Routledge
Taylor & Francis Group

Journal of Applied Sport Psychology

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/uasp20

Support for athletes with eating psychopathology symptoms: Exploring the views of athletes, coaches and sport practitioners

Sebastian S. Sandgren, Emma Haycraft, Rhona Pearce & Carolyn R. Plateau

To cite this article: Sebastian S. Sandgren, Emma Haycraft, Rhona Pearce & Carolyn R. Plateau (2022): Support for athletes with eating psychopathology symptoms: Exploring the views of athletes, coaches and sport practitioners, Journal of Applied Sport Psychology, DOI: 10.1080/10413200.2022.2032476

To link to this article: https://doi.org/10.1080/10413200.2022.2032476

Published online: 01 Mar 2022.

JOURNAL OF APPLIED SPORT PSYCHOLOGY
https://doi.org/10.1080/10413200.2022.2032476

Support for athletes with eating psychopathology symptoms: Exploring the views of athletes, coaches and sport practitioners

Sebastian S. Sandgren[a,b], Emma Haycraft[a], Rhona Pearce[a], and Carolyn R. Plateau[a]

[a]Loughborough University; [b]University of Stavanger

ABSTRACT

Eating psychopathology is prevalent among athletes yet little is known about how to effectively support athletes with eating difficulties. This study aimed to understand athletes' and sport professionals' experiences of, and perspectives toward, supporting athletes with eating psychopathology. Forty-five participants took part in the study and data were collected using two methods: (a) individual interviews were held with athletes with current or previous eating psychopathology symptoms ($n = 13$); and (b) six focus groups were conducted: two with athletes with no history of eating psychopathology ($n = 13$), two with coaches ($n = 7$), and two with sport practitioners ($n = 12$). The data were analyzed using thematic analysis and two overarching themes were identified. Theme 1 (*Tensions around addressing eating psychopathology in athletes*) highlighted challenges with communication, conflicting perceptions around the responsibility of addressing and intervening with athlete eating concerns, and difficulties with obtaining relevant and timely support for athletes. Theme 2 (*Considerations for developing practical tools to support athletes with eating psychopathology*) highlighted a desire for future resources to consider confidentiality, to preserve athletes' identities and facilitate independence where the athlete is in control of the degree and pace of engagement. In conclusion, tensions exist between athletes and sport professionals which make addressing eating psychopathology in athletes difficult. There is a need to develop accessible, confidential and tailored practical support resources which athletes can engage with independently to support them in the early stages of an eating problem.

Lay Summary: There is a need to understand how athletes with eating problems can be more effectively supported. Athletes, coaches and sport practitioners shared their thoughts around supporting athletes with an eating problem. Findings highlight the need to develop accessible, confidential and tailored athlete support resources.

ARTICLE HISTORY

Received 15 February 2021
Revised 20 December 2021
Accepted 10 January 2022

IMPLICATIONS FOR PRACTICE

- Tensions exist among athletes and sport professionals in relation to communication around eating attitudes and behaviors, responsibility for addressing eating concerns, and obtaining

CONTACT Carolyn R. Plateau C.R.Plateau@lboro.ac.uk School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough LE11 3TU, UK.

relevant and timely support for eating problems which make addressing eating psychopathology in athletes difficult.
- Both sport professionals and athletes would benefit from education and training around the connotation and consequences of eating psychopathology which could be delivered by individuals with valuable knowledge of both eating psychopathology and the sport context.
- There is a need to develop accessible, confidential and tailored early intervention resources which athletes can access with ease and engage with independently in the early stages of an eating problem (e.g., self-led interventions).

Symptoms of eating psychopathology, encompassing subclinical disordered eating (e.g., occasional food restriction, bingeing and purging) and clinical eating disorders (e.g., bulimia nervosa), are prevalent among athletes (Bratland-Sanda & Sundgot-Borgen, 2013; Joy et al., 2016). If eating psychopathology symptoms are ignored or left untreated, they can result in serious health and performance consequences for athletes (Mountjoy et al., 2014) and potentially result in the development of clinical eating disorders (Sundgot-Borgen & Torstveit, 2004). For this reason, offering early intervention and support for athletes with eating problems is an important priority. Sport professionals, including coaches and sport practitioners (e.g., sport nutritionists, sport psychologists), can play an important role in identifying and signposting athletes with symptoms of eating psychopathology toward sources of support (Joy et al., 2016). However, the literature has highlighted some challenges that sport professionals face in doing this.

For example, coaches report lacking knowledge around how to identify and support athletes with eating concerns (Plateau et al., 2015). Barriers such as athlete secrecy and difficulties in communicating with athletes further obscure coaches' abilities to identify symptoms and subsequently offer support to athletes with disordered eating (e.g., Nowicka et al., 2013; Plateau et al., 2014). Coaches further report a lack of awareness around when and where to refer athletes with concerns (e.g., Plateau et al., 2015). Notwithstanding the challenges that coaches face in assisting athletes with disordered eating, signposting these athletes toward support and intervention as early as possible is crucial for preventing the worsening of symptoms (Mountjoy et al., 2014). Insight into the experiences of sport practitioners in identifying and helping athletes with eating problems is currently limited. For example, although athletes with a potential eating problem have been recommended to see a sport nutritionist for a nutritional assessment (e.g., Sundgot-Borgen & Torstveit, 2010), there is limited evidence for the effectiveness of this approach (e.g., are sport nutritionists appropriately trained and confident enough to confront athletes? Are sport nutritionists aware of any available sources of support on offer for athletes?). As such, understanding how coaches *and* sport practitioners can be equipped to support athletes with eating concerns is important for facilitating the timely signposting of athletes toward appropriate resources and support (e.g., Biggin et al., 2017; Byrne, 2019; Hines et al., 2019).

The literature has further highlighted some challenges that athletes face in disclosing their eating concerns and in relation to the support options available. Some athletes struggle to disclose their eating issues due to feelings of shame and stigma (Papathomas

& Lavallee, 2010). They also report feeling uncertain around the treatment options available and that their disordered eating experiences are not fully understood by coaches, therapists or practitioners (Sherman & Thompson, 2001). Athletes with a clinical eating disorder have reported feeling that they need a tailored and more individualized treatment program (e.g., with an emphasis on performance; Plateau et al., 2017). Additionally, many athletes will experience pressure to modify their weight and shape as a result of the cultural, sport-specific standards or body ideals believed to optimize performance (e.g., making and maintaining a low weight in sports that particularly value or emphasize leanness), which in turn may contribute to the development of eating psychopathology symptoms (e.g., Bratland-Sanda & Sundgot-Borgen, 2013). Taken together, this highlights the importance of, and the need for, athlete-specific interventions to prevent and address eating psychopathology.

However, only a small number of athlete-specific eating psychopathology interventions have been developed and the efficacy of these is equivocal. Narrative reviews report some insights into the effect of these programs, such as reducing athletes' future intentions to engage in unhealthy eating behaviors (Coelho et al., 2014), and there is some evidence that interventions can help prevent eating psychopathology symptoms from worsening (Bar et al., 2016). A recent systematic review of eating psychopathology interventions delivered to athletes (Sandgren et al., 2020) found that fewer than half of studies reported sustained reductions in eating psychopathology for athletes, while two studies reported an *increase* in eating psychopathology symptoms following the interventions. Furthermore, very few studies reported any participant feedback on the intervention, and there was a lack of understanding of athletes' experiences of intervention delivery and format. Of the 17 studies reviewed by Sandgren et al. (2020), only three adopted a participatory approach (i.e., focus groups or survey methods) with athletes and stakeholders (e.g., coaches) to help inform and shape the interventions prior to delivery (Buchholz et al., 2008; Doyle-Lucas & Davy, 2011; Piran, 1999). Additionally, it was recently reported that there is a lack of research that effectively engages with the target group and stakeholders to help guide the most appropriate support options or interventions for athletes with eating psychopathology (e.g., Stranberg et al., 2020). These limitations suggest a need for greater engagement with athletes and sport professionals prior to developing and rolling out interventions. This has been recognized as an important step toward delivering effective and acceptable interventions which focus on the needs and views of the target population and key stakeholders (e.g., Harris et al., 2016; Moore et al., 2015).

