality is multiple, subjective, and influenced by participant's interpretations of their world. Moreover, it is recognised that the researchers are an integral part of the research process and any research outputs represent a collaboration between each individual participant's views and interpretations and those of the researchers. Aligned with this, it is acknowledged that any theory produced using GTM is only one interpretation of the data. As such, the present study sought to produce a substantive theory, while acknowledging that this should be refined and changed through further study.

### 3.2. Study overview

Swimming was chosen as it is a demanding sport where athletes are

faced with a variety of challenges that have the potential to impact negatively on their mental health (Lang, 2015). At the highest levels (e.g., national and international), competitive swimming often involves intense, frequent training sessions and long seasons (Lang, 2015), that may contribute to athlete burnout and sport dropout (e.g., Gustafsson et al., 2017). The current study took place across several swimming clubs and high-performance swimming centres in the United Kingdom. High-performance swimming centres are those in which swimmers on the performance pathway complete their training, while accessing full-time coaches and additional resources such as physiotherapy, psychology, and performance lifestyle support. Typically, swimmers enter the pathway around 12 years of age and, depending on their progress, remain on the pathway throughout their swimming career. Permission to enter various swimming centres was provided by the national governing body, and institutional ethical approval was granted prior to starting the study.

### 3.3. Interview participants

Initially, participants who were deemed to be 'information-rich' were purposefully sampled (Patton, 2015). Specifically, individuals who were anticipated to be able to provide an overview of how wellbeing may be affected throughout the entire performance pathway were sought. This included recruiting experienced coaches and support staff (i.e., those who had been involved for over 10 years), and thus had interacted with numerous swimmers, and retired swimmers who had progressed through all stages of the high-performance swimming pathway (i.e., over 10 years of experience). In line with GTM, theoretical sampling was employed as the study progressed (Corbin & Strauss, 2008) and participants were recruited based on their ability to provide further information regarding concepts that had been identified in the earlier stages of data collection and analysis (see Figure 1). For example, the decision to include younger swimmers was made to better explain

the category of socialisation into a high-performance swimming environment and how it related to other categories (i.e., theoretical sampling; Corbin & Strauss, 2008).

In total, 42 participants took part in interviews: 22 swimmers, five retired swimmers, eight coaches, and seven support staff. For swimmers who were on the performance pathway ( $n = 12$ ), there was an expectation to train between 14 and 20 h a week in the pool (excluding an additional 15–30 min pre- and post-training warmup/cool down per session), as well as strength and conditioning for between one and 5 h a week. Two of the swimmers were part of the university high-performance squad and trained for 18 h per week in the pool (excluding an additional 15–30 min pre- and post-training warmup/cool down per session), as well as 2 h of strength and conditioning per week. The remaining eight swimmers were club swimmers who trained between six and 14 h per week, with some swimmers completing up to 2 h of additional strength and conditioning training. In total, all the swimmers trained for at least 6 h a week, up to a maximum of 30 h per week. See Table 1 for further participant information.

### 3.4. Data collection

Data were primarily collected via individual semi-structured interviews but supported with observational data and information from academic and lay literature. The use of multiple data collection methods is recommended for GT studies to facilitate methodological triangulation of data (e.g., Flick, 2019). It is important to note that the study began just prior to the COVID-19 pandemic and data collection was ongoing throughout the pandemic. Consequently, it was not possible to interview most participants in person or spend time observing in the field. Rather, interviews were conducted using Skype/Zoom and the first author attended numerous virtual meetings and social events with swimmers and coaches. This enabled the collection of contextual data, despite the ongoing pandemic.

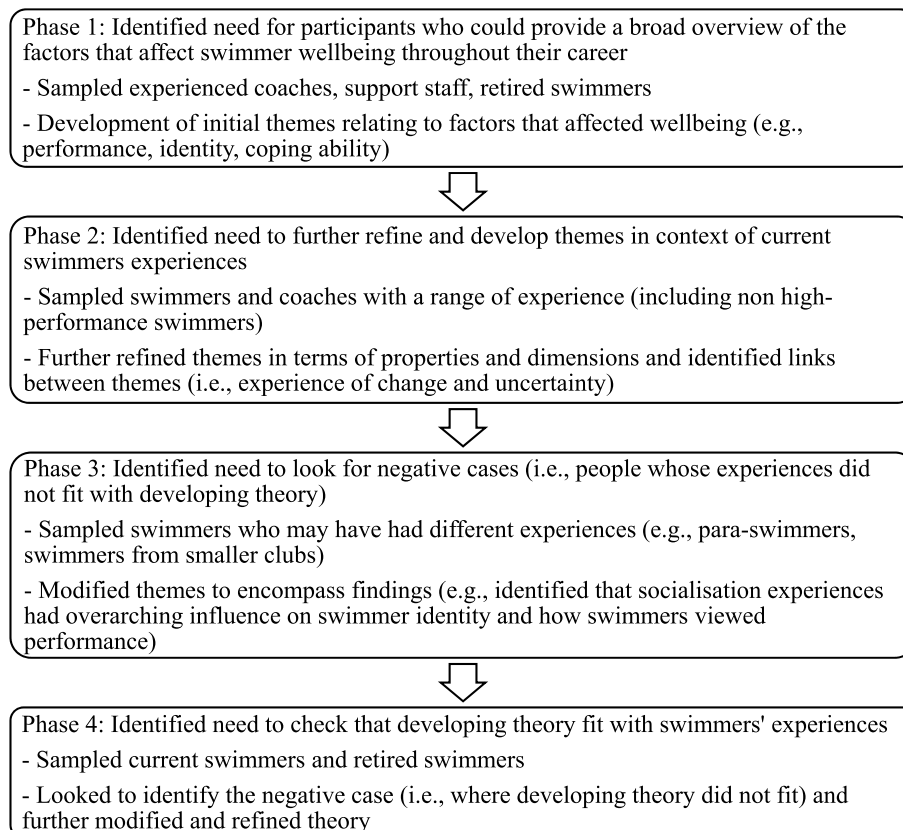


Figure 1. Overview of the theoretical sampling process.

