

What Is Known About Mindfulness and Self-Compassion Among Sport Coaches? A Scoping Review

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Mindfulness and self-compassion are two constructs positively related to well-being and mental health outside sport. Within sport, these constructs are emerging in research, yet the extant work has primarily been conducted with athlete samples. The aim of this scoping review was to provide a broad synthesis of the literature on mindfulness and self-compassion among coaches. Fourteen articles were included, 11 of them published 2019–2022. Of the 14 publications, the concepts studied were mindfulness ($n = 10$), self-compassion ($n = 2$), and a combination of both ($n = 2$). The samples were predominantly male coaches (68.7%), and most of the studies targeted coaches at the elite or competitive level. The most common area studied was developing and testing interventions and programs, followed by depicting relationships of mindfulness or self-compassion with desirable outcomes. This review significantly extends the current knowledge by illuminating critical issues in this rapidly moving area of research; the need for conceptual and contextual clarity of mindfulness and self-compassion; methodological considerations, such as measures that may allow reliable comparison across studies; and the need to further explore the potential benefits of mindfulness and self-compassion for coaches for sustainability and performance.


Keywords: elite sport, mental health, well-being, sustainability

Greater recognition of the importance of mental health in sport during the last decade has contributed to increased scholarly attention being paid to constructs that might help enhance good mental health and manage poor mental health (e.g., Gouttebarger et al., 2019; Poucher et al., 2021; Vella et al., 2022). Yet, the vast majority of extant research conducted in this area has been on athletes' mental health (see, for a review, Vella et al., 2021). Recently, scholars have emphasised the need to look beyond athletes to enhance knowledge of what contributes to mental health and well-being of other stakeholders within sport organisations, including coaches (e.g., Cropley et al., 2020; Simpson et al., 2021; Wagstaff, 2019). Indeed, since the coach is now viewed as a performer in their own right (Gould et al., 2002), a body of work has emerged illuminating the range of demands that coaches face. More specifically, a growing body of literature provides evidence that coaches face stressors from various domains such as organisational, contextual, inter- and intrapersonal level, and performance related (see Norris et al., 2017; Olusoga et al., 2019; Potts et al., 2021; Simpson et al., 2021) and that coaches across sports and on different levels in sports are challenged by stress and ultimately burnout which may lead to turnover (e.g., Bentzen et al., 2016;

Olusoga et al., 2019). Further, in a recent study, Åkesdotter et al. (2022) found depressive and anxiety disorders to be the most prevalent diagnoses among high-performance coaches who sought psychiatric treatment via self-referral. Given what we know from previous research with coaches, there remains a need for knowledge on constructs that have potential to support mental health, well-being, and sustainability in this profession.

Mindfulness and self-compassion are two emerging constructs within sport and applied practice that have, in populations outside sport, received substantial scholarly attention over the last decades with positive outcomes related to well-being and mental health (see, e.g., reviews on mindfulness, Creswell, 2017; self-compassion, Ferrari et al., 2019). Researchers have been exploring the application of mindfulness with athletes for more than 30 years (cf. Kabat-Zinn et al., 1985) and have recently devoted attention to the relationship between mindfulness, well-being, and performance among coaches (e.g., Longshore & Sachs, 2015; Lundqvist et al., 2018). More recently, literature on self-compassion in sport has grown rapidly, with a threefold increase in publications during the last 3 years (Cormier et al., 2023). Further, it is noteworthy that mindfulness and self-compassion have significant conceptual overlap. That is, the origins of both constructs are rooted in Buddhist philosophy (e.g., Brach, 2003), with mindfulness theories including self-compassion and the majority of researchers in sport conceptualizing mindfulness as one of three core elements of self-compassion (cf. Neff, 2003). Currently, there is no consensus regarding the definitions of mindfulness and self-compassion. Nevertheless, mindfulness is often referred to as “the awareness that emerges through paying attention, on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 1994, p. 4). Self-compassion has been conceptualised by Neff (2003) as having three components, namely, self-kindness, common humanity, and mindfulness. A somewhat different conceptualization rooted in

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clinical psychology define compassion as “a sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it” (Gilbert & Choden, 2013, p. 94).

Within sport, while the research dedicated to mindfulness and self-compassion shows promising results regarding well-being and performance, this work has primarily been conducted with athletes (see, for reviews, Cormier et al., 2023; Noetel et al., 2019). Taking the few exceptions, the rationale often provided by researchers for including coaches is because they are seen as influential agents for athletes’ incorporation of self-compassion (Cormier et al., 2023; Mosewich et al., 2019), not because coaches are viewed as performers in their own right (Gould et al., 2002). Given the large body of knowledge in populations outside sport, as well the promising findings with athletes in sport and the reported need to focus on coaches’ well-being, it seems timely to conduct a review of the literature on mindfulness and self-compassion with an explicit focus on coaches. Such a review could help guide research and applied work *beyond* athletes’ needs by recognising the salience of coach well-being, mental health, and performance.

A scoping review has the potential to summarise and disseminate research findings as well as to identify gaps in the literature (Levac et al., 2010; Peters et al., 2015). Scoping reviews have been highlighted as particularly useful in sport and exercise psychology to broadly synthesise emerging literature on a given topic (Sabiston et al., 2022). We deemed mindfulness and self-compassion as constructs that match this nascent status, especially within the coach population in sport. Hence, the primary aim of this scoping review was to provide a broad synthesis of the emerging literature on mindfulness and self-compassion among sport coaches, and the research question explored was: What is known from the existing literature about self-compassion and mindfulness among coaches in sport? In addition, we wanted to provide a foundation and guidance for future research and applied work drawing on the constructs of mindfulness and self-compassion targeting coaches.