In summary, from the existing literature, there are two notable gaps regarding (1) coaches' *and* sport practitioners' experiences and perspectives around offering support to athletes with symptoms of eating psychopathology, and (2) athletes' experiences of, and perspectives toward, receiving and engaging with support to address eating psychopathology. These gaps pose a significant threat to the acceptability and efficacy of existing and future interventions. Although recent studies have highlighted a need for more athlete-specific programs (e.g., Arthur-Cameselle & Quatromoni, 2014; Hines et al., 2019), researchers are yet to explore athletes' and sport professionals' views on the format and delivery of these. Qualitative approaches can assist by obtaining in-depth knowledge and understanding of complex research needs (e.g., de Bruin, 2017). Therefore, this study adopted a qualitative approach with the aim of understanding

athletes' and sport professionals' experiences of, and perspectives toward, supporting athletes with eating psychopathology. Obtaining the views of athletes with current eating psychopathology is critical, but it is equally important to explore the views of the wider sport community that interact with them regularly (e.g., athletes with either previous or no history of eating psychopathology symptoms, coaches and sport practitioners). These groups may have valuable insights into the best ways to support those at risk (e.g., Kerr et al., 2006; Kroshus et al., 2014; Scott et al., 2019), and so were recruited alongside athletes with personal experiences of eating psychopathology for the current study.

Method

Ontological and epistemological position

The present research adopted a critical realist standpoint (Bhaskar, 1979, 1989) to help with determining and justifying the chosen methods, data analysis and interpretation of the findings. The aim of critical realist research is to produce explanations about the essences of phenomena and mechanisms (Vincent & O'Mahoney, 2018). The core tenets of critical realism are the attempt to understand the reality and it posits that the world is 'open' (not closed systems like in most experimental research) and further stratified into different levels (e.g., the empirical, actual and the real; Bhaskar, 1979, 1989; Wiltshire, 2018). The empirical is what we perceive to be the case, the actual is what is actually the case, and the real is constituted of the structures that explain events. Together, these levels offer researchers an underpinning structure by which to arrive at, and explain, the best approximations of reality of a phenomenon through participants' accounts and the empirical evidence that supports/contradicts them (e.g., Vincent & O'Mahoney, 2018). This means that critical realism provides an appropriate platform through which we can explore what is unexplored around athlete eating psychopathology (e.g., athlete support needs for disordered eating), and this is because the standpoint is not rooted in 'law-like forms' (Archer et al., 2016; Wiltshire, 2018). For instance, critical realism does not assume that the causes of eating psychopathology are like natural laws. Critical realism therefore underpinned the design and execution of the current study, and was specifically used to obtain, explain, interpret and report insights on the reality from athletes, coaches and sport practitioners around their experiences and perspectives of eating psychopathology support (through their accounts), and to further locate these experiences and perspectives within the broader management of eating problems in athletes, such as resource or intervention development needs (e.g., Bhaskar, 1989; O'Mahoney & Marks, 2014). In addition, critical realism insinuates a commitment to ontological realism where there exists a reality which is independent of the researchers' understanding of it (Maxwell, 2012; Wiltshire, 2018). We therefore acknowledge and accept that other researchers may enter research with different views, and consequently arrive at different findings.

Participants

Forty-five participants aged 18 years or older were recruited into one of the following four groups (Table 1): (a) current and former athletes with current or previous

Table 1. Characteristics of the participants in this study ($n = 45$).

Demographics	Athletes with EP	Athletes without EP	Coaches	Sport practitioners
Sex	Male: $n = 5$ Female: $n = 8$	Male: $n = 6$ Female: $n = 7$	Male: $n = 6$ Female: $n = 1$	Male: $n = 5$ Female: $n = 7$
Age (years)				
Mean (*SD*)	22 (2.6)	20.5 (2.1)	35 (11.3)	31.5 (10.0)
Range	19 – 27	19 – 27	27 – 59	23 – 61
Current athlete	$n = 7$[a]	$n = 13$	–	–
Former athlete	$n = 6$[b]	–	–	–
Sport type / profession	Team sports ($n = 5$); individual sports ($n = 8$)	Team sports ($n = 8$); individual sports ($n = 5$)	Team sports ($n = 6$); individual sports ($n = 1$)	Strength and conditioning ($n = 4$); performance lifestyle ($n = 3$); sport nutrition ($n = 2$); sport psychology ($n = 2$); physiotherapy ($n = 1$)

EP: eating psychopathology. [a]Of the current athletes, 3 reported previous and 4 reported current eating psychopathology symptoms. [b]Of the former athletes, all reported previous eating psychopathology symptoms.

symptoms of eating psychopathology ($n = 13$); (b) current athletes with *no* history of eating psychopathology symptoms ($n = 13$); (c) coaches ($n = 7$); and (d) sport practitioners ($n = 12$). Informed written consent was obtained from every participant.

Of the athletes who reported experiences of eating psychopathology ($n = 13$), two self-reported a current clinical eating disorder diagnosis and four self-reported a previous clinical eating disorder diagnosis. The remaining seven athletes self-reported current ($n = 2$) or previous ($n = 5$) disordered eating symptoms and behaviors but had not received a clinical diagnosis. Athletes with experiences of eating psychopathology reported having symptoms for an average of 3.2 years ($SD = 2.3$) and athletes with previous symptoms experienced these on average 2.5 years ago ($SD = 2.0$). Current athletes with and without experiences of eating psychopathology ($n = 20$) had a mean weekly training duration of 8.6 hours ($SD = 4.5$) and competed on average seven days per month ($SD = 5.0$) at university/club (50%), national (25%) or international (25%) levels. Former athletes ($n = 6$) reported that they had stopped playing their sport an average of 3.4 years ago ($SD = 1.67$).

The coaches supported athletes in athletics, hockey, rugby, basketball and netball and had done so for an average of 12 years ($SD = 8.7$), spending an average of 15.6 hours per week ($SD = 3.3$) working with athletes. All coaches had obtained a relevant qualification for their role (level 3 or 4 UK coach education). The sport practitioners worked as strength and conditioning coaches ($n = 4$), performance lifestyle advisors ($n = 3$), sport nutritionists ($n = 2$), sport psychologists ($n = 2$) or as a physiotherapist ($n = 1$). Sport practitioners worked with athletes across a range of sports and had done so for an average of 7.6 years ($SD = 9.3$) and spent an average of 14 hours per week ($SD = 5.3$) working with athletes. All sport practitioners had obtained a relevant master's degree and had completed ($n = 8$) or were in the process of completing relevant professional training ($n = 4$; trainees). Three coaches and 11 sport practitioners reported previously encountering and/or working with an athlete with an eating problem. Half of the coaches and sport practitioners ($n = 7$) had previously referred athletes for support for

an eating problem. When referring to 'sport professionals,' we refer to all coaches and sport practitioners together.

Procedure

Institutional ethical approval was obtained prior to the start of the study. Participants were recruited in 2018 using convenience sampling from UK higher education institutions, sport clubs and teams. Information about the study was shared at sport team meetings, during sport practice hours, and via email invitations and study posters. First year university athletes were able to take part in exchange for course credits. Sport practitioner volunteers and final year university and non-student athletes were financially reimbursed to thank them for their time in participating.

Two data collection methods were employed; participants only took part in one of the methods and this was determined by the researchers. First, athletes with current or previous symptoms of eating psychopathology took part in semi-structured one-to-one interviews ($n = 13$). Interviews were chosen for use with this group of participants due to the sensitivity of the topic, the potential participant vulnerability and to ensure participant confidentiality. They were given the option of participating in the interview face-to-face ($n = 7$), over the phone ($n = 4$), or via a video call ($n = 2$). Research has suggested that these interview methods can produce equivalent depth of responses (Nehls et al., 2015; Sturges & Hanrahan, 2004) and offering a choice of format can encourage participation (Neville et al., 2016). Second, six semi-structured focus groups, each comprising three to seven participants, were held at a UK University: two with athletes without a history of eating psychopathology ($n = 13$); two with coaches ($n = 7$); and two with sport practitioners ($n = 12$). The focus groups were structured in this way to allow participants to feel more comfortable discussing the research topic with peers of similar characteristics and levels of understanding (Krueger & Casey, 2014). Fewer coaches were recruited as they were harder to reach, however, smaller focus groups can be equally as insightful to larger groups when the purpose is to understand a complex and/or sensitive issue (e.g., Toner, 2009). Critical realism acknowledges that all scientific and observational methods are fallible to some extent (e.g., discursive interviews and focus groups; Wiltshire, 2018). Critical realism has also been suggested to be methodologically pluralist (e.g., Pawson, 2013), and critical realism researchers typically embrace a wide range of qualitative techniques in their research to best answer the research question (e.g., Vincent & O'Mahoney, 2018). Interviews and focus groups were chosen to be the most appropriate data collection methods in the current study due to the relatively large sample size (for a qualitative study) and to efficiently obtain participants' reasons, perspectives, thoughts and feelings on the topic.