**Table 1**  
Demographic breakdown of participants.

Participant Type	Number	Age	Gender	Swimming Experience (years)
Swimmers	22	M = 18.86 Range = 12-31	F = 12 M = 10	M = 10.32 Range = 4-20
Retired Swimmer	5	M = 27.6 Range = 26-29	F = 4 M = 1	M = 16 Range = 14-18
Full Time Coaches	8	M = 41.5 Range = 23-59	F = 1 M = 7	M = 21.25 Range = 3-38
Support Staff (Sport Scientists, psychologists, lifestyle advisors)	7	M = 35.86 Range = 25 - 41	F = 4 M = 3	M = 11.46 Range = 1.5-22

**Observations.** Prior to the recruitment of interview participants, the first author was embedded within a high-performance swimming environment where they carried out numerous observations of training sessions and team meetings, as well as informal conversations with swimmers, coaches, and practitioners. In total, around 150 h (approximately 50 h of which were face-to-face and 100 h were virtual) of observations were conducted.

**Individual Interviews.** For the semi-structured interviews, participants were approached directly or via email to ascertain their interest in participating. Recruitment emails were sent out by the first author or via a gatekeeper (i.e., coach). Interested individuals were asked to contact the first author directly to organise a suitable time and date to take part. Interviews ranged in length from 31 to 83 min ( $M = 53$ ). To facilitate the interviews, an interview guide was used. Initially, interview questions focused on the range of factors that participants perceived to affect wellbeing. Separate interview guides were developed for swimmers, retired swimmers, coaches, and practitioners. As new concepts emerged, the interview guides were revised and questions were amended, consistent with the principle of theoretical sampling (Corbin & Strauss, 2008). In total, 20 interview guides were developed over the duration of the study (copies are available from the lead author).

### 3.5. Memos and diagrams

Consistent with GTM (Corbin & Strauss, 2008; Holt et al., 2022), the first author also created memos during the data collection and analysis period. Memos and diagrams were a key component that helped to identify properties and dimensions of concepts, as well as relationships between concepts. In addition, memos served as an audit trail of thinking and decision making throughout the study. A total of 46 memos were created throughout the study, ranging from a couple of sentences to over a page in length. During the later stages of the study, memos were used as a way to speculate how different concepts might link together, by drawing on the interview data, existing literature, previous memos, as well as observational fieldnotes. These memos also served to highlight concepts and categories that were not fully formed, and therefore needed further exploration.

### 3.6. The use of literature

In contrast to traditional GT, Straussian GT does not discourage the researcher from reading the extant literature before the study, rather it is suggested that at least a basic knowledge of the existing literature is necessary to develop a strong rationale for the study (Corbin & Strauss, 2008). Further, it is acknowledged that the use of literature at appropriate points during the data collection, analysis, and theory generation process can increase theoretical sensitivity and avoid 'reinventing the

wheel' (Charmaz & Thornberg, 2021). For the present study, the first author had a broad understanding of the academic literature regarding athlete wellbeing, which led them to identify a lack of studies that have explored the process of how wellbeing is affected within a high-performance sporting context. In addition, after the first phase of data collection and analysis, extant literature and published swimmer biographies/autobiographies were used to help explore concepts that had been developed to guide the questions they asked future participants, and ensure that each concept was fully formed with regards to its properties and dimensions.

### 3.7. Data analysis

The collection and analysis of data was an iterative process (see Figure 2), with analysis starting as soon as the first data were collected to allow for future data collection to be guided by the developing findings (Corbin & Strauss, 2015).

Where transcription of the data was not possible (due to short time period between interviews), the initial analysis occurred while listening to the audio files (Holt et al., 2012) and a full analysis was conducted as soon as the transcript was produced by the lead author. Analysis occurred in three stages (Corbin & Strauss, 2015). First, open coding involved coding of the data for concepts that were relevant to the research question, as well as for characteristics and defining features of the concept (i.e., properties) and variations within each concept (i.e., dimensions). For example, codes used during early analysis included "high-performance environment," "performance valued above all else," and "sacrifices show dedication." Second, axial coding involved re-reading the data and coding for relationships between the concepts. Examples of axial codes used were "performance focus is encouraged by high-performance swimming environment" and "declining performance affects wellbeing as it challenges identity as a swimmer." Finally, once all concepts were fully developed in terms of properties and dimensions (known as "theoretical saturation"), context and process had been considered, and relationships between categories had been identified, the process of theoretical integration began (Corbin & Strauss, 2008). The inclusion of process and context is a key element of any GT study, as it ensures that concepts are grounded in the data (Corbin & Strauss, 2008, p. 229). Within the present study, the concept of "the swimming bubble" illustrates the context within which swimmers are situated. Similarly, the category 'ability to successfully manage the impact of change and uncertainty on performance and identity' refers to the process that swimmers went through when faced with periods of change and uncertainty. This was a process that appeared to be either active or passive and resulted in either positive or negative changes in wellbeing.