Method

Research Design

Scoping reviews address broad research questions and include various study designs to support the aim of achieving in-depth and broad results by identifying all relevant literature (including gray literature). In this study, we used Arksey and O’Malley’s (2005) framework for scoping reviews as the foundation for our approach and we also followed best practice criteria for scoping reviews (Levac et al., 2010; Peters et al., 2015, 2020) with the following specific six stages: (1) identifying the research questions (see introduction); (2) identifying relevant studies; (3) study selection; (4) charting the data; (5) collating, summarizing, and reporting the results; and (6) consultation. Although the stages from 1 to 6 are presented as linear stages in this section, it was an iterative process where all authors collaborated and engaged in discussion as well as reached out to stakeholders for consultation during these steps. In undertaking this process, we aimed to first undertake a robust process of identifying relevant studies for inclusion and to then present a comprehensive synthesis of the literature.

Stages 2 and 3: Identify Relevant Studies and Selection Criteria

During the database search process, the iterative nature of the scoping study process was illuminated; hence, Stages 2 and 3 are presented in the same section to provide a better overview of the process

undertaken. To identify relevant records, we used a range of sources, including databases, reference lists, and expert consultation. The following five databases were searched to broadly identify possibly relevant documents: SPORTDiscus, APA PsychInfo, Web of Science, PubMed, and Google Scholar. The search strategies and terms were decided by the first author and an experienced university librarian, who thereafter discussed these with all other authors to finalise a version sent to stakeholders for consultation (see Stage 6). Following review, the search terms were further refined in collaboration with an experienced university librarian. Following the suggestion of Sabiston et al. (2022), the final search terms used in each database are presented (see [Supplementary Material S1](#) [available online]). The searches in SPORTDiscus, APA PsychInfo, Web of Science, and PubMed were made by two experienced university librarians in peer-review process (McGowan et al., 2016) as referred to in methodological guidance by Peters et al. (2020). The search in Google Scholar required modifications to the search strategies and terms due to the structure of the database, and after discussion with an experienced university librarian, the searches were made by the first author. The search was guided by the practice of reviewing the first 300 documents in each search in Google Scholar which has been used previously in scoping reviews in sport (Bentzen et al., 2020; Olusoga et al., 2019) based on indications that the suitability and relevance of the items after 300 to be poor. The literature search was conducted between April 30 and July 13, 2022 and was further updated June 1, 2023. The final search results were exported into EndNote, and de-duplication was conducted in accordance with the method offered by Bramer et al. (2016).

The initial inclusion criteria were broad to optimise finding all records that aimed to explore and study mindfulness and/or self-compassion among sport coaches and included peer-reviewed articles as well as gray literature (i.e., dissertations, commentaries, and book chapters). The literature screening process is presented in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart (Figure 1). The first step of the screening process of identified articles ($n = 1,079$) was performed by the first author and included screening title and abstract using the following predefined exclusion criteria: not sport related, not written in English, and not having coaches as participants or targeting coaches’ perceptions of themselves. As the next step ($n = 207$), all the authors discussed the screening process and decided to proceed by using the following exclusion criteria: not mentioning mindfulness or self-compassion in title, abstract, keywords, or in the “Method” section resulting in $n = 28$. It is worth noting that one included study targeted sport managers and almost half of the sample had multiple roles including being a coach (42.2%). In the next stage, all authors joined in the decision to screen the reference lists of the included articles in the current literature review list to ensure the inclusion of relevant literature, resulting in 11 more included items for full-text records screening ($n = 39$). The screening process was performed by the first author in consultation with the second author. The first and second authors then thoroughly read all full-text articles and assessed them for eligibility and engaged in discussions, followed by further reflexive processes with the third and fourth authors to reach the stages described in the PRISMA flow chart (Figure 1).

The remaining 36 records were categorised in two separate reference lists, namely: “Included” ($n = 14$), which consisted only of peer-reviewed articles, and the other reference list, a self-explanatory “gray literature” list ($n = 22$). The decision to keep a reference list for gray literature was to provide a comprehensive illustration of the publications in this area. More specifically, the gray literature included publications that were not initially original articles