Prior to participating in an interview or focus group, all participants completed a background questionnaire where they self-reported their age, sex, details of current role (e.g., sports history, time involved in sport) and self-reported any experiences of eating psychopathology (e.g., current or previous concerns about their eating behaviors, receipt of a clinical eating disorder diagnosis). Interview and focus group schedules of open-ended questions with prompts were developed, refined and finalized by the research team following a thorough review of the literature. For the main body of both

interviews and focus groups, topics for discussion centered around experiences of, and perspectives toward, support and options for support resources for athletes with eating psychopathology. The interview and focus group schedules were semi-structured, allowing for flexibility in both the order of questioning and to allow for exploration of novel topics that came up in the discussions. Some of the questions asked in the interview and focus group schedules were tailored to the specific groups. An example interview question was 'Can you tell me a bit about your experiences or perspectives toward seeking help and support for your eating problem(s)?' and an example focus group question was 'What are your experiences (if any) around offering support to athletes with potential eating problems?'. A copy of the schedules can be obtained from the corresponding author. All focus groups and interviews were audio recorded and facilitated by the first author. The interviews ranged in duration from $36-57$ minutes ($M=45.5$, $SD=6.1$) and focus groups from $45-65$ minutes ($M=55.0$, $SD=7.7$).

Data analysis

All audio recordings were manually transcribed. Data from the focus groups and interviews were first analyzed separately and then together based on the principles of reflexive thematic analysis (Braun et al., 2019). Reflexive thematic analysis is suitable for exploring people's experiences and perceptions and was selected due to the flexibility, openness, variance and stratification it offers, with no preexisting coding framework and with theme development being entirely data driven (Braun et al., 2019). Additionally, both reflexive thematic analysis and the critical realist standpoint adopted in the current study are compatible with the notion that there are different (valid) perspectives on reality (phenomena; Braun et al., 2019; Maxwell, 2012), which was judged to be a good fit with the current study as insights were collected from various participant groups. Reflexive thematic analysis has also been used previously and recently in qualitative research underpinned by the critical realist standpoint where the results yielded new and insightful information on the phenomena studied (e.g., Brown et al., 2020). The analysis is an iterative process that moves backward and forward between stages to facilitate and refine understandings of the reality. In the current study, the analysis followed six main steps: (1) familiarization with the data and noting down initial ideas from the transcripts; (2) coding the data using both descriptive and interpretive codes; (3) based on codes clustered together, generating initial themes and subthemes; (4) reviewing and refining the themes and subthemes; (5) defining and labeling the themes and subthemes; and (6) writing up the analytic narrative and data extracts.

Themes and subthemes from both the interviews and focus groups were developed where strong and salient concepts frequently occurred (e.g., Braun & Clarke, 2006; Ryan & Bernard, 2003). Themes and subthemes from both interviews and focus groups were then represented diagrammatically (at various stages of the analysis) to investigate theme overlap, connections and to promote consideration of alternative thematic structures (Nowell et al., 2017). Critical discussions were held among the research team who acted as critical friends throughout the analyses. This was done to encourage reflexivity, which helped to finalize theme development (Cowan & Taylor, 2016; Smith & Sparkes,

2006) and is a key intention of critical realism (Roberts, 2014). The interpretation of findings was also developed over time alongside the analysis process to aid the explanation of findings, which is another objective of critical realism (Wiltshire, 2018). Furthermore, given the extensive overlap of the themes generated for the focus groups and interviews, these data were combined and presented together, with relevant nuances highlighted within the text. Authenticity of the data was ensured via a participant-driven approach to data collection (i.e., all views and opinions were considered during the analysis; Milne & Oberle, 2005). Finally, as endorsed in critical realism (Wiltshire, 2018), the analytic narrative (results) was presented using both descriptive (e.g., accurately describing participant accounts) and interpretive (e.g., suggesting a wider meaning/relevance and proposing links between descriptive accounts) methods. Results were subsequently empirically discussed using "judgemental rationality" (i.e., theorizing, philosophizing and rationalizing the findings to arrive at appropriate, real conclusions/recommendations based on the accounts brought forward by participants).

Results

Themes and subthemes

This study aimed to understand athletes' and sport professionals' experiences of, and perspectives toward, supporting athletes with eating psychopathology. Initial themes with several subthemes were initially developed for each group of participants from both the interviews and focus groups. Following diagraming on the relationships among all themes and subthemes across all groups, it was evident that there was significant overlap and the final themes and subthemes developed were analogous. Therefore, the results from all participants are presented together but any differences in views between the groups are noted in the text. Two overarching themes with relevant subthemes were developed and finalized (Table 2).

Table 2. Themes and subthemes developed from all interviews and focus groups.

Theme	Subtheme
1. Tensions around addressing eating psychopathology in athletes	1.1. Tensions around communication
	1.2. Tensions around responsibility
	1.3. Tensions around obtaining support
2. Considerations for developing practical tools to support athletes with eating psychopathology	1.4. Athlete confidentiality
	1.5. Athlete control and independence

Theme 1: Tensions around addressing eating psychopathology in athletes

The first theme centered around existing tensions that currently make addressing eating psychopathology in athletes difficult. Participants recognized eating psychopathology to be a concerning issue among athletes, but highlighted athlete/sport professional tensions around (a) communication (Subtheme 1.1), (b) responsibility for addressing and intervening with athlete eating concerns (Subtheme 1.2), and (c) obtaining support for eating concerns (Subtheme 1.3). Discrepancies were identified between athlete *expectations* of sport professionals' management and support provision for athletes with eating psychopathology versus sport professionals' perspectives on their *ability* and *responsibility* around supporting athletes.

Subtheme 1.1. Tensions around communication. All athletes highlighted a lack of dialogue and open communication within the sports context about the pressure athletes experience around eating, weight and exercise, and reported a desire for greater discussion around this area. One 20-year-old male athlete without eating psychopathology said: "*There's a pressure [around eating, training, weight] but it's not really talked about, so athletes kind of just get on with it and try to do the right thing.*" Eating disorders and disordered eating were also perceived by athletes to be a taboo topic, where a sense of embarrassment and anxiety was associated with a reluctance to voice any eating-related concerns. For athletes with personal experiences of eating psychopathology, this tension primarily stemmed from a fear of being treated differently to their peers: "*People struggle to talk about it [eating concerns] because it's such an intimate thing. You don't want to feel less than your teammates and you don't want to be seen as weak and needing help*" (male athlete with eating psychopathology, 23-years-old). However, athletes both with and without personal experiences of eating psychopathology believed that increasing sport professionals' awareness and knowledge of eating psychopathology would help to facilitate greater discussion in the area and that the communication between them and sport professionals would consequently be more effective. One 26-year-old female athlete with previous eating psychopathology added: "*I wanted my coaches to talk to me about my concerns to make them aware of my situation, but there was no mention of it, no support, which I think would have been so helpful at the time.*" These reflections by athletes highlight that they desire their coaches (and potentially other sport professionals) to approach them about any problematic eating behaviors and attitudes to help speed up the recovery process.