Various analytic tools and strategies were employed to aid with the process (see Corbin & Strauss, 2008 for a complete list of recommended tools and strategies). The main strategies used included asking questions of the data, making constant comparisons, waving the red flag (e.g., recognising absolute statements by participants as biases to explore), and the flip-flop technique (e.g., thinking about concepts from an oppositional perspective). Asking questions such as who, what, when, where, how, and with what consequence, enabled the identification of key properties and dimensions of the developing concepts, while constant comparison (i.e., comparing incident with incident) (Glaser & Strauss, 1967) allowed for the discovery of patterns and variation within those concepts. Finally, feedback was also sought from participants throughout its development and used to help shape and modify the developing theory.

### 3.8. Methodological rigour

Aligned with recommendations of Sparkes and Smith (2009) that qualitative studies should be judged alongside the appropriate approaches for a specific methodology, in the current study, quality was judged against the criteria proposed by Holt and Tamminen (2010b)



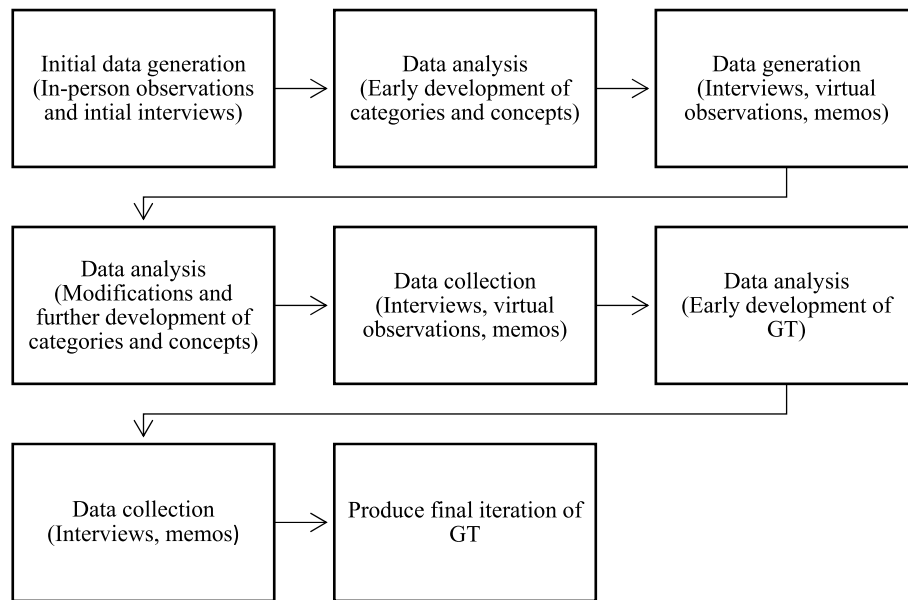


Figure 2. Iterative process of data collection and analysis.

that infer the quality of a GT study using the concept of ‘methodological coherence.’ First, Holt and Tamminen (2010b) suggest that the epistemological and ontological underpinnings and that the research question should match the variant of GT that is used. For the present study, the philosophical underpinnings and choice of research question influenced the selection of Straussian GT as an appropriate methodology. Moreover, once the choice had been made, all subsequent research decisions aligned with this approach.

Second, the guidance addresses the issues of participant sampling and sample size. Within the present study, theoretical sampling involved purposively sampling participants who were able to provide insights into the developing concepts. Third, methodological coherence should also be apparent throughout the planning and execution of data collection and analysis. The present study was designed as an iterative process, with data collection and analysis occurring concurrently throughout the study duration. Moreover, during the data analysis process, several