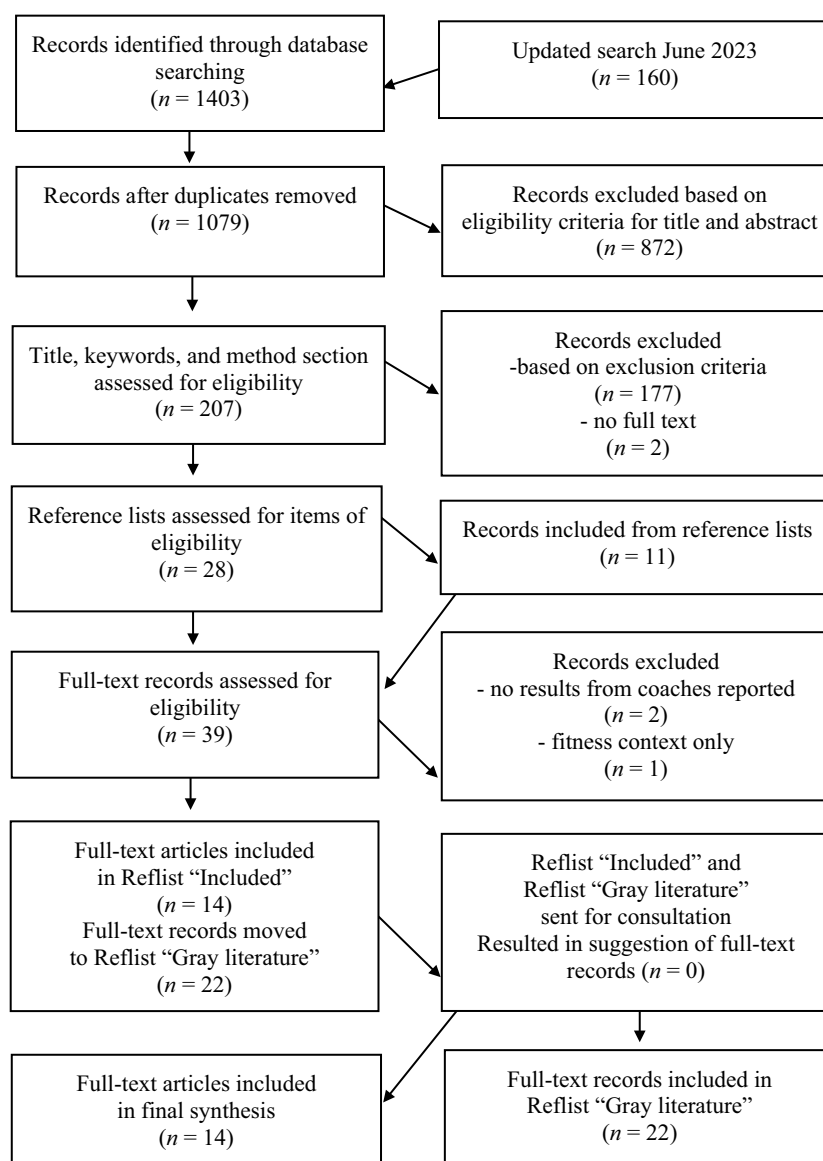


Figure 1 — Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram showing the flow of information through the review process.

(e.g., books, conference presentations), reviews that summarised the publications in the field, doctoral dissertations, and commentaries (see [Supplementary Material S2](#) [available online] for “Gray literature” reference list). To further ensure that a robust search had been undertaken, the two reference lists; “Included” and “Gray literature” were sent to subject experts (see “Stage 6: Consultation” section). These experts were asked to review the files and offer a commentary on their completeness, identifying any possible missing records. This process yielded no missing records, and we interpreted this as supportive of our search strategy and inclusion criteria.

Stages 4 and 5: Charting the Data and Collating, Summarizing, and Reporting the Data

The data from the reference list “Included” was charted in two tables, making a distinction between those that we defined as conceptual (Table 1, $n = 3$) or empirical (Table 2; $n = 11$) articles. All the authors engaged in an iterative process on how to present the key findings and

contributions of the included studies to provide the most insightful overview of the current literature on mindfulness and self-compassion among coaches, a process that included two group meetings on site. At the first meeting, there was a process of discussions among the authors, guided by Arksey and O’Malley’s (2005) recommendation of charting a mixture of general and specific information, on which variables from the studies to report in the pursuit of answering the research questions and to provide a comprehensive overview of the literature included. For the conceptual articles, this resulted in extracting: aim, level, target population, inclusion of gender perspective, inclusion of paraspport perspective, theoretical construct, and a brief overview of the main contributions. For the empirical articles, the following parts were extracted: aim, sample size, gender, level, sport, country, study approach, design, measures, theoretical construct, and a brief overview of the key findings. Further, a descriptive qualitative summary of the key findings and contributions from both the conceptual and empirical articles was included. More specifically, we conducted a basic coding of extracted data from the key findings

Table 1 Conceptual Papers (n = 3)

Reference	Aim	Level and target population	Inclusion of gender perspective	Inclusion of parasport perspective	Theoretical construct	Main contributions
Baltzell et al. (2014)	Provide a summary and discussion of a workshop aimed at giving a brief overview of the meaning of and potential benefits of Mf-based strategies for sport consultants working with coaches	Not reported	No	No	Mf	Conceptually suggest how Mf is foundational to optimised performance by the acceptance and/or tolerance of aversive emotions, thus creating the ability to focus on task relevant cues Coach- and context-specific Mf practice
Hägglund et al. (2019)	Discuss and propose a definition of the upside of vulnerability in sports	High-performance setting	No	No	Mf and SC	Illuminating awareness of vulnerability as a facilitator for mental health and sustainability
Kee (2019)	Present the relevance of Mf for sports coaches implementing a nonlinear pedagogy	Not reported	No	No	Mf	Mf skills may support coaches develop sensitivity towards the dynamics of the movement system, be open about impending variability and creativity in learner's behaviour, and be accepting toward learners for who they are

Note. Mf = mindfulness; SC = self-compassion.

and contributions into categories (Peters et al., 2020). These categories were summarised by the first author and then critically reviewed and discussed among the remaining authors. In accordance with the guidelines used in this study (Levac et al., 2010; Peters et al., 2015, 2020), the results are discussed in relation the purpose of this scoping review and the implications for future research and practice. It is important to note that, in line with these guidelines and the fundamental aims of scoping reviews (cf. Levac et al., 2010; Peters et al., 2015), no assessment of quality was undertaken of the included studies.

Stage 6: Consultation

At two different stages of the review process, we the authors decided to include independent experts. For consultation on search terms, four experts were involved: sports psychologist at a European national sport federation ($n=1$), high-performance sport director at a European national confederation ($n=1$), coach and leader development at a European national Soccer Federation ($n=1$), and expert researcher in the field of coach development from a non-European country ($n=1$). For consultation on the reference lists (both "Included" and "Gray literature"), two senior researchers in the field of coach well-being and performance from a European country were involved.

Results

The 14 peer-reviewed articles that met the inclusion criteria and were analysed in this scoping review are summarised in Tables 1 and 2. Three articles were categorised as conceptual articles (see Table 1) and 11 articles as empirical studies (Table 2). The articles were published between 2014 and 2022, with 11 of them being published 2019–2022.

Aim of the Studies

The most typical aim among the 11 empirical studies ($n=6$) included in this scoping review was to explore, develop, and

evaluate interventions and programs (Baltzell et al., 2015; Hägglund et al., 2022; Longshore & Sachs, 2015; Lundqvist et al., 2018; Pineau et al., 2019), and to explore implementation, benefits, and hindrances of general mindfulness practice (Aaron et al., 2020). Another four empirical studies aimed at depicting relationships of mindfulness or self-compassion with other constructs, for example, stress, burnout, rumination, and social support (Ackeret et al., 2022; Goodman & Howard, 2022; Lee, 2020; Pawsey et al., 2021). Finally, one empirical study aimed to validate a new scale to measure compassion among coaches (Oliveira et al., 2022). The three conceptual papers included in this review had varied aims; provide mindfulness-based strategies for sport consultants working with coaches (Baltzell et al., 2014) discussing and proposing an upside of vulnerability in sport (Hägglund et al., 2019), and arguing for the relevance of mindfulness for adopting nonlinear pedagogy (Kee, 2019). A summary of the aims of the studies can be found in Tables 1 and 2.