Like athletes, coaches and sport practitioners also recognized tensions and challenges with communication around eating psychopathology: "*You know, it's not an easy topic to talk about with athletes because of the sensitivity around it and you don't always really know what to say*" (male performance lifestyle advisor, 31-years-old). In contrast to the expectations of athletes, most coaches and sport practitioners expressed concerns with how best to discuss eating psychopathology with athletes. They reported experiencing tensions and discord between wanting to discuss and address unhealthy eating behaviors and attitudes among athletes, while also feeling like they lacked the necessary knowledge and resources to (a) identify *if* a problem exists, and (b) to successfully broach the issue with the athlete and to offer appropriate support. As a result, some coaches and sport practitioners expressed a reluctance toward addressing disordered eating with their athletes, fearing this could spark a problem that was not there in the first place: "*There's always this line of do you wait, and then react when there is a problem or should you be proactive, but then if you're proactive you worry that you're going to make a deal out of nothing*" (female coach, 31-years-old). These coach and sport practitioner views provide some explanation as to why athletes experience sport professionals to be hesitant when it comes to approaching athletes with potential eating concerns and provide a great deal of room for improving existing tensions around communication to facilitate the support process. Sport practitioners also reported experiencing conflicting feelings about whether they were doing enough to help and support athletes while also feeling concerned that any actions or dialogue with an athlete could exacerbate, rather

than reduce, an athlete's potential eating problem. One 27-year-old female sport physiotherapist reflected:

> I'll get more concerned about being unsure as to whether anything I'm saying isn't helping the situation. So, we do skinfold measurements on our athletes, and you know that power to weight is a huge thing in a lot of sports, but I might be adding to a problem by doing that. Should I be changing the way that I report back … well, based on what? Or will that make it worse … ?

Subtheme 1.2. Tensions around responsibility. Conflicting views were further apparent around perceptions of responsibility in addressing and intervening with athlete eating concerns, with most athletes without a history of eating psychopathology and some coaches identifying that this responsibility most closely aligned with the role of sport nutritionists: "*Probably the nutritionist … because it's kind of their domain*" (female athlete without eating psychopathology, 19-years-old). All athletes also pointed out that most sport professionals should have some level of responsibility, particularly around identifying unhealthy behaviors in athletes early on: "*I think it would be worthwhile for coaches and staff to have more information and resources, so they can pick up on athletes who have unhealthy behaviors*" (female athlete without eating psychopathology, 21-years-old). However, some athletes with current or previous eating psychopathology symptoms who had sought and received therapy felt the main responsibility for intervening with symptoms aligned more with the role of sport and clinical psychologists, with additional nutritional advice perceived as helpful for supporting athletes to make changes to their eating behavior:

> I do feel like seeing someone does work, just talking things through … I've previously seen a sport psychologist and a therapist, and both were helpful. Maybe if you talk to someone who knows about food as well, like a nutritionist, that can help you eat properly for your training (male athlete with previous eating psychopathology, 19-years-old).

Most sport practitioners (particularly the sport nutritionists and performance lifestyle advisors) believed the responsibility for intervening with, and offering support for, eating psychopathology symptoms aligned with the role of psychologists:

> I'm not a psychologist, I know the limits of my practice. I'd say most of the help is down a psychology route. Sport psychologists can help with the performance side of things and possibly how that links to their eating problem, whereas I think clinical psychologists are probably better at actually helping the athlete address their disordered eating behaviors (male sport nutritionist, 24-years-old).

Some coaches also placed the responsibility on athletes to seek support but reported feeling that athletes having access to support to address their concerns was lacking, yet crucial in enabling them to make this first step toward seeking assistance for addressing their eating problem. Support from coaches or sport practitioners was perceived to be secondary, largely because they felt ill-equipped to support athletes with eating concerns:

> If they [athletes] come to us, they are literally exhausted … and we [coaches] don't necessarily know what to do when or if they come to us. Available support options would be an extra steppingstone in helping athletes address their problems before coming to us, so making sure they [support options] are available out there for athletes is important (male coach, 36-years-old).

Subtheme 1.3. Tensions around obtaining support. Tensions were further identified between athletes and sport professionals reporting a need and desire for information and resources on how to effectively support athletes, whilst facing challenges with the availability and accessibility of relevant resources: *"I have never seen any available resources or educational pieces that tackle disordered eating specifically for athletes"* (female athlete without eating psychopathology, 19-years-old). However, some athletes reported that existing, general (non-athlete) information around eating disorders was generally helpful for recognizing symptoms in themselves: *"I found some support through a general eating disorder website because it allowed me to recognize what was happening to me"* (female athlete with previous eating psychopathology, 19-years-old). This general information was perceived to be less helpful and relevant than information that was specifically targeted for athletes, because the advice did not sufficiently consider athletic needs and values (e.g., around performance and training goals). Athletes therefore desire support and resources which are tailored to them, and this may be important to consider in future to facilitate athlete engagement with, and acceptance of, support resources for eating psychopathology. Athletes with current and previous eating psychopathology discussed how they had tried (unsuccessfully) to source athlete-specific guidance and support on how to continue their sports training whilst experiencing difficulties with their eating. One 20-year-old female athlete with current eating psychopathology symptoms explained:

> I looked for information about eating disorders online but the advice I found didn't really consider that we [athletes] need to continue training a lot and to compete and perform regularly, sometimes multiple times a week. I felt the information didn't really apply to me, especially the advice around stopping or reducing my training.

Among the athletes who had previously sought and received therapy for their symptoms, some with a clinical eating disorder were frustrated at the time that their involvement in sport and their training obligations were not considered, or were prevented, by the therapist. However, they highlighted the positive long-term effects on their life quality that resulted from pausing their participation in sport when they were struggling with an eating disorder: "*When I was going through my treatment, I wasn't allowed to play sport, but when I look back, it's probably the best thing that's happened to me"* (female athlete with previous eating psychopathology, 23-years-old). Additionally, most athletes with and without eating psychopathology were further frustrated by the lack of variety of support options for eating problems and felt that in-person counseling was the only source of support on offer to address symptoms, although this was not necessarily their preference. These athletes held the view that face-to-face support with someone unfamiliar to them would be an uncomfortable environment for disclosing concerns. One 23-year-old male athlete with current eating psychopathology symptoms reflected: *"Other than going to see a therapist, do I know what resources are available and accessible to help me enable myself make the right choices? Not at all, no. I wouldn't be comfortable talking to a therapist at this stage, so that's not really for me."*

Similarly, beyond therapy and nutritional advice, sport practitioners and coaches were not aware of any eating psychopathology resources, information or guidance specifically for athletes, despite a desire and reported need for such resources: *"There's no formalized resource or specific guidance or information for athletes on how to address*

their eating problem that I've seen available at the moment" (male strength and conditioning instructor [trainee], 31-years-old).

Theme 2: Considerations for developing practical tools to support athletes with eating psychopathology

The second theme centered around participants' experiences of, and perspectives and expectations toward, resources that can help to address eating problems in athletes (Table 2). Aligning with the tensions depicted in Theme 1, participants discussed the need for resources and support that is tailored to athletes, and which is available for them to access at an early stage of an eating problem. Resources should also be available for sport professionals who are in the position of signposting athletes to sources of support. Participants emphasized (a) athlete confidentiality (Subtheme 2.1), and (b) athlete control and independence (Subtheme 2.2) as important factors to consider when developing future practical tools for supporting athletes with eating difficulties.

Subtheme 2.1. Athlete confidentiality. Across all focus groups and interviews, athlete confidentiality was highlighted as being an essential component of support resources which could be accessed when initial eating psychopathology symptoms appear. The focus on confidentiality derived from athletes discussing their concerns about overtly seeking and receiving support, fearing this could negatively affect player selections or potentially result in prevention from training. The tensions around communication reported by participants are also likely to contribute to the focus on, and importance of, confidentiality. Athletes feeling that future support resources for eating psychopathology offer confidentiality may be an important factor while tensions continue to exist between athletes and sport professionals around communication and openness. One 19-year-old female athlete without eating psychopathology highlighted: *"I think confidentiality is a massive factor, because obviously you don't want everyone knowing, especially if it is going to end up with future coaches, teammates or the media [finding out] … and maybe then affect your sport and training."* Coaches and sport practitioners emphasized that confidentiality is important for allowing athletes to make their own decisions around seeking support without the involvement of others. One 59-year-old male coach stated: *"It must be in private and confidential. If an athlete wants support and to engage with a resource, then that is up to the athlete and no one else needs to know unless they want to tell people."*

Among the athletes with current or previous eating psychopathology symptoms, more than half ($n = 9$) believed that the availability of confidential practical support could help facilitate both athletes seeking and receiving support much earlier on. One 19-year-old male athlete with previous symptoms of eating psychopathology said: *"If someone was there when I had my problem and kind of like 'we can help you through it privately,' I would have given it a go."* Moreover, sport professionals also highlighted that confidential resources and tools that help athletes come to terms with their eating problem may further help athletes to develop the courage to disclose their eating concerns with relevant people. One 26-year-old female performance lifestyle advisor added:

> To be able to 'change' the privacy part as you move through a resource might be good, because at the start you might not want everyone knowing, but as you progress through it,

> it might be good for athletes if they can talk to someone like a teammate or a coach, to encourage communication and work towards a goal that way.