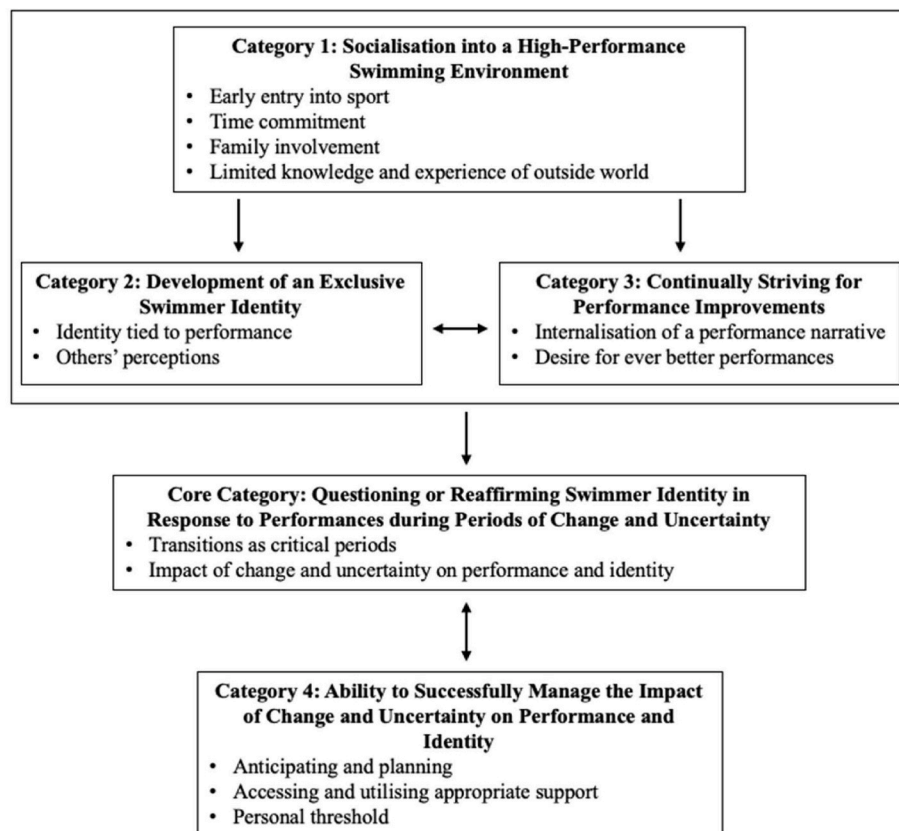


Figure 3. A Grounded Theory of the Process through which Participation in High-Performance Swimming Affects Athlete Wellbeing.

methods were utilised that are congruent with a GT methodology (i.e., memos, diagrams, constant comparison).

Finally, Holt and Tamminen (2010b) note that a key component of any GT methodology is *theory generation*, and it has been suggested that the generation of theory should be the aim of any GT study (e.g., Corbin & Strauss, 2008). As such, the results of this study are presented as a set of related categories. Taken together, the categories and their relationships with each other provide a substantive theory of the process through which participation in high-performance swimming affects athlete wellbeing.

#### 4. Results

In the following sections a summary of the overall theory is first provided, followed by detailed explanations of each of the categories and related concepts.

##### 4.1. The process through which changes in swimmers' wellbeing occurs

The proposed theory (see Figure 3) suggests that swimmers are socialised into a high-performance swimming environment (category 1) from a young age. Through this socialisation process, they learn that swimming requires a substantial time commitment. As a result, they believe that, if they want to become elite swimmers, swimming needs to be a central focus in their life. In buying into these norms, swimmers develop a very strong, and oftentimes exclusive, swimmer identity (category 2). While they are developing their identity swimmers spent lots of time in competitive environments where they continually seek to demonstrate improvements in their performance (category 3). As swimmers develop their identity alongside this performance-focused environment, these two elements become related; swimmers' perception of their alignment with their identity is influenced by their performance (both positively and negatively). The precise ways in which individuals experience the socialisation process, identity formation, and performance emphasis varies (i.e., the categories are dimensional) but nevertheless, the experience of, and interactions between, these three categories influence their vulnerability to changes in wellbeing.

Specifically, against this backdrop, changes in swimmer wellbeing are most likely to occur in situations which impact on their performance and by association their identity. Particularly, transitions are critical points when wellbeing might be affected due to the potential for the change and uncertainty associated with transitions to affect swimmers' performance and their identity (core category). Specifically, changes in performance during these times lead swimmers to either question their identity as a swimmer and subsequently experience declines in wellbeing, or reaffirmed their identity as a swimmer, leading to enhanced wellbeing. However, the potential decline of wellbeing during transitions can be mitigated if swimmers are able to effectively cope with the impact of change or uncertainty on their performance and identity (category 4). In particular, if swimmers are able to anticipate and prepare for the change and uncertainty, as well as access and use appropriate support at this time, then the negative consequences for their wellbeing are reduced.

Overall, the theory reflects a dynamic process of change in wellbeing, with each critical moment introducing an opportunity for swimmers to experience performance changes and associated shifts in their identity or to develop and test out new strategies to cope. Each exposure subsequently influences how individuals will respond to future critical moments and thus experience changes in wellbeing.

##### 4.2. Category 1: socialisation into a high-performance swimming environment

Swimmers who took part in the study had been involved in swimming from a young age. Swimmer 8 mentioned they had, "literally always been swimming" and Swimmer 19 noted, "I haven't really known a

time where I haven't swum." As a result, swimmers felt they had, "grown up in swimming." In addition, the amount of training required meant that swimmers had limited opportunities for experiences outside of swimming, a point that was noted in frequent observations and summarised by Swimmer 21, "[be]cause of like the time restraints with the hours of training, you miss out on things." Swimmer 5 explained, "it's like if ever [friends] are like 'oh do you want to come and do this?', [I'm] like 'no I'm swimming' like, 'oh what about this?', like 'no I'm swimming' ... I can't do any of that stuff."

Several swimmers also had parent(s) and/or siblings that had previously been, or currently were, involved in swimming. Swimmer 15 explained that swimming was something the whole family was involved in, "my mum coaches in swimming ... she coaches my sister ... and then my dad officiates." Consequently, it was perceived that many swimmers had little knowledge of the world outside of swimming. As Support Staff 5 highlighted, "a lot of them, I think, don't really know that much about the outside world apart from swimming." Indeed, participants often referred to "the swimming bubble," which Coach 4 described:

We live in a bubble, you know, we live in that elite sport bubble where, the things that we take as you know, these are essential, they don't even come onto the radar of a normal human being ... we talk about you know, marginal gains and all this stuff and tweaking your position a little bit ... we just do live in a confined fenced off little community that other people will never get to experience or ever understand.