Theoretical Constructs

Most of the included publications studied mindfulness (10 of 14, i.e., 71.4%), two studies explored self-compassion (14.3%) and two studies combined the constructs of mindfulness and self-compassion (14.3%). Mindfulness was predominantly based upon the work of Kabat-Zinn (1994) who defined mindfulness as "the awareness that emerges through paying attention, on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment" (p. 4; 10 out of 14 studies; Aaron et al., 2020; Baltzell et al., 2014, 2015; Goodman & Howard, 2022; Hägglund et al., 2019, 2022; Kee, 2019; Longshore & Sachs, 2015; Lundqvist et al., 2018; Pineau et al., 2019). Two studies (Lee, 2020; Pawsey et al., 2021) drew on the work by Brown and Ryan (2003) where mindfulness was defined as "a receptive attention to and awareness of present events and experiences" (p. 212). In two out of the four studies that included self-compassion (Ackeret et al., 2022; Hägglund et al., 2019), the construct was conceptualised according to Neff's (2003) three-component model of self-compassion. Further, in the Mindfulness Meditation Training for Sport

Table 2 Empirical Articles (n = 11) in Chronological Order

Reference	Aim ^a	Sample size and gender	Level, sport, and country	Study approach and design	Measures ^b	Theoretical construct	Key findings
Baltzell et al. (2015)	Explore and report the coaches' perception regarding the value of the MMTS to themselves and to their athletes, and to offer suggestions to improve the design and delivery of the MMTS intervention	F = 3	Division I Varsity soccer United States	Qual Intervention	n/a	Mf and SC	Enhanced emotional and self-awareness including a positively changed relationship to aversive emotions, in coaching and in lives outside sports Seeing athlete benefits Improved coach-athlete relationship
Longshore and Sachs (2015)	Determine the efficacy of the MTC program by evaluating the effect on coaches' Mf, emotional stability, and anxiety as well as to evaluate the MTC program's mechanics and impact	20 F = 12 M = 8	Divisions I 12 different sports United States	MM Intervention Longitudinal	Mindful Attention Awareness Scale; Toronto Mindfulness Scale	Mf	Decreased anxiety Greater emotional stability Positive impact on Mf; anxiety and stress; emotions (control, stability, awareness and expression); coaching, work-life balance, and in relations, both as coaches and in personal life
Lundqvist et al. (2018)	Evaluation of a Mf intervention with Paralympic leaders prior to the Paralympics	16 F = 7 M = 9	Paralympic leaders Parasports ^c Sweden/Norway	Quan Intervention Longitudinal	Mindful Attention Awareness Scale	Mf	Lower rumination Decreased perceived stress Increased psychological flexibility Support for web-based Mf training
Pineau et al. (2019)	A case illustration of a lacrosse team who received MSPE following a difficult season with a losing record, and their journey over 2 years, to winning a championship	F = 1 (and a team of athletes)	Division III Lacrosse Country not reported	MM Intervention Case study	Mindful Inventory Scale for Sport	Mf	Coach engagement enhanced athletes' participation and discussions Increased effectiveness of Mf integration in team's operations
Aaron et al. (2020)	Explore the implementation of Mf practices across a collegiate athletic department along with athletes', coaches', and staffs' perceived benefits and hindrances of Mf	Four (two sport coaches; one athletic trainer; one strength and conditioning) F = 1 M = 3	Division 1 (university) Sports not reported United States	Qual Case study (coaches included in qualitative part of this MM study)	n/a	Mf	Not sufficient data to report ^d
Lee (2020)	To propose and test a conceptual model for depicting relationships between Mf, perceived stress, and different goal orientations	478 F = 13% M = 87%	High school Sports not reported United States	Quan Cross-sectional	Short version of Mindful Attention Awareness Scale	Mf	Mf negatively associated with perceived stress and positively associated with development goal orientation Perceived stress positively associated with winning goal orientation

(continued)

Table 2 (continued)

Reference	Aim ^a	Sample size and gender	Level, sport, and country	Study approach and design	Measures ^b	Theoretical construct	Key findings
Pawsey et al. (2021)	Examine the role of Mf as an antidote to rumination and facilitator of better recovery	46 F = 16 M = 30	Level not reported Various sports New Zealand	Quan Longitudinal	Mindful Attention Awareness Scale, state version	Mf	Increases in daily Mf relative to coaches' individual mean levels were predictive of higher levels of recovery-related variables (energy and mood) through mechanisms of reduced rumination and improved sleep
Ackeret et al. (2022)	Examine stability and change in coach burnout, SC, and social support	422 F = 87 M = 335	Competitive junior and adult; recreational; 57 ind. and team sports Switzerland	Quan Longitudinal	Self-Compassion Scale Short Form	SC	SC showed to be a stable construct over 6 months SC negatively related to burnout SC and social support positively related
Goodman and Howard (2022)	To investigate athletic trainers' use of Mf practices and their perceptions of the importance of Mf practices for self-care and as a tool to achieve optimal outcomes in patient or client care	547 F = 280 M = 263 Other = 4	Clinical; collegiate, emerging; secondary school; professional Sports not reported United States	Quan Cross-sectional	Questionnaire developed by first author	Mf	Mf practice perceived as more important for self-care than client care Inconsistency between perceived importance of Mf and the use of Mf
Hägglund et al. (2022)	Develop a novel method that was theoretically grounded and usable for HPCs in their daily lives based on an 8-week brief mindful self-reflection intervention	18 F = 11 M = 7	9 = international junior level 9 = national team senior level Athletics; figure skating Sweden	Qual Intervention Longitudinal Process evaluation	n/a	Mf	Method with high fidelity and reach Perceived value in coach and private life 6- and 12-month follow-up with lasting behaviour changes associated with sustainability and well-being (self-awareness, SC, helpful perspective on vulnerability, and help-seeking behaviour)
Oliveira et al. (2022)	Validate the CCS-CV which may help psychologists to identify features of the coaches that could be improved and/or changed for the benefit of both coaches and athletes	483 F = 153 M = 330	Mix of competitive level; regional to international Mix of ind. and team sports Portugal	Quan Cross-sectional	CCS-CV Compassionate Engagement and Action Scales	SC	CCS-CV is a reliable measure of compassion directed towards athletes CCS-CV positively associated with SC and quality of life among coaches SC positively associated with quality of life among coaches