Additionally, with the resources at hand and from a practical point of view, coaches and sport practitioners emphasized that an available, confidential step-by-step self-help manual could be helpful not only for the athletes, but also for individuals who are in a position of signposting athletes toward appropriate and relevant support resources. This approach may help to address existing tensions around obtaining support and the lack of relevant support resources for athletes and sport professionals alike. One 27-year-old male sport psychologist in training said:

> If we're talking about what's realistic and what tools we can have in our arsenal as coaches, as practitioners, as people who inspire athletes, I would appreciate [it] if a resource like a self-help program was a tool that I had access to.

Subtheme 2.2. Athlete control and independence. All participants discussed the importance of developing resources which would enable early intervention for athletes with mild eating problems (i.e., subclinical symptoms) and which facilitate athlete independence by putting the athlete in control of the degree and pace of engagement. This was viewed as important because such support resources can be tailored to athletes and can be designed to be completed around training schedules, as well as to motivate further support seeking. Participants particularly believed such resources to be useful for addressing eating psychopathology symptoms at an early stage: *"If it's the beginning of the eating problem, when symptoms are not so severe, I think something like a self-led resource could be really useful… because the self-education bit can kind of kickstart the helping part"* (female athlete without eating psychopathology, 22-years-old). Similarly, one 20-year-old male athlete with current eating psychopathology reflected:

As an athlete you have to be structured and stick to your training schedules because you know that's eventually going to improve your performance. You're given guidance on how to do that but ultimately, you're in control over it. I'm aware that my binge eating affects my performance and I want to do something about it. I feel like I need some support on how to change but I would prefer to be in control over actually doing the work rather than being told what to do or being monitored by someone. I think that would be beneficial for me. Athletes emphasized the appeal of having resources which are progressive (e.g., goal-oriented), require focus and can offer incremental improvements along the way; similar to a personalized exercise program: *"I think that a lot more athletes would take part in self-led programs because it is essentially like a training program, just around your eating behaviors. It would suit an athlete's schedule"* (male athlete with current eating psychopathology, 19-years-old).

However, sport professionals highlighted some concerns about adherence to independent resources where athletes work through the resources alone. For example, independent resources were perceived to place too much of the responsibility on athletes in receiving and following through with the support. Specifically, adherence was thought to be influenced by an athlete's level of motivation to change their behaviors, suggesting that independent resources may only be suitable for athletes who are intrinsically motivated to accept and engage with support. Most athletes also noted that such an approach would not necessarily be appropriate for athletes who denied having a

problem, or who refused to accept support, as there would be no accountability: "*Athletes may not actually go through with it. They may tell someone that they are doing it, but not actually completing it*" (male athlete without eating psychopathology, 19-years-old). Although possible issues with independent support resources were raised, the potential, positive impact of available practical support was emphasized by participants. One 27-year-old male sport psychologist in training added: "*You know, with my athletes, if I thought a self-led resource [for eating problems] would do any of them good, I think that's something that they would take on board. I can see that having a positive outcome.*"

Discussion

This study aimed to understand athletes' and sport professionals' experiences of, and perspectives toward, supporting athletes with eating psychopathology symptoms. This is the first study to find that male and female athletes with and without a history of eating psychopathology, coaches and sport practitioners hold broadly similar views about support for athletes with eating psychopathology symptoms. Two overarching themes were generated from the data. The first highlighted existing tensions that currently make addressing eating psychopathology in athletes difficult. Athletes and sport professionals highlighted challenges with communication around eating problems and conflicting perceptions around the responsibility of addressing and intervening with athlete eating psychopathology. They also reported difficulties obtaining relevant and timely support for athletes. The second theme highlighted a desire for practical, tailored support tools and resources to help athletes address their eating problems early on. Athlete confidentiality alongside athlete control and independence were highlighted as important features to consider with the format of future practical support resources.

Tensions around communication between athletes and sport professionals were identified. The athletes in this study reported fearing that their athletic identities might become threatened if they approached a sport professional for support with a potential eating problem (e.g., being perceived as weak or needing help; Brewer & Petitpas, 2017). Athletes reported a reluctance to disclose their eating problems and, instead, placed the responsibility on sport professionals to identify and raise concerns about athletes who presented with potential eating problems. However, the sport professionals reported lacking confidence and knowledge around identifying, communicating with, and offering support to, athletes displaying problematic behaviors. Similar findings have been found with coaches (e.g., Nowicka et al., 2013; Plateau et al., 2014, 2015), sport physiotherapists, fitness instructors and performance directors (e.g., McArdle et al., 2016). However, this study found that these challenges are also reported by sport psychologists, sport nutritionists and performance lifestyle advisors. This miscommunication and lack of action from both an assortment of athletes and sport professionals implies a two-sided culture of silence which is likely to exacerbate any problematic athlete eating behaviors. This highlights the importance of developing future support resources and interventions which are widely available to the sport community and which can be accessed with ease. Additionally, there may be a need to better support sport professionals in developing their communication skills related to athletes' mental

health (e.g., to facilitate open and honest conversations with athletes; Bissett et al., 2020). Such training could be built into professionals' education requirements in future, and research should explore the potential effectiveness of this. The athletes in the current study also highlighted that by increasing sport professionals' knowledge of eating psychopathology in athletes, uncertainties around communication may reduce, while the confidence of sport professionals in addressing athlete eating concerns may increase. This aligns with previous research which suggested that sport professionals would benefit from further education to improve their communication around disordered eating with athletes (McArdle et al., 2016), although the effectiveness of this suggestion has yet to be evaluated. Moreover, the athletes in this study also identified more pervasive cultural issues around eating psychopathology in sport (e.g., taboo topic, stigma, athlete pressures) which may halt a more open culture and discussion around this area (e.g., McArdle et al., 2016; Papathomas & Lavallee, 2010). These cultural issues and the diffusion of responsibility highlighted by athletes and sport professionals in this study, who reported expecting others to act before they did, suggest a need for wider, systemic changes. This implication means that understanding and addressing sociocultural norms relating to weight, shape and dieting across all levels of sport, from athletes and sport professionals through to management and sport officials, is likely to be a particularly important area to target in future.

Sport professionals' and athletes' perceptions around *who* has the responsibility for addressing and intervening with athlete eating concerns also appear misaligned. Indeed, participants were divided between perceiving this responsibility to lie more with sport nutritionists (most athletes without eating psychopathology and some coaches) versus sport or clinical psychologists (athletes with eating psychopathology and sport professionals). This disconnect may point to a misunderstanding of what an eating problem is and to the challenges associated with identifying and intervening with symptoms (Currie, 2010). Equally, these perceptions could mirror the varying availability of support provision across sports for athletes with eating and other mental health concerns (e.g., sport nutrition, sport and clinical psychology services; Moesch et al., 2018). Sport nutritionists are a useful source of support for intervening with athletes' dietary behaviors and they might be able to offer nutritional support and advice to athletes in the early stages of an eating problem (e.g., Bentley et al., 2019). However, addressing eating psychopathology symptoms in athletes is not within the skillset of most sport nutritionists, and evidence of the impact of the provision of nutritional information for effectively addressing eating psychopathology in athletes is limited (e.g., Heaney et al., 2011). Additionally, while sport psychologists can have a key role in identifying the signs and symptoms of a potential eating disorder, clinical psychologists play a more significant role in supporting athletes with clinical eating disorders (e.g., Roberts et al., 2016). However, many clinical psychologists lack sport and athlete-specific knowledge which may limit them in providing effective and relevant care (Roberts et al., 2016). Nevertheless, participants in this study agreed that if a clinical eating disorder is suspected, clinical support is required, and it may be appropriate for the athlete to pause their participation in sport whilst working on recovery (Currie & Crosland, 2009). Based on these comparisons, it is therefore recommended that sport professionals discuss with their colleagues who

might be best positioned and qualified to approach and offer support to an athlete with a potential eating problem.