As a result of the amount time spent in a high-performance swimming environment coupled with a lack of engagement with the outside world, swimmers became socialised into a high-performance swimming environment and learnt to think, feel, and behave in ways that were encouraged within this context. Retired Swimmer 2 explained they learnt to modify their behaviours to, "fit into the mould of what their perfect swimmer needed to be [because] if you didn't fit that, you were pushed aside." Specifically, the high-performance swimming environment was perceived to promote a focus on performance above all else, as Support Staff 5 stated, "it's so performance driven." Retired Swimmer 2 also recalled, "it [the environment] was all about performance." This focus on performance often meant swimmers were expected not to engage in any activities that might affect their ability to train – leading to further restrictions in their engagement with the anything outside the swimming bubble.

##### 4.3. Category 2: development of an exclusive swimmer identity

As a result of starting swimming at a young age combined with their limited engagement in activities outside of swimming, many swimmers felt they had developed an exclusive swimmer identity – that is they saw themselves and their worth as being solely related to swimming. For example, Swimmer 14 emphasized that swimming, "[is] an inseparable sort of thing from my character" and Retired Swimmer 1 recalled, "identity-wise, [I] always wanted to swim, always wanted to be an Olympic athlete, always wanted to actually have that future career in swimming."

Further, it appeared that swimmers' identity was closely tied to their performances in the pool. Specifically, participants explained that "when they were young they used to win a lot and that resulted in them being known as a swimmer" (*informal conversations during observations*). These early experiences fostered the belief that "being a swimmer" and "performing well" were one and the same - if you want to be a swimmer you must perform well and if you perform well, you are a swimmer. This link was reinforced within the high-performance swimming environment, as swimmers found they were treated differently depending on how they had performed. For instance, in reference to wellbeing, Retired Swimmer 2 explained, "if you're performing well, your wellbeing is their [the coaches'] number one priority and then, if you're not performing well, it's not."

Not only did those within the swimming environment influence the development of an exclusive swimmer identity, participants explained that it was also reinforced by those outside swimming. Swimmers recounted how other people would simply refer to them as “the swimmer.” Swimmer 13 explained, “I’m always known as the swimmer, the [person] that swims, and I think I’m pretty sure most of the people at my, at my school will remember me as the swimmer, not anything else.” For some, this perception was frustrating, as Swimmer 2 explained, “I’d say that bothers me because I think to myself, I’m so much more than just a swimmer.” Nevertheless, all indicated they were, first and foremost, a swimmer.

#### 4.4. Category 3: continually striving for performance improvements

The combination of being in an environment that focused on performance above all else and having a swimmer identity that was closely tied to their performances in the pool meant that swimmers had internalised a perception that performance was everything. Consequently, they were constantly seeking ever-better performances, to the exclusion of everything else in their lives. Retired Swimmer 1 remembered, “the importance of performing well in swimming outweighed everything, shamefully.” Similarly, Swimmer 7 noted that, “Uni work will take a massive back seat ... It shouldn’t be like that but in my head, my swimming is coming first.” Retired Swimmer 2 summarised the feelings of many, “all my life, [it] has never been swimming that has had to give, it’s always been my priority.”

Participants’ perceptions of what they were seeking in their performances, particularly to judge them as good, varied. For some, they judged the quality of their performance in relation to beating others and winning. Reflecting this, Swimmer 2 stated, “obviously I swim to win.” Meanwhile, Swimmer 7 explained:

I would always want to win because I don’t want to come second because that’s still losing ... I don’t like anyone being better than me at anything ... I really couldn’t care less about medals or winning things or anything like that, even prize money, it doesn’t bother me at all, I just don’t want anyone to be better than me.

For others, a good performance was related to personal development and becoming better than they were before. Swimmer 14 shared, “for me, a good performance would be a performance that I can say reflects my work ... like, your performance reflects your training.”

However, no matter how well swimmers judged their performance – in relation to their own personal best times or compared to others – they always felt they could do better. For instance, speaking about how they felt when they achieved a new personal best, Swimmer 16 noted, “I think, yeah, I’ve done it, but could I have done better? Like, what if I take my PB, and gone faster again?” Similarly, Swimmer 17 indicated that, if they achieved a personal best, they would, “be happy for about a week and then I would set myself another goal or find out if there’s another competition.” Indeed, it was clear that for some, their desire to keep performing better led to them feeling “not good enough” even when they had achieved life-long goals. As Retired Swimmer 3 recalled:

When I was young I was like “oh if I ever get to the Olympics, that will be amazing” and then you make it and after that it’s like you’re not good enough, you want to get a medal ... looking back, the fact that I actually went anyway, twice, is amazing but, you lose sight of that.

This inability to appreciate their accomplishments seemed to be detrimental for their wellbeing. Swimmer 6 noted how continually striving to achieve better performances had negatively affected how they felt about competitions, “[I] don’t like racing, because it got to the point where like, even when I swam well and PB’d, I still felt like I should be doing better.”