Note. Mf = mindfulness; SC = self-compassion; MMTC = Mindfulness Meditation Training for Sport; MTC = Mindfulness Training for Coaches; MSPE = Mindful Sport Performance Enhancement; CCS-CV = Compassionate Coach Scale-Coaches Version; F = female; M = male; n/a = not applicable; MM = mixed method; Quan = quantitative; Qual = qualitative; ind. = individual; HPCs = high-performance coaches.

^aMain purpose edited to reflect relevance of this review, sole focus on coaches. ^bMeasures of relevance for this review. ^cNo further information than parasports. ^dIntegrated results from coaches, staff, and athletes when, for example, stating "four participants experienced . . ." making it difficult to know what attributes to coaches except one explicit quote from coach.

(MMTS) programme (Baltzell et al., 2015), the self-compassion component drew on compassionate mind training which is a part of compassion focused therapy (CFT), which also was the theoretical framework in the study by Oliveira et al. (2022). Within CFT, compassion is defined as "a sensitivity to suffering in self and

others with a commitment to try to alleviate and prevent it" (Gilbert & Choden, 2013, p. 94), and self-compassion is seen as one of three flows of compassion (the other two flows being compassion we can feel for others and compassion we feel from others to ourselves; Gilbert, 2014).

Design of Studies

The articles included in the review were predominantly empirical studies (11 of 14, i.e., 78.6%). A summary of the study design characteristics can be found in the [Supplementary Table S1](#) (available online). Regarding the empirical studies, six of them had a quantitative approach (54.5%) that all used scales and/or questionnaires for data collection. More specifically, three of the quantitative studies had a longitudinal design (Ackeret et al., 2022; Lundqvist et al., 2018; Pawsey et al., 2021) and three of the studies used cross-sectional design (Goodman & Howard, 2022; Lee, 2020; Oliveira et al., 2022). Two of the empirical studies were designed as mixed-method studies where one used individual interviews and questionnaires for data collection (Longshore & Sachs, 2015), while the other reported the questionnaires used but did not describe how the qualitative data was collected (Pineau et al., 2019). Further, three of the studies used a qualitative approach, each with interviews as the primary method of data collection, namely individual interviews ($n = 2$; Aaron et al., 2020; Baltzell et al., 2015) and focus group interviews ($n = 1$; Hägglund et al., 2022).

The focus of developing and testing sport-specific mindfulness interventions and training programmes was prominent in the available literature. To illustrate, in one study, researchers explored the implementation of mindfulness practice as part of sport psychology practice but did not follow a specified program or timeline (Aaron et al., 2020), whereas five studies reported using specific intervention programmes. These five studies all used different programs or interventions (MMTS [Baltzell et al., 2015]; Mindfulness Training for Coaches [MTC] [Longshore & Sachs, 2015]; mindfulness intervention [Lundqvist et al., 2018]; Mindful Sport Performance Enhancement [Pineau et al., 2019]; and brief mindful self-reflection intervention [Hägglund et al., 2022]). All programs were based entirely on mindfulness except the MMTS, which is a mindfulness meditation intervention infused with a compassionate approach and the studies were conducted either in elite population ($n = 4$) or competitive level ($n = 1$; Pineau et al., 2019). The interventions were either 6 weeks ($n = 3$) or 8 weeks ($n = 2$; Hägglund et al., 2022; Lundqvist et al., 2018).

Measures

Out of eight studies using questionnaires, seven of them used solely preexisting scales to measure mindfulness and self-compassion: Mindful Awareness Attention Scale (MAAS) by Brown and Ryan (2003) (Longshore & Sachs, 2015; Lundqvist et al., 2018); a five-item state version of MAAS by Brown and Ryan (2003) (Pawsey et al., 2021); a five-item short version of MAAS by Osman et al. (2016) (Lee, 2020); Toronto Mindfulness Scale by Lau et al. (2006) (Longshore & Sachs, 2015); Mindful Inventory Scale for Sport by Thienot et al. (2014) (Pineau et al., 2019); Self-Compassion Scale Short Form by Raes et al. (2011) (Ackeret et al., 2022); and Compassionate Engagement and Action Scales by Gilbert et al. (2017) (Oliveira et al., 2022). Finally, in one study, the questionnaire was developed by the lead author to investigate athletic trainers' perceptions of mindfulness practices and the frequency of their use for self-care and client care (Goodman & Howard, 2022).

Target Population

Most of the empirical studies targeted coaches only (81.8%), while two of the intervention studies targeted both coaches and athletes (Aaron et al., 2020; Pineau et al., 2019). Importantly, these two studies did not differentiate in terms of the potential impact of the

mindfulness practice between coaches and athletes. To illustrate, Aaron et al. (2020) included coaches' perceptions, but the authors tended to focus on athletes' perceived benefits, with coaches reflecting from the athletes' perspective. In a similar way, it is hard to distinguish if the coach was included to benefit from mindfulness herself or solely for her athletes in the case study by Pineau et al. (2019). Thus, results in these two studies have been presented in a way that it makes it impossible to determine the outcomes for coaches themselves beyond the reported benefits for their athletes. Additionally, Baltzell et al. (2015) targeted coaches and reported their experiences and benefits of the intervention, but also as of their athletes. Moreover, practical recommendations to improve the MMTS intervention focused exclusively on athletes.