The responsibility for confronting eating problems and seeking support was further placed on the athletes themselves by some coaches in this study. This may reflect that some coaches are hesitant about addressing eating psychopathology in athletes due to a lack of understanding of eating psychopathology and not knowing what to say, how best to act or where to signpost athletes with concerns (e.g., Plateau et al., 2015). As such, the current study conflicts with previous research and their implications for practice where coaches have been placed as the first responders in identifying and intervening with athlete eating concerns (e.g., Selby & Reel, 2011). Due to the conflicting views around responsibility found in the current study, sport professionals and athletes would benefit from education and training around the connotation and consequences of eating psychopathology, which could be delivered by individuals with valuable knowledge of both eating psychopathology and the sport context. Additionally, regardless of their role in sport, having an awareness of the support resources available for athletes and making timely referrals is essential for *all* sport professionals in supporting their athletes' wellbeing (e.g., Mountjoy et al., 2014; Putukian, 2016).

However, participants in the present study reported a lack of awareness of relevant resources and emphasized a need for more accessible and sport-specific support (e.g., considering performance), which presents a further challenge in addressing and supporting athletes with eating problems. Specifically, resources that can be delivered or accessed around athletes' schedules (e.g., training commitments) were favored, which is in line with the recent recommendations for general mental health interventions for athletes (Shannon et al., 2019). It is plausible that athletes look for specific support and guidance which recognizes their athletic identity, perhaps in view of their hesitancy to relinquish their identity, or being in identity foreclosure (e.g., Brewer & Petitpas, 2017). Importantly, continuing to train and compete may exacerbate existing eating problems among athletes (e.g., Gapin & Petruzzello, 2011). Nonetheless, participants in the current study, and in previous research, emphasized the need for eating psychopathology resources to be tailored to athletes (e.g., Arthur-Cameselle & Quatromoni, 2014; Biggin et al., 2017; Hines et al., 2019). The second theme developed in this study is the first evidence to reveal the nature and format of support which appeal to athletes, as well as sport professionals' perceptions around the suitability and practicality of these for use by athletes with eating difficulties.

All athletes and sport professionals highlighted a need for practical early intervention tools and resources to help address eating problems before symptoms worsen, which is a clear applied implication arising from this research. Early intervention has been recognized as an important step toward a successful recovery (Joy et al., 2016). Athlete confidentiality was highlighted by participants to be a vital component of the format and delivery of future resources and has been suggested to be crucial for allowing athletes to seek and receive support covertly (e.g., to protect their athletic identity; Putukian, 2016; Roberts et al., 2016), which athletes and sport professionals in this study felt was essential. Confidentiality was also viewed by athletes as being valuable for reducing the stigma (e.g., embarrassment) attached to openly seeking help with a therapist for an

eating or other mental health problem, as has been suggested previously (e.g., Papathomas & Lavallee, 2010; Roberts et al., 2016).

The current findings further advance our understanding of how athletes with eating concerns can be supported more effectively. Athletes and sport professionals highlighted athlete control and independence over the degree and pace of engagement to be another vital component of early intervention resources; a finding not previously reported in the sport and eating disorder literature. However, this aligns with the preferences of young active adults around seeking and receiving support for other mental health concerns (Gulliver et al., 2010). From highlighting important components such as athlete confidentiality and independence, support resources which are self-paced and self-led were identified by the participants in the current study to be a practical and preferable option for athletes to engage with support for their eating concerns. These preferences and their applied implications for future intervention development align with the current UK National Institute for Health and Care Excellence (2017) recommendations for self-help intervention approaches as a first line of support to address mild to moderate eating problems.

The novel perspectives and preferences around future support resources from athletes and sport professionals in this study build on Biggin et al.' (2017) argument for a need to identify ways that athletes can seek and receive support for eating psychopathology more autonomously and with more independence. The findings of the current study also question the appropriateness of the group-based, face-to-face format which is so common in existing athlete eating psychopathology interventions (Sandgren et al., 2020), suggesting that there will be value in exploring and evaluating other intervention formats in future. In particular, findings from the current study suggest self-led interventions may be a more suitable and preferable format for delivering early intervention and support to athletes. One reason for the contradiction between our findings and existing interventions for athletes may be because of the lack of participatory approaches adopted to inform decisions around intervention format and the lack of process evaluation data collected in the intervention studies reviewed by Sandgren et al. (2020). Importantly, self-led interventions also hold great potential for being implemented on a large scale (e.g., Wilson & Zandberg, 2012), which is another notable limitation with the format and delivery of existing athlete eating psychopathology interventions (Sandgren et al., 2020), and this approach is recommended as the first line of intervention within the National Institute of Health and Care Excellence (2017) guidelines for eating disorders.

Although it is worth noting that confidential and independent support resources may not encourage the immediate openness that some athletes in this study advocated for, this format is believed to be likely to help athletes develop the courage to disclose their eating concerns to relevant people in due course (e.g., a professional). Initiating disclosure has been identified to be an important step in accessing further support and treatment for an eating problem (e.g., Gilbert et al., 2012). Additionally, previous research in the general population reports that early self-help interventions which preserve participant confidentiality can improve participants' readiness to change and further motivate them to seek and accept additional support or treatment (e.g., Leung et al., 2013). However, participants in the current study highlighted the possibility that only athletes

who are intrinsically motivated to change their behaviors will benefit from, and complete, self-help programs. Indeed, being intrinsically motivated to start making and maintaining behavioral changes is fundamentally important in recovering from an eating problem (Prochaska et al., 1993; Sjogren, 2017). Self-help interventions may therefore not be suitable for athletes who are in denial of their eating problem or lack motivation to change. Nonetheless, the clear applied implications in the wake of the current study's findings suggest the potential value in developing self-help approaches for delivering alternative early intervention and support to athletes with subclinical eating problems, although one has yet to be developed and evaluated.

A significant strength of this study is the inclusion of not only athletes both with and without a history of eating psychopathology, but also a variety of sport professionals. This is the first study to explore multiple perspectives and to offer direct comparisons between athletes, coaches and a wide cross-section of sport practitioners on issues surrounding eating psychopathology in athletes. Male athletes are also highly represented in this study which addresses a recently reported considerable limitation with previous work (McGannon & McMahon, 2019). Gathering diverse perspectives on this topic is useful and important for understanding the issues more broadly, however, it will be helpful to further explore the views of some groups (e.g., sport practitioners) to gain a deeper understanding of their precise opinions and explore how these may or may not match the views of the target group. Furthermore, some limitations need to be acknowledged. The results only reflect the views of athletes and sport professionals based in the UK and, as such, the findings may not be representative of athletes and sport professionals more widely. Similarly, most of the coaches were male, and it may therefore be possible that their views do not reflect the views of female coaches who have previously been found to be more observant than males around eating psychopathology in athletes (e.g., Kroshus et al., 2018; Nowicka et al., 2013). Future research can usefully build on these findings by investigating differences in the availability of support for eating psychopathology across different sport types to identify any sports that may require targeted intervention.

In conclusion, tensions exist among athletes and sport professionals which make addressing eating psychopathology in athletes difficult. If these tensions are not addressed, they will likely continue to limit the successful identification of athletes with eating problems and hinder their subsequent access to appropriate and timely support. This could leave many athletes at risk of their symptoms worsening and being exposed to serious health and performance consequences. The evidence presented here generates implications for practice and suggests that there is a need to develop accessible, confidential and tailored early intervention resources which athletes can access with ease and engage with independently in the early stages of an eating problem. In turn, this will provide athletes and sport professionals with additional, relevant support resources to assist with the complex process of addressing and intervening with eating psychopathology symptoms in athletes.

Acknowledgements

The authors thank Dr Gareth Wiltshire for providing valuable input on the critical realist position which underpins this study.

Disclosure statement

The authors have no financial or non-financial competing interests to declare.

Funding

Dr Sebastian S. Sandgren was supported by a PhD studentship from the School of Sport, Exercise and Health Sciences, Loughborough University. There was no other funding for this work.

Data availability statement

Due to the nature of this research, participants of this study did not agree for their data to be shared publicly, so supporting data is not available.

ORCID

Sebastian S. Sandgren http://orcid.org/0000-0002-8782-8454
Emma Haycraft http://orcid.org/0000-0002-7359-1759
Carolyn R. Plateau http://orcid.org/0000-0002-1256-1353

References

Archer, M., Decoteau, C., Gorski, P., Little, D., Porpora, D., Rutzou, T., Smith, C., Steinmetz, G., & Vandenberghe, F. (2016). What is critical realism? *Perspectives*, *38*(2), 4–9.

