Examining the Role of Mindfulness in Stress Management: Interviews with Sports Coaches

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Despite working in a demanding, high-pressure environment and being accountable for their athletes' performance, health, and well-being, sports coaches have not received the same level of attention as their athletes in the research literature (Carson et al., 2018). Recent research conducted by Pilkington et al. (2022) revealed that 40% of elite-level Olympic coaches reported mental health issues that would be best treated by a professional, yet only 6% of these coaches sought mental health support. In addition, Pilkington et al. (2022) also mentioned 14% of the elite-level coaches reported high to extremely high psychological distress, and rather than seek support for the significant issues they were facing – such as dissatisfaction with social support and life balance – the researchers discovered that coaches frequently turn to unhealthy coping mechanisms that are more socially acceptable, such as alcohol consumption.

Pearson & Baghurst (2020), wrote that "the majority of coaches have never received instruction or training on how to manage stress properly" (p. 134). Mindfulness (Norris et al., 2017) has been suggested as potential coping skill for coaches. A growing body of research demonstrates the efficacy of mindfulness interventions for improving anxiety (Fumero et al., 2020; Song & Lindquist, 2015), reducing stress (Goyal et al., 2014), decreasing depression and fatigue (Simpson et al., 2023), improving sleep and reducing rumination (Pawsey et al., 2021), and decreasing pain (Creswell, 2017). Engaging in mindfulness practices can assist sports coaches in managing their stress and serve as a means to replace certain informal and avoidance coping mechanisms they may rely on. Although there is limited research on the mindfulness practices of sports coaches across different levels of sports, the most significant observation is that none of the stress reduction interventions conducted with sports coaches involved the participation of coaches in developing the intervention. In addition, the majority of stress reduction interventions have been conducted on athlete samples (Longshore & Sachs, 2015; Lundqvist et al., 2018; Noetel et al., 2019), presenting an opportunity to contribute to a new field of research by investigating mindfulness and stress reduction for sports coaches.

The aim of the present study is to address the limitations of the existing literature on mindfulness-based interventions for sports coaches by (1) examining sports coaches' existing stress-coping strategies and (2) identifying sports coaches perceived barriers and enabling factors to mindfulness practice as a self-care tool using the Theoretical Domains Framework (TDF; Michie et al., 2005) to establish the foundations for developing an evidence and theory-based self-care intervention.

Research Method

The current study used a qualitative study design using semi-structured interviews based on the TDF (Michie et al., 2005). The TDF is a comprehensive list of theory-based explanations of behaviour that be used to investigate factors that may hinder or enable the performance of behaviours. The operational definitions for each of the twelve domains in the context of the current study are provided in Table 1 based on definitions from the American Psychological Associations' Dictionary of Psychology (*APA Dictionary of Psychology*, 2007).

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Sports coaches were invited to participate in this study. They needed to have an official *coaching qualification such as the* National Coaching Certification Program[1] community sports or competition development certification or equivalent. They had to have at least one year of coaching experience. They were required to be 19 years of age or older, and since interviews were conducted online, participants needed access to either Zoom or Microsoft Teams.

Recruitment occurred through social media advertisements by posting on Facebook coaching group pages, social networking sites such as Coaching New Brunswick, and the Coaching Association of Canada.

Domain	Definition
Knowledge	Any reflection on an awareness of the existence of something which is related to practicing mindfulness as a form of self-care as part of coaching or achieving a behavior-related outcome mindfulness.
Skills	Any reflection on an ability or proficiency acquired through practicing mindfulness.
Social/Professional role and identity	Any reflections on the ability to function in line with one's social identity, values, and perceived norms.
Beliefs about capabilities	Any reflections on ability, talent, or control to practice mindfulness as a form of self-care as part of coaching.
Beliefs about consequences	Any reflections on the outcomes that mindfulness practice might have for the self and others, including positive and negative consequences.
Motivation and goals	Any reflections on the conscious decision to perform mindfulness as a form of self-care.
Memory, attention, and decision processes	Any reflection on the ability to retain information, focus selectively on aspects of the environment, and choose between two or more alternatives.
Environmental context and resources	Any reflections on the circumstance of a person's situation or environment that discourages or encourages the performance of

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[1] The National Coaching Certification Program (NCCP) provides standardized, inclusive, and safe sport education to coaches and coach developers across 65 sports

	behaviour, or the achievement of a behaviour-related outcome.
Social influences	Any reflections on interpersonal processes that cause individuals to change their thoughts, feelings, or behaviours about practicing mindfulness as a form of self-care as part of coaching.
Emotion	Any reflections on complex reaction pattern, involving experiential, behavioural, and physiological elements, by which the individual attempts to deal with a personally significant matter or event.
Behavioural regulation	Any reflections on actions that are aimed at managing or changing behaviours to practicing mindfulness as a form of self-care as part of coaching.
Nature of behaviours	Any reflections on the routine, automaticity, or habitual nature of the behaviour (practicing mindfulness as a form of self-care as part of coaching).

Table 1 *TDF domains and operational definitions used in the current study*

The Target, Action, Context, and Time, known as the TACT Framework (Fishbein, 1967) was used to identify specific target behaviour. TACT summarizes the behaviour in terms of doing what, to whom, in a given context, and at a specific time (Foy et al., 2007). The behaviour was specified by the research team and defined in the interview prompt card as: "Practicing mindfulness regularly yourself as a form of self-care as part of your coaching. By mindfulness, I mean focusing on being fully present, aware of where we are and what we're doing, and not overly reactive or overwhelmed by what's going on around us. Examples of mindfulness practices include meditation, body scans, breathing exercises, yoga, or journaling." The TACT specification complements the general TDF definition used within the topic guide by breaking down what was meant by "practicing mindfulness regularly yourself as a form of self-care as part of your coaching."