Demographic Characteristics of the Empirical Studies

In the 11 empirical studies, basic information was provided relating to the number of participants, gender, level, country, and sport (see [Supplementary Table S2](#) [available online], for a detailed summary). To elaborate, the number of participants ranged from small ($n = 1$) to large ($n = 547$), with three studies (27.3%) having one to four participants (Aaron et al., 2020; Baltzell et al., 2015; Pineau et al., 2019), four of the studies (36.4%) had 10–50 participants (Hägglund et al., 2022; Longshore & Sachs, 2015; Lundqvist et al., 2018; Pawsey et al., 2021), and four studies included more than 400 participants (Ackeret et al., 2022; Goodman & Howard, 2022; Lee, 2020; Oliveira et al., 2022). The samples were predominantly male (68.7%) and the majority of the empirical studies targeted coaches at elite level (45.5%; Aaron et al., 2020; Baltzell et al., 2015; Hägglund et al., 2022; Longshore & Sachs, 2015; Lundqvist et al., 2018) or competitive level (27.3%; Lee, 2020; Oliveira et al., 2022; Pineau et al., 2019). All studies were conducted in Westernised countries, dominated by samples located in United States (41.7%; Aaron et al., 2020; Baltzell et al., 2015; Goodman & Howard, 2022; Lee, 2020; Longshore & Sachs, 2015) and Sweden (16.7%; Hägglund et al., 2022; Lundqvist et al., 2018). Finally, three of the studies reported sport samples: soccer (Baltzell et al., 2015), lacrosse (Pineau et al., 2019), and athletics and figure skating (Hägglund et al., 2022). One study focused on parasports (Lundqvist et al., 2018), but without further specifying sports. Four studies reported sampling a mix of sports (33.3%) and three studies did not report type of sport.

Key Findings and Contributions

Following the coding process of the key findings and contributions from the 14 peer-review articles included in this scoping review, two main categories were generated: “Mental health consequences” and “Relational benefits.”

Mental Health Consequences

Mindfulness was shown by Lee (2020) to be negatively correlated with perceived stress, and Pawsey et al. (2021) noted that higher daily levels of mindfulness, relative to coaches' individual mean levels, predicted less ruminative thoughts at night, better sleep quality, as well as higher ratings of mood and energy the following day. Similarly, lower rumination (Lundqvist et al., 2018) and reduced stress (Longshore & Sachs, 2015; Lundqvist et al., 2018) were observed in response to mindfulness interventions. Other mental health consequences such as improved work–life balance, decreased anxiety (Longshore & Sachs, 2015), greater

emotional awareness and emotional stability (Baltzell et al., 2015; Longshore & Sachs, 2015), and increased psychological flexibility (Lundqvist et al., 2018) have also been associated with mindfulness interventions. Researchers have also noted positive effects for coaches' personal lives by greater self-awareness and being able to handle difficult situations or feelings (Baltzell et al., 2015; Hägglund et al., 2022). Further, in a mindful self-reflection intervention, Hägglund et al. (2022) reported that coaches perceived fostering healthy perspectives on vulnerability, increased help-seeking, and self-compassionate behaviour.

In a cross-sectional study, Goodman and Howard (2022) reported that participants perceived mindfulness practice as important for self-care, although the participants only occasionally practiced mindfulness. Hence, these authors highlighted the lack of implementation of mindfulness programs and practices. Notably, self-compassion as a construct was investigated in one study not including an intervention by Akeret et al. (2022) and was shown to be negatively correlated to burnout and to be a stable construct over 6 months among coaches. In their conclusion, the authors identified several key areas for future research, including how self-compassion interventions may impact self-compassion and possibly reduce burnout among coaches. In line with these findings, Oliveira et al. (2022) found that self-compassion among coaches was positively associated with quality of life, and Hägglund et al. (2019) argued that mindfulness and self-compassion may support increased awareness of vulnerability, which may facilitate mental health and sustainability in high-performance settings.

Relational Benefits

The constructs of self-compassion and mindfulness have been shown to have positive impact on various relational variables. Akeret et al. (2022) noted that self-compassion and social support were positively correlated, and based on preliminary research it is suggested that when coaches engage in compassion toward their athletes, it is positively associated to self-compassion among coaches themselves (Oliveira et al., 2022). In line with this, outcomes from mindfulness interventions show positive impact on the coach–athlete relationship. Longshore and Sachs (2015) reported a mindfulness intervention showing that coaches perceived positive influence on focus, approach to problems, behaviours and attitudes related to performance, and in the interaction with their athletes. Moreover, Baltzell et al. (2014) argued that mindfulness-based strategies to accept and/or tolerate aversive emotions are foundational for optimal performance for coaches. Similarly, following interventions (MMTS [Baltzell et al., 2015] and MTC [Longshore & Sachs, 2015]), coaches have reported positive impact on their awareness of emotions and reactions, including positively changed relationship to aversive emotions in coaching situations with athletes, thus finding ways of interacting with athletes that supported the coach–athlete relationship. In line with these findings, coaches perceived positive spill over effects, such as being better at facilitating an environment supportive of learning, development, and performance during and after engaging in mindful self-reflection (Hägglund et al., 2022). With the aim of supporting positive development in youth sport, the construct of mindfulness was investigated and showed to be positively associated with a development goal orientation among sport leaders versus a winning goal orientation which in turn was positively associated to perceived stress (Lee, 2020). Finally, Kee (2019) argued that mindfulness skills among coaches may support them to implement a nonlinear pedagogy, and in turn, this could enable them to gain

deeper insight to their learners' behaviour by being more open to learner variability and creativity.