Arthur-Cameselle, J. N., & Quatromoni, P. A. (2014). A qualitative analysis of female collegiate athletes' eating disorder recovery experiences. *The Sport Psychologist*, *28*(4), 334–346. https://doi.org/10.1123/tsp.2013-0079

Bar, R. J., Cassin, S. E., & Dionne, M. M. (2016). Eating disorder prevention initiatives for athletes: A review. *European Journal of Sport Science*, *16*(3), 325–335. https://doi.org/10.1080/17461391.2015.1013995

Bentley, M. R., Mitchell, N., Sutton, L., & Backhouse, S. H. (2019). Sports nutritionists' perspectives on enablers and barriers to nutritional adherence in high performance sport: A qualitative analysis informed by the COM-B model and theoretical domains framework. *Journal of Sports Sciences*, *37*(18), 2075–2085. https://doi.org/10.1080/02640414.2019.1620989

Bhaskar, R. (1979). *The possibility of naturalism: A philosophical critique of the contemporary human sciences*. Humanities Press.

Bhaskar, R. (1989). *Reclaiming reality: A critical introduction to contemporary philosophy*. Verso.

Biggin, I. J., Burns, J. H., & Uphill, M. (2017). An investigation of athletes' and coaches' perceptions of mental ill-health in elite athletes. *Journal of Clinical Sport Psychology*, *11*(2), 126–147. https://doi.org/10.1123/jcsp.2016-0017

Bissett, J. E., Kroshus, E., & Hebard, S. (2020). Determining the role of sport coaches in promoting athlete mental health: A narrative review and Delphi approach. *BMJ Open Sport & Exercise Medicine*, *6*(1), e000676. https://doi.org/10.1136/bmjsem-2019-000676

Bratland-Sanda, S., & Sundgot-Borgen, J. (2013). Eating disorders in athletes: Overview of prevalence, risk factors and recommendations for prevention and treatment. *European Journal of Sport Science*, *13*(5), 499–508. https://doi.org/10.1080/17461391.2012.740504

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2019). Thematic analysis. In P. Liamputtong (Ed). *Handbook of research methods in health social sciences* (pp. 843–860). Springer.

Brewer, B. W., & Petitpas, A. J. (2017). Athletic identity foreclosure. *Current Opinion in Psychology*, *16*, 118–122. https://doi.org/10.1016/j.copsyc.2017.05.004

Brown, C. J., Butt, J., & Sarkar, M. (2020). Overcoming performance slumps: Psychological resilience in expert cricket batsmen. *Journal of Applied Sport Psychology*, *32*(3), 277–296. https://doi.org/10.1080/10413200.2018.1545709

Buchholz, A., Mack, H., McVey, G., Feder, S., & Barrowman, N. (2008). BodySense: An evaluation of a positive body image intervention on sport climate for female athletes. *Eating Disorders*, *16*(4), 308–321. https://doi.org/10.1080/10640260802115910

Byrne, M. (2019). Increasing the impact of behavior change intervention research: Is there a role for stakeholder engagement? *Health Psychology*, *38*(4), 290–296. https://doi.org/10.1037/hea0000723

Coelho, G. M., Gomes, A. I., Ribeiro, B. G., & Soares, E. A. (2014). Prevention of eating disorders in female athletes. *Open Access Journal of Sports Medicine*, *5*, 105–113. https://doi.org/10.2147/OAJSM.S36528

Cowan, D., & Taylor, I. M. (2016). I'm proud of what I achieved; I'm also ashamed of what I done': A soccer coach's tale of sport, status, and criminal behaviour. *Qualitative Research in Sport, Exercise and Health*, *8*(5), 505–518. https://doi.org/10.1080/2159676X.2016.1206608

Currie, A. (2010). Sport and eating disorders – Understanding and managing the risks. *Asian Journal of Sports Medicine*, *1*(2), 63–68. https://doi.org/10.5812/asjsm.34864

Currie, A., & Crosland, J. (2009). Responding to eating disorders in sport – UK guidelines. *Nutrition & Food Science*, *39*(6), 619–626. https://doi.org/10.1108/00346650911002940

de Bruin, A. K. (2017). Athletes with eating disorder symptomatology, a specific population with specific needs. *Current Opinion in Psychology*, *16*, 148–153. https://doi.org/10.1016/j.copsyc.2017.05.009

Doyle-Lucas, A. F., & Davy, B. M. (2011). Development and Evaluation of an Educational Intervention Program for Pre-professional Adolescent Ballet Dancers: Nutrition for Optimal Performance. *Journal of Dance Medicine & Science*, *15*(2), 65–75.

Gapin, J. I., & Petruzzello, S. J. (2011). Athletic identity and disordered eating in obligatory and non-obligatory runners. *Journal of Sports Sciences*, *29*(10), 1001–1010. https://doi.org/10.1080/02640414.2011.571275

Gilbert, N., Arcelus, J., Cashmore, R., Thompson, B., Langham, C., & Meyer, C. (2012). Should I ask about eating? Patients' disclosure of eating disorder symptoms and help-seeking behaviour. *European Eating Disorders Review*, *20*(1), 80–85. https://doi.org/10.1002/erv.1143

Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, *10*(1), 113–119. https://doi.org/10.1186/1471-244X-10-113

Harris, J., Croot, L., Thompson, J., & Springett, J. (2016). How stakeholder participation can contribute to systematic reviews of complex interventions. *Journal of Epidemiology and Community Health*, *70*(2), 207–214. https://doi.org/10.1136/jech-2015-205701

Heaney, S., O'Connor, H., Michael, S., Gifford, J., & Naughton, G. (2011). Nutrition knowledge in athletes: A systematic review. *International Journal of Sport Nutrition and Exercise Metabolism*, *21*(3), 248–261. https://doi.org/10.1123/ijsnem.21.3.248

Hines, J. C., Wendorf, W. L., Hennen, A. N., Hauser, K. L., Mitchell, M. M., & Homa, J. M. (2019). How do lean and non-lean female collegiate athletes view the eating disorder education they receive from their coaches. *International Journal of Sports Science & Coaching*, *14*(2), 169–178. https://doi.org/10.1177/1747954118825060

Joy, E., Kussman, A., & Nattiv, A. (2016). 2016 update on eating disorders in athletes: A comprehensive narrative review with a focus on clinical assessment and management. *British Journal of Sports Medicine*, *50*(3), 154–162. https://doi.org/10.1136/bjsports-2015-095735

Kerr, G., Berman, E., & Souza, M. J. D. (2006). Disordered eating in women's gymnastics: Perspectives of athletes, coaches, parents, and judges. *Journal of Applied Sport Psychology*, *18*(1), 28–43. https://doi.org/10.1080/10413200500471301

Krueger, R. A., & Casey, M. A. (2014). *Focus groups: A practical guide for applied research* (5th Ed). SAGE publications.

Kroshus, E., DeFreese, J. D., & Kerr, Z. Y. (2018). Collegiate athletic trainers' knowledge of the female athlete triad and relative energy deficiency in sport. *Journal of Athletic Training*, *53*(1), 51–59. https://doi.org/10.4085/1062-6050-52.11.29

Kroshus, E., Goldman, R. E., Kubzansky, L. D., & Austin, S. B. (2014). Team-level approaches to addressing disordered eating: A qualitative study of two female collegiate cross country running teams. *Eating Disorders*, *22*(2), 136–151. https://doi.org/10.1080/10640266.2013.867744

Leung, S. F., Ma, J., & Russell, J. (2013). Enhancing motivation to change in eating disorders with an online self-help program. *International Journal of Mental Health Nursing*, *22*(4), 329–339. https://doi.org/10.1111/j.1447-0349.2012.00870.x

Maxwell, J. A. (2012). *A realist approach for qualitative research*. SAGE.

McArdle, S., Meade, M. M., & Moore, P. (2016). Exploring attitudes toward eating disorders among elite athlete support personnel. *Scandinavian Journal of Medicine & Science in Sports*, *26*(9), 1117–1127. https://doi.org/10.1111/sms.12515

McGannon, K. R., & McMahon, J. (2019). Understanding female athlete disordered eating and recovery through narrative turning points in autobiographies. *Psychology of Sport and Exercise*, *40*, 42–50. https://doi.org/10.1016/j.psychsport.2018.09.003

Milne, J., & Oberle, K. (2005). Enhancing rigor in qualitative description. *Journal of Wound, Ostomy, and Continence Nursing*, *32*(6), 413–420.