#### 4.5. Core Category: questioning or reaffirming swimmer identity in response to performances during periods of change and uncertainty

Due to swimmers continually striving for ever better performances, it was apparent their wellbeing was most affected in situations where performance was impacted. For example, talking specifically about one swimmer who had a strong swimmer identity, Coach 3 explained, “it certainly affects his wellbeing when he doesn’t train well, his mood changes quite drastically” because the swimmer felt that their identity was being threatened. Retired Swimmer 1 noted how a plateau in performance led to them, “questioning if I was good enough to actually make the transition to an elite level, to an Olympic level and [I] really struggled with confidence issues.” Declines in performance were seen to negatively impact on identity and consequently wellbeing as highlighted by Swimmer 22, who explained, “when you have like [a] few months of bad swims, you sort of do sort of think about, um, whether you would identify as a swimmer or not. And it is quite a difficult time.” Similarly, Retired Swimmer 2 stated, “you start to doubt yourself.”

Conversely, wellbeing was positively influenced when swimmers performed well, because it positively reflected how they thought of themselves and reaffirmed their identity. Swimmer 11 remembered, “I got a gold medal in I think it was 100 back or something ... I felt really good about myself then. I felt like ‘oh yeah, I did really well’ and I felt everything was going really good.” Improved performances re-affirmed participants’ swimmer identity and consequently enhanced identity. Swimmer 1 recalled how their wellbeing was positively affected by an unexpectedly good performance. They described:

I went from 24 to like 7 [in the country] so people were like, she was in heat number 1, now she’s in the final ... I remember I got recognised to go on this [swim camp] and then I got into [performance centre] from those swims I did.

In seeking to understand in which situations performance (and consequently perception of identity and wellbeing) might be impacted, participants typically described experiences involving normative (e.g., junior to senior transition, retirement, starting university), non-normative (e.g., adapting to a new coach, change in funding), and non-event types of transitions (e.g., not being selected for a squad, cancelled competitions due to Covid-19) that occurred inside and outside the swimming environment. Retired Swimmer 3 recalled how their wellbeing was negatively affected when they retired from the sport. They noted, “I was all over the place.” Similarly, Swimmer 8 described the negative affect a new coach had on their wellbeing, saying, “[Coach] retired and a new coach came in. She wasn’t great ... I just had a terrible year ... It was depressing.” Conversely, Swimmer 5 felt the transition to a new club had a positive impact on their wellbeing, due to the increased support they received:

Actually, having a support network from the swimming [has had the biggest impact on wellbeing], because I had nothing at [old club], like if ever I had a problem and went to the coaches about it, nothing happened ... there was just no support anything ... like here, if ever I’ve got any problems, they get sorted and I get help.

Although the specific experiences participants spoke about varied, they all shared certain characteristics, namely, they all involved change and/or uncertainty. Indeed, uncertainty was a pertinent factor for one swimmer when speaking about the effect of the COVID-19 pandemic on their wellbeing, “it’s quite stressful because we don’t know what’s going to happen yet. Cause like it’s not certain ... they’ve given us like what they think could happen, but it’s not like exactly what is going to happen” (Swimmer 15). Similarly, Coach 1 reflected that many swimmers they coached struggled with the transition to the university high-performance squad as they were often uncertain about what was expected of them; “those first two, three weeks, most swimmers have some form of meltdown” (Coach 1).

#### 4.6. Category 4: Ability to Successfully Manage the Impact of Change and Uncertainty on Performance and Identity

Despite the potential for situations characterised by change and uncertainty to affect wellbeing, it did not occur in every situation. Rather, whether wellbeing was affected, and in which direction (i.e., positively or negatively), depended on a swimmer's ability to successfully manage the impact of said change and uncertainty. Illustrating this point, Coach 2 stated, "all life has uncertainty and stress, it's just about how you deal with it and how you manage it." In terms of being able to successfully manage the impact of change and uncertainty one important factor appeared to be the swimmers' ability to anticipate and prepare for the change. For example, Swimmer 1 explained how anticipating change can help mitigate the impact on wellbeing. They said, "I already know that when I go to a new club, you start with new training, new coaches, new facilities and stuff, you're never going to go forwards straight away." Planning was seen as a key strategy to utilise in this regard. Talking about this, Swimmer 22 explained:

I plan my entire year out, in a book, month by month. So I sort of predict what I think will happen over the months ... And, um, sort of make a plan as it goes along, it might change, but the outline of everything will still be the same ... It's really useful.

As a result, Swimmer 22 recalled how their wellbeing was positively affected, "I was struggling with anxiety. I didn't feel like I had a grip on anything. And then when I started to do this [planning], I started to get sort of a hold on things again."

In addition, planning also helped swimmers to be able to communicate with those around them. As Support Staff 4 highlighted, "[planning is] quite a practical tool for them but it's that tool that enables them to go and have a conversation ... and have something that they can refer to when they're trying to have that conversation." Such conversations were important because they helped swimmers to access social support, another important strategy to manage uncertainty. Such support could come from peers within swimming or coaches, but also from outside swimming. For example, Swimmer 11 highlighted how family support was helpful when they had not performed as well as they had hoped, mentioning, "my gran ... she's always there for me ... she will just be there and be like yeah, you did really well. Don't worry about it. We'll do even better next time and she'll like believe in me." In addition, Retired Swimmer 2 recalled how support from their school helped, noting, "I did get a lot of support from school which I'm lucky to have ... they were really, really helpful ...."

Additionally, when considering what influenced swimmers' ability to manage change successfully, participants indicated individual variation regarding the amount of change and uncertainty swimmers were able to manage at any time. Coach 4 emphasized this:

Everyone, if you like, has probably got a threshold, you know, if there's one thing gone on, we can deal with it, we can carry on as normal but for some people two things going on that's too much and they start to break, for other people it may be six.