Discussion

The aim of this scoping review was to provide a broad synthesis of the emerging literature on mindfulness and self-compassion among sport coaches. Strikingly, the results illustrate the swift emergence of this research area with 11 out of the 14 articles being published since 2019. Further, this scoping review sheds light on the potential benefits of mindfulness and self-compassion for coaches in terms of positive mental health consequences and relational benefits, with findings mainly based on coaches at competitive or elite level. Perhaps most importantly, this scoping review significantly extends the extant literature by illuminating critical issues in this rapidly moving area of research, such as a need for conceptual and contextual clarity of mindfulness and self-compassion and methodological considerations.

The Need for Conceptual and Contextual Clarity of Mindfulness and Self-Compassion

This scoping review reveals not only a lack of conceptual and contextual clarity, but also a critical discussion about their absence. In this review, most of the included articles studied mindfulness rather than self-compassion, which mirrors the research on these two constructs in nonsport domains (see, e.g., reviews on mindfulness [Creswell, 2017]; self-compassion [Ferrari et al., 2019]). Yet, the conceptualization of mindfulness and self-compassion varied across the studies included in this scoping review. Interestingly, despite the nascent phase of this field, most of the empirical studies included here focused on intervention and programs (primarily based on mindfulness). It can be argued that the sport-based mindfulness and self-compassion literature have advanced too quickly into an intervention-focused research phase without an adequate contextually nuanced theoretical foundation. Consequently, the literature reflects a body of work comprised of diverse definitions, theoretical underpinnings, and applications of both mindfulness and self-compassion—using conceptual foundations developed outside of sport, seemingly, with a limited critical discussion of their suitability or adaptation for context. Moreover, mindfulness and self-compassion have been used to inform psychotherapeutic methods and intervention programmes within cognitive behaviour therapy, such as mindfulness-based stress reduction, mindfulness-based cognitive therapy, acceptance and commitment therapy, and dialectical behaviour therapy (see, for an overview, Brown et al., 2007), and CFT (Gilbert, 2014). The mindful self-compassion program (Neff & Germer, 2013) was developed as a hybrid approach for use with both the general public to enhance well-being and clinical populations. Taken together, it is noteworthy that mindfulness and self-compassion programs are applied both in clinical and nonclinical populations to enhance well-being and the suitability and nuances of the needs of these populations, and the necessity for adaptation of interventions into sports requires attention.

Based on the results of this scoping review, we argue that there is a need for robust conceptual work and theoretical development of the mindfulness and self-compassion constructs within the sport context. In this pursuit, it is important to be cognizant of several key considerations. Most of the work included in this review is dedicated to mindfulness, and yet there exists substantial conceptual diversity. In addition, although fewer studies have focused on self-compassion, conceptual diversity still exists. In their recent

review, Cormier et al. (2023) concluded that there exists “widespread acceptance of Neff’s three-component model of self-compassion” (p. 25), but they still noted a need for theoretical development of self-compassion in sport. We agree with this need and encourage researchers to remain open to relevant overlapping research within and outside of sport (e.g., CFT; in sport, Walton et al., 2022; Wood & Butler-Coyne, 2023). More specifically, CFT is becoming an increasingly popular therapeutic approach in clinical practice with evidence for a range of mental health problems (Craig et al., 2020) which have also received growing attention in sport. Thus, we believe that there is a need to explore various conceptualizations to optimise future development of context-specific self-compassion in sport targeting well-being, mental health problems, and performance.

Scholars must be aware of the interrelatedness of the two constructs under review (cf. Cormier et al., 2023). To elaborate, mindfulness is regarded as one of three components of self-compassion as conceptualised by Neff (2003), but also, mindfulness theories include self-compassion, such as loving-kindness meditations (e.g., Brach, 2003). Drawing on the present findings, it is also important for scholars to gain a greater understanding of how these constructs are understood in relation to the sport coach while acknowledging the sharp contrast between the culture of sport and the original contexts in which these constructs were developed. That is, competitive sport is characterised by striving, performance assessment, and goal attainment in comparison to the traditional emphasis on nonstriving, mental health, and well-being within mindfulness and self-compassion practice (Brown et al., 2007; Neff, 2003). While the traditional rationale for mindfulness and self-compassion work in nonsport contexts has been the promotion of well-being, in the included studies in this review, researchers from sport have also noted the potential value of these constructs for performance outcomes. Nevertheless, given the interrelated nature of well-being and performance in sport, researchers should explore the complex—and poorly understood—relationship between mindfulness and self-compassion and well-being and performance. It follows that both contextual nuance and conceptual clarity will help ensure that there is no uncritical transference of these constructs into the context of high-performance sport.

Methodological Considerations

Measurements

In brief, the measures used in the included literature varied considerably in their assessment approach of mindfulness, and in the two studies with a quantitative approach to measuring self-compassion, different measures were used, and these were aligned with different theories of self-compassion. The most frequently used measure of mindfulness was the MAAS that target one global dispositional dimension; open awareness and attention of the present, either with the original 15-item (Brown & Ryan, 2003) or with different adapted five-item versions (Brown & Ryan, 2003; Osman et al., 2016). The measure of Toronto Mindfulness Scale represents a different approach, developed as a state measure with an aim to better evaluate outcomes of mindfulness-based interventions, and targets two dimensions of mindfulness—curiosity and decentring (Lau et al., 2006). Moreover, the measure of Mindful Inventory Scale for Sport was developed to be context specific to sport performance and target athletes’ use of mindfulness and self-regulatory skills when facing disruptive stimuli and aimed to assess three dimensions—awareness, nonjudgmental attitude, and refocusing (Thienot et al., 2014). It is worth noting that these findings

mirror the inconsistency in measurements that target athletes with mindfulness interventions (Solé, 2020), and although beyond the scope of the present work, the authors of reviews of mindfulness measures outside of sport have noted similar concerns (Sauer et al., 2013). Finally, the use of the Self-Compassion Scale Short Form (Raes et al., 2011) further increases measurement confusion as it measures mindfulness as one of the core elements of self-compassion, that is, exclusively as the ability to pay attention and remain in awareness when suffering, which is a more limited scope of mindfulness than other conceptualizations. Altogether, these findings illustrate an urgent need for conceptual clarity that must be the foundation of psychometrically sound measures that might allow reliable evaluation of interventions and comparison across studies.