Moesch, K., Kenttä, G., Kleinert, J., Quignon-Fleuret, C., Cecil, S., & Bertollo, M. (2018). FEPSAC position statement: Mental health disorders in elite athletes and models of service provision. *Psychology of Sport and Exercise*, *38*, 61–71. https://doi.org/10.1016/j.psychsport.2018.05.013

Moore, G. F., Audrey, S., Barker, M., Bond, L., Bonell, C., Hardeman, W., Moore, L., O'Cathain, A., Tinati, T., Wight, D., & Baird, J. (2015). Process evaluation of complex interventions: Medical Research Council guidance. *BMJ*, *350*, h1258. https://doi.org/10.1136/bmj.h1258

Mountjoy, M., Sundgot-Borgen, J., Burke, L., Carter, S., Constantini, N., Lebrun, C., Meyer, N., Sherman, R., Steffen, K., Budgett, R., & Ljungqvist, A. (2014). The IOC consensus statement: Beyond the female athlete Triad-Relative Energy Deficiency in Sport (RED-S). *British Journal of Sports Medicine* , *48*(7), 491–497. https://doi.org/10.1136/bjsports-2014-093502

National Institute for Health and Care Excellence. (2017). *Eating disorders: Recognition and Treatment, No. 69*. NICE.

Nehls, K., Smith, B. D., & Schneider, H. A. (2015). Video-conferencing interviews in qualitative research. In *Enhancing qualitative and mixed methods research with technology* (pp. 140–157). IGI Global.

Neville, S., Adams, J., & Cook, C. (2016). Using internet-based approaches to collect qualitative data from vulnerable groups: Reflections from the field. *Contemporary Nurse*, *52*(6), 657–668. https://doi.org/10.1080/10376178.2015.1095056

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1), 160940691773384. https://doi.org/10.1177/1609406917733847

Nowicka, P., Eli, K., Ng, J., Apitzsch, E., & Sundgot-Borgen, J. (2013). Moving from knowledge to action: A qualitative study of elite coaches' capacity for early intervention in cases of eating disorders. *International Journal of Sports Science & Coaching*, *8*(2), 343–355. https://doi.org/10.1260/1747-9541.8.2.343

O'Mahoney, J., & Marks, A. (2014). Researching identity: A critical realist approach. In P. Edwards, J. O'Mahoney & S. Vincent (Eds), *Studying organizations using critical realism* (pp. 66–85). Oxford University Press.

Papathomas, A., & Lavallee, D. (2010). Athlete experiences of disordered eating in sport. *Qualitative Research in Sport and Exercise*, *2*(3), 354–370. https://doi.org/10.1080/19398441.2010.517042

Pawson, R. (2013). *The science of evaluation: A realist manifesto*. SAGE.

Piran, N. (1999). Eating disorders: A trial of prevention in a high risk school setting. *The Journal of Primary Prevention*, *20*(1), 75–90. https://doi.org/10.1023/A:1021358519832

Plateau, C. R., Arcelus, J., Leung, N., & Meyer, C. (2017). Female athlete experiences of seeking and receiving treatment for an eating disorder. *Eating Disorders*, *25*(3), 273–277. https://doi.org/10.1080/10640266.2016.1269551

Plateau, C. R., Arcelus, J., McDermott, H. J., & Meyer, C. (2015). Responses of track and field coaches to athletes with eating problems. *Scandinavian Journal of Medicine & Science in Sports*, *25*(2), e240–e250. https://doi.org/10.1111/sms.12286

Plateau, C. R., McDermott, H. J., Arcelus, J., & Meyer, C. (2014). Identifying and preventing disordered eating among athletes: Perceptions of track and field coaches. *Psychology of Sport and Exercise*, *15*(6), 721–728. https://doi.org/10.1016/j.psychsport.2013.11.004

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1993). In search of how people change: Applications to addictive behaviors. *Journal of Addictions Nursing*, *5*(1), 2–16. https://doi.org/10.3109/10884609309149692

Putukian, M. (2016). The psychological response to injury in student athletes: A narrative review with a focus on mental health. *British Journal of Sports Medicine*, *50*(3), 145–148. https://doi.org/10.1136/bjsports-2015-095586

Roberts, C. M., Faull, A. L., & Tod, D. (2016). Blurred lines: Performance enhancement, common mental disorders and referral in the UK athletic population. *Frontiers in Psychology*, *7*, 1067. https://doi.org/10.3389/fpsyg.2016.01067

Roberts, J. M. (2014). Critical realism, dialectics, and qualitative research methods. *Journal for the Theory of Social Behaviour*, *44*(1), 1–23. https://doi.org/10.1111/jtsb.12056

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods*, *15*(1), 85–109. https://doi.org/10.1177/1525822X02239569

Sandgren, S. S., Haycraft, E., & Plateau, C. R. (2020). Nature and efficacy of interventions addressing eating psychopathology in athletes: A systematic review of randomised and non-randomised trials. *European Eating Disorders Review*, *28*(2), 105–121. https://doi.org/10.1002/erv.2704

Scott, C. L., Haycraft, E., & Plateau, C. R. (2019). Teammate influences on the eating attitudes and behaviours of athletes: A systematic review. *Psychology of Sport and Exercise*, *43*, 183–194. https://doi.org/10.1016/j.psychsport.2019.02.006

Selby, C. L., & Reel, J. J. (2011). A coach's guide to identifying and helping athletes with eating disorders. *Journal of Sport Psychology in Action*, *2*(2), 100–112. https://doi.org/10.1080/21520704.2011.585701

Shannon, S., Breslin, G., Haughey, T., Sarju, N., Neill, D., Lawlor, M., & Leavey, G. (2019). Predicting student-athlete and non-athletes' intentions to self-manage mental health: Testing an integrated behaviour change model. *Mental Health & Prevention*, *13*, 92–99. https://doi.org/10.1016/j.mhp.2019.01.006

Sherman, R. T., & Thompson, R. A. (2001). Athletes and disordered eating: Four major issues for the professional psychologist. *Professional Psychology*, *32*(1), 27–33. https://doi.org/10.1037/0735-7028.32.1.27

Sjogren, M. (2017). Anorexia nervosa and motivation for behavioral change-can it be enhanced. *Journal of Psychology and Clinical Psychiatry*, *8*(4), 00489.

Smith, B., & Sparkes, A. C. (2006). Narrative inquiry in psychology: Exploring the tensions within. *Qualitative Research in Psychology*, *3*(3), 169–192. https://doi.org/10.1191/1478088706qrp068oa

Stranberg, M., Slager, E., Spital, D., Coia, C., & Quatromoni, P. A. (2020). Athlete-specific treatment for eating disorders: Initial findings from the Walden GOALS program. *Journal of the Academy of Nutrition and Dietetics*, *120*(2), 183–189. https://doi.org/10.1016/j.jand.2019.07.019

Sturges, J. E., & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: A research note. *Qualitative Research*, *4*(1), 107–118. https://doi.org/10.1177/1468794104041110

Sundgot-Borgen, J., & Torstveit, M. K. (2004). Prevalence of eating disorders in elite athletes is higher than in the general population. *Clinical Journal of Sport Medicine*, *14*(1), 25–32.

Sundgot-Borgen, J., & Torstveit, M. K. (2010). Aspects of disordered eating continuum in elite high-intensity sports. *Scandinavian Journal of Medicine & Science in Sports*, *20*, 112–121. https://doi.org/10.1111/j.1600-0838.2010.01190.x

Toner, J. (2009). Small is not too small: Reflections concerning the validity of very small focus groups (VSFGs). *Qualitative Social Work*, *8*(2), 179–192. https://doi.org/10.1177/1473325009103374

Vincent, S., & O'Mahoney, J. (2018). *Critical realism and qualitative research: An introductory overview*. The Sage Handbook of Qualitative Business and Management Research Methods.

Wilson, G. T., & Zandberg, L. J. (2012). Cognitive-behavioral guided self-help for eating disorders: Effectiveness and scalability. *Clinical Psychology Review*, *32*(4), 343–357. https://doi.org/10.1016/j.cpr.2012.03.001

Wiltshire, G. (2018). A case for critical realism in the pursuit of interdisciplinarity and impact. *Qualitative Research in Sport, Exercise and Health*, *10*(5), 525–542. https://doi.org/10.1080/2159676X.2018.1467482