Age and experience were highlighted as key factors that influenced individual capacity for change. For example, Coach 1 highlighted how younger swimmers often found it harder to manage, due to their (lack of) psychological development; "it's really hard for them to understand, so they get upset then, so you're managing that emotional reaction then, because you get an emotional reaction off them rather than a sit down, logical reaction." Further, Coach 4 felt those who had experienced difficulties in their life previously had a higher threshold than those who had not. They explained, "Some of the guys have had to go through stuff and adversity in their lives, others haven't you know, some of them have had a silver spoon ... maybe that influences where the threshold is."

## 5. Discussion

The purpose of the current study was to examine how change in high-performance swimmers' wellbeing occurs. The specific research questions were: (1) How is the dynamic and multidimensional process of wellbeing experienced by swimmers? (2) What are parents, coaches, and support staff perspectives regarding wellbeing within the context of high-performance swimming? and (3) What are the key personal, environmental, and sociocultural factors underpinning change in high-performance swimmers' wellbeing? And in what way are these factors influencing such change? In achieving this purpose, a substantive GT was developed, which draws together a range of different concepts to illustrate the interactions between individual, social, and environmental factors that contribute to changes in swimmer's wellbeing. The proposed theory illustrates the substantial and sustained influence the culture within high-performance swimming has on identity formation and highlights how the dominance of a performance above everything mindset can lead to an excessive focus on improvement, which influences the development and maintenance of a swimmer identity. The combined influence of these factors was one in which swimmer's became vulnerable to experiencing changes in their wellbeing at critical moments. That is, against this backdrop, the theory suggests that swimmer wellbeing is most affected during periods of change and uncertainty, due to the potential for these periods to impact on swimmers' performance and subsequently identity. However, the potential negative effects of transitions on wellbeing can be mitigated if a swimmer is able to effectively manage (through planning and social support) the impact of change and uncertainty on performance and identity support in this process.

Many of the elements of the proposed theory have previously been linked to athlete wellbeing within the extant sport psychology literature. For example, supportive environments (e.g., Küttel et al., 2021), access to social support (e.g., Coyle et al., 2017), and the use of effective coping strategies (e.g., Pankow et al., 2021) have been positively linked to athlete wellbeing. Interestingly, a recent process map proposed that athlete growth is central to promoting wellbeing (Pankow et al., 2023). This initially appears similar to the current finding of swimmers desiring ever better performances. However, a key difference between the proposed grounded theory and Pankow et al.'s (2023) process map is that in the current study, swimmers who discussed declines with wellbeing during periods of change often reflected that they were not satisfied with reaching their performance goals, whereas in Pankow et al.'s study participants indicated that appreciating their growth was a key part of promoting wellbeing. It is therefore important to consider that it may be the recognition of improvement, rather than the improvement itself, that affects wellbeing.

The proposed grounded theory indicates that transitions represent critical periods where swimmer wellbeing is likely to be affected. Given that transitions are defined by change (Anderson et al., 2011) and often characterised by uncertainty (Stambulova, 2009), it is unsurprising that swimmer wellbeing was perceived as most likely to be affected during transitions. Indeed, previous studies have extensively documented the impact of various transitions on athlete wellbeing, including the junior-to-senior transition (e.g., Drew et al., 2019; Stambulova, 2017), returning from a major game such as the Olympics (e.g., Bennie et al., 2021; Howells & Lucassen, 2018), and retiring from sport (e.g., Cosh et al., 2021; Jewett et al., 2019). In fact, the transition environment success factors working model proposed by Henriksen et al. (2023) posits that there is a reciprocal relationship between athlete wellbeing, culture during transitions, and transition demands and effectiveness as athletes navigate transitions that is preceded by a set of environmental preconditions. In the current study, it was found that there are socio-cultural factors that influence individual preconditions for transition (i.e., socialisation to the high-performance environment influenced athletic identity and performance narratives), that are not captured by Henriksen et al.'s working model. As such, our work highlights the



importance of exploring how such sociocultural and individual factors preceding transitions might influence wellbeing.

Within the extant literature, findings from previous studies that have explored the association between athletic identity and wellbeing are inconsistent. Some studies suggest that a stronger athletic identity is positively associated with several psychological outcomes that are linked to wellbeing, including increased self-esteem (Stephan & Brewer, 2007), motivation to train (Van Raalte et al., 1992), and sport satisfaction (Burns et al., 2012). However, others indicate that higher levels of exclusivity and identity foreclosure (i.e., where one identity is prioritised to the exclusion of all others) are linked to poorer mental health outcomes at certain times, such as during retirement (e.g., Haslam et al., 2021) and periods of injury (e.g., Renton et al., 2021). Considering the current findings, it may be that having an exclusive athletic identity is not necessarily an issue for wellbeing per se, rather the problem occurs when an athlete develops an identity solely tied to performance outcomes and that athlete is unable to perform in a way that is satisfactory to them. In this situation, their identity becomes threatened which, in turn, negatively affects wellbeing.