Interventions

The findings of this scoping review offer initial support for four mindfulness-based interventions, and each has strengths and limitations. More specifically, these interventions were the MMTS (Baltzell et al., 2015), MTC (Longshore & Sachs, 2015), a web-based mindfulness training program (Lundqvist et al., 2018), and a brief mindful self-reflection intervention (Hägglund et al., 2022). The main challenge identified for future applied research in this area related to the need for conceptual and contextual clarity as well as feasibility and conducting intervention research with both scientific rigor and ecological validity. Moreover, it has been argued (see Burden et al., 2021) that the elite sport context does not present the best fit for traditional experimental designs given that such populations are small, nonrepresentative, and because conditions may limit the delivery of interventions. Thus, researchers must consider that elite coaches are a unique population who operate in a highly complex context. It is likely that intervention outcomes will be impacted by the volume and quality of psychoeducation provided, the experience and competence of the practitioner, and the engagement of the participant. Taken together, we advocate the need to increase the quality of intervention studies through more robust research designs, more careful alignment of design–methods–measures–sample–analysis processes, and for researchers to pay more attention to participant adherence and fidelity to programs (e.g., Saunders et al., 2005) as well as to consider the implementation of programs and interventions (Damschroder et al., 2009).

Target Population

In this scoping review, a strong focus on coaches at the elite level by researchers was evident, which seems to be a response to research that has identified stress and well-being challenges, especially among high-performance coaches (Bentzen et al., 2016; Norris et al., 2017). Nevertheless, it is important to note that in half of the intervention studies included in this review, it was vague who benefited from the intervention. While there is value in understanding how coach mindfulness may benefit athletes with whom they work, it is essential that researchers are clear and consistent about *who* the intervention is intended to benefit. Specifically, we perceive a range of valuable lines of inquiry, dedicated to understanding how coach-facing interventions can benefit coaches (i.e., direct), athletes (i.e., indirect), or both (i.e., indirect, and direct). Moreover, we acknowledge that any research that targets coaches will often trigger the question, “How will it affect the athletes?” and the complexity and interdependency of the coach–athlete relationship must be acknowledged in this line of intervention work. This scoping review shows that mindfulness interventions have the potential to

contribute positively to athletes through improved coaching, and that coach self-compassion is positively associated with coaches showing compassion to their athletes. In addition, Cormier et al. (2023) argued that coaches' role modelling self-compassion may be important for the development of athlete self-compassion. In sum, there is still a need to develop robust coach interventions for their own benefit as performers as well as interventions that take the coach–athlete relationship into consideration.

The Benefits of Mindfulness and Self-Compassion

There is emerging evidence to suggest that mindfulness and self-compassion can support the well-being and mental health of coaches. Indeed, a range of mental health-related benefits have been reported, including reduced stress, anxiety and rumination, and enhanced self-awareness and quality of sleep and life. These collective observations show the potential value of exploring and examining the impact of these constructs for promoting sustainability among coaches. The findings of the present review also illuminate the implicit spill over effects for coach performance. Specifically, increased self-awareness and emotional awareness among the coaches had a positive impact on the coach–athlete relationship. In this context, it is worth illuminating that self-compassion is a skill to handle adversity and suffering in life (Neff, 2003), which in the high-performance context may be about the coach's own struggles (e.g., burnout, depression, and anxiety) and may also be related to when their athletes are struggling. In addition, sport is characterised by hypermasculine culture and displaying any kind of vulnerability is often considered a weakness (Hägglund et al., 2019), and in line with the mental health movement in sports (Vella et al., 2021), coaches remain an important population to target. Future work might consider if both mindfulness and self-compassion skills are mutually beneficial to factors relating to interpersonal care between coach and athletes. More specifically, by providing the coach with skills to handle hardship, there is the potential to foster and develop of more psychologically safe performance environments (cf. Vella et al., 2022).

Limitations

We note several limitations of this work. First, within the literature, coaches are inadequately defined, and in turn, scholars have set broad inclusion criteria including roles that might not be a "typical" coach, such as athletic trainers, which may affect the results reported. Second, we included only articles in English, and given that both mindfulness and self-compassion stem from Buddhist philosophy (e.g., Brach, 2003) originated from Asia, there is some possibility that we have missed studies in other languages. Finally, this scoping review contains a relatively small sample of articles in what can be best described as a fast-emerging field. In some areas of this work, the strength of the body of evidence is limited due to the nascency of the work. Yet despite this, the review is timely to enhance knowledge synthesis and shape the future of mindfulness and self-compassion research and practice targeting coaches.

Implications for Research and Practice

This scoping review showcases promising findings regarding the benefits of mindfulness and self-compassion for coaches. As such, we encourage scholars to continue to advance theoretical knowledge and develop interventions that may enhance coach well-being and performance. Specifically, researchers should explore the interdependent and complex relationship between mindfulness and

self-compassion in relation to the whole spectrum of mental health and performance with careful consideration of the specific context of sport. It is also pivotal that researchers reduce the risk that coaches are lost within the literature by clearly stating the target of and intended beneficiaries of interventions, better incorporating performance-related foci in research, and exploring the benefits that can come from treating coaches as performers. Moreover, given the existence of state and trait measures of mindfulness and self-compassion, researchers might also benefit from studying the association between these constructs and personal characteristics in sport to better understand the development of effective interventions. Nevertheless, we reiterate that there exists conceptual, measurement, design, and intervention issues resulting in inconsistency within and across studies in the extant literature. Ultimately, until greater consensus and consistency is reached, researchers, and in turn, practitioners, will be comparing apples and pears and we urge scientist-practitioners to move toward integration and consistency by seeking a consensual context-specific model, measure, and programme of mindfulness and self-compassion.

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