Linked to the performance-related identity development discussed above, the findings of the present study highlight the important role that sport culture has in facilitating and maintaining the development of an athletic identity closely tied to performance outcomes. It was clear that, in this case, the culture of high-performance swimming was largely centred around the *performance narrative*, a story of determined and unwavering dedication to sport performance to the exclusion of all other areas of life and self (e.g., Douglas & Carless, 2006). Research suggests that the performance narrative is dominant across elite sport (e.g., Douglas & Carless, 2006) and common within youth sport (e.g., Haraldsen et al., 2021; Ronkainen & Ryba, 2020). Despite its dominance, the performance narrative is not the only narrative available to athletes. Indeed, previous studies have highlighted that success in elite sport is possible for athletes who reject the performance narrative (Douglas & Carless, 2006). Given the negative consequences associated with the performance narrative, these alternative narratives and approaches to elite sport are appealing. However, it is important to note that a lack of alignment between the individual athlete's narrative and the dominant narrative promoted by the sport can increase the risk of an athlete experiencing identity challenges and poor mental health (Haraldsen et al., 2021) – thus the emphasis must be on culture change not simply an expectation that athletes can consider their identity differently.

### 5.1. Applied implications

Given the influence of early sporting experiences on identity development, sports organisations should be mindful of the culture they promote within their sports. Importantly, those involved in designing and delivering developmental pathways should seek to foster an environment that is not dominated by a performance narrative, instead ensuring that alternative narratives are promoted. This can be achieved by encouraging those who work with athletes (e.g., coaches, support staff) to change how they talk about sport so that it is less focused solely on performance outcomes, instead focusing on enjoyment and personal growth alongside performance, and actively encouraging the pursuit of interests outside of sport. Such intervention would likely be necessary at the beginning of a swimmer's career (i.e., during the socialisation stage), which supports Stambulova et al.'s (2021) call for career-long sport psychology support to aid with athlete career development and transitions.

Coaches, practitioners, and those working with high-performance athletes should be aware of the potential impact that transitions can have on athlete wellbeing and endeavour to support transitioning athletes to anticipate and prepare for these where possible. Following Stambulova et al.'s (2021) recommendations, we support the notion that workshops where athletes are educated around the different types of transitions and encouraged to think about, and plan for some of the

transitions that they might face during their career may help to lessen some of the uncertainty surrounding many transitions in combination with culture change and the promotion of alternative narratives. However, there is a need to recognise that addressing transitions alone will be insufficient – as the grounded theory demonstrates it is the interconnection across the categories that has the influence on wellbeing. Thus, transitions workshops in combination with reviews of sporting culture and delivery of programs of work to upskill athletes regarding coping with uncertainty will be required as a minimum.

Finally, the current findings have implications for anyone developing interventions that target the wellbeing of high-performance athletes. So far, most interventions targeting athlete wellbeing or mental illness have focused on improving mental health literacy and awareness (e.g., Breslin et al., 2018; Vella et al., 2018). Although increasing awareness and knowledge surrounding mental health is an important and worthwhile pursuit, the present study suggest that interventions should also seek to increase coping ability, as athletes who are better able to cope during transitions can mitigate the negative effects of transitions on wellbeing. Additionally, and critically, future interventions should also aim to intervene at the cultural level, to reduce the likelihood of athletes developing an exclusive athletic identity tied to performance.

### 5.2. Limitations and future research directions

The findings should be considered within their limitations. First, it should be noted that the proposed GT is a substantive theory (Corbin & Strauss, 2015), meaning that it is specific to the context in which the data were collected. As such, some elements of the theory may not be relevant to other contexts. Future research might benefit from using the findings of this study as a starting point to explore the similarities, and nuances, of different environments, both inside and outside of swimming and across other high-performance sports. Further, Nathaniel (2020) suggests that grounded theories should be delimited to include only categories and concepts that are directly related to the core category. Therefore, it is important to be aware that, with regards to the present study, there may have been other factors that impacted swimmer wellbeing that were not covered by the proposed theory. Further, triangulation of data from different sources (e.g., interviews, observations) is recommended within GT studies to provide a broader understanding of the phenomenon being studied (e.g., Flick, 2019). Although we were able to include 150 h of in-person and virtual observational data in the study, COVID-19 lockdowns limited the opportunity for repeat interviews with participants at different time points or competitive periods, thus limiting our ability to fully triangulate all relevant interview and observational data.

## 6. Conclusion

The present study explored the impact of high-performance swimming on athlete wellbeing. Taken together, the findings of the present study provide context and a deeper understanding of the processes that underpin how high-performance swimmer wellbeing is affected. In particular, the findings indicate that this process is highly contextualised and illuminates the substantial and sustained influence of culture on identity formation. Specifically, the proposed GT illustrates how the dominance of a performance narrative can influence the development and maintenance of an exclusive swimmer identity that is tied to performance and threatened when performance goals are not achieved. Subsequently, the theory suggests that transitions represent critical periods where wellbeing is likely to be affected, due to the increased potential for change and uncertainty to impact on performance (and therefore identity). During these periods, the use of key strategies, such as anticipating and planning, as well as accessing and utilising appropriate support can help to minimise the impact of change and uncertainty on performance and identity. However, to effect the greatest change, there is a need for a cultural shift away from the performance

narrative towards more sustainable narrative that sees fluctuations in performance as a normal part of what it means to be an elite athlete.

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## Declaration of competing interest

The authors confirm that there are no declarations of interest.

## Data availability

The data that has been used is confidential.

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