The interview topic guide consisted of three sections. There were three sections in the interview topic guide: demographics, stress-coping strategies, and open-ended questions.

Finding

Table 2 provides an overview of participants' demographic and coaching characteristics. Sixteen sports coaches (female= 6, male= 10, median age= 43) participated in the study. Exercise, mindfulness, and social support emerged as the dominant stress coping strategies among participants. Five prominent domains and seven subthemes were established as the

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significant barriers among this population (i.e., knowledge, emotion, social influences, environmental context and resources, emotion, and professional role and identity)

Participant Characteristics	Male n (%) N=10	Female n (%) N=6	Total n (%) N=16
Age (median, SD)	46 ± 9.9	40 ± 8.9	43 ± 9.5
Relationship status			
Married/Domestic	8	4	12
Widowed/Divorced/Separated	0	0	0
Single	2	2	4
Coaching Credentials			
NCCP* certification	2	2	4
Other national federation certification	8	4	12
Coaching Environment			
Team sports	3	3	6
Individual sports	7	3	10
Location (continent)			
Asia	4	4	8
Africa	0	0	0
Europe	1	0	1
North America	3	2	5
South America	0	0	0
Australia	2	0	2
Antarctica	0	0	0
Mindfulness Practice			
Yes	7	4	11
No	3	2	5
Coaching Experience			
Beginner (<3 years)	3	1	4
Intermediate (3-10 years)	4	2	6
Advanced (>10 years)	3	3	6
Coaching position			
Part-time	4	1	5
Full time	5	5	10
Retired	1	0	1

Table 2 *Participant demographics split by gender*

(NCCP = National Coaching Certification Program (Canada))*

Aim #1: Understanding existing stress coping strategies of sports coaches

The research findings indicate that the sports coaches in the study employed various coping strategies to manage their stress. Seven participants preferred exercising and reading as their primary coping mechanisms, engaging in activities like nature walks, swimming, biking, and running (*"If I'm stressed today…I swim, I run, I bike"*). Six participants utilized mindfulness practices such as meditation, mindful movement, journaling, and deep breathing to cope with stress. Breathing techniques were employed by two participants to reduce stress levels ("*take deep breaths to think clearly…to be present at the situation*"). Three participants sought social support by talking to other coaches or spending time with their families. One participant used self-talk to navigate stressful coaching situations. Additionally, three coaches relied on planning as a stress management strategy. Notably, no negative stress coping strategies were reported among the participants. Overall, the study suggests that sports coaches commonly employ a combination of proactive and reactive coping strategies to manage stress effectively.

Aim #2: Barriers and facilitators to mindfulness practice.

Each of the 12 theoretical domains was identified within the interview transcription. Table 3 provides an overview of each domain and Figures 1 and 2 show the conceptual maps of domains, sub-themes, and illustrative quotations.
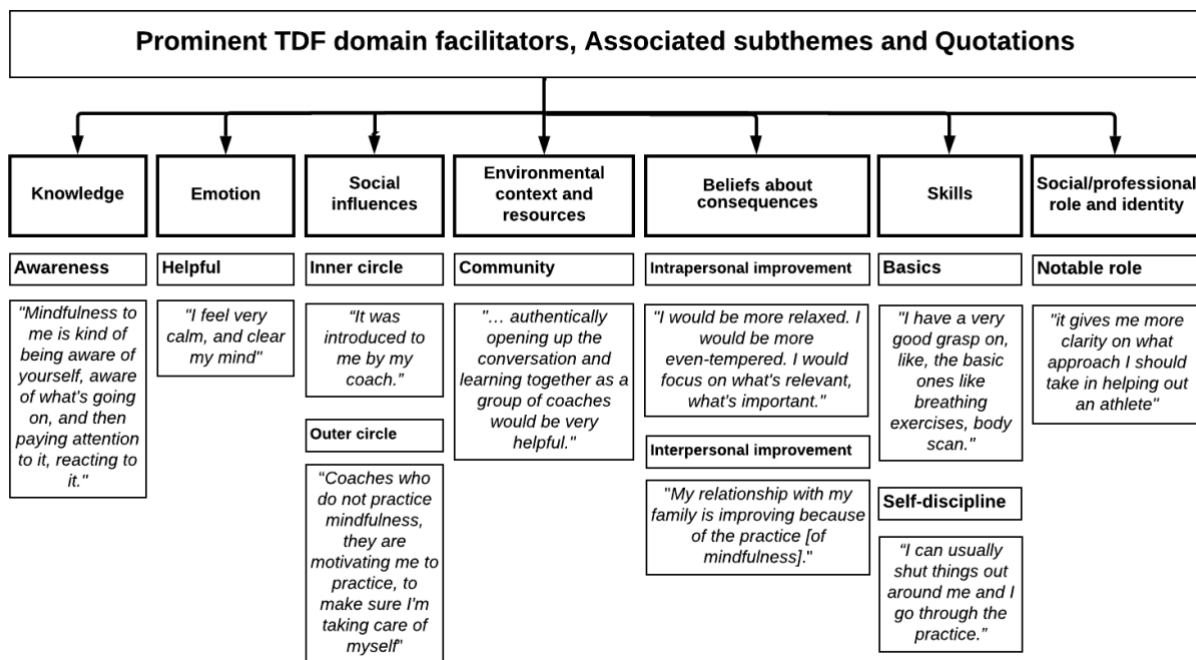

Figure 1 - Conceptual map of sports coaches' barriers of mindfulness practice

Prominent TDF domain barriers, Associated subtheme and Quotations

Knowledge	Emotion	Social influences	Environmental context and resources	Professional role and identity
Unawareness	**Unhelpful**	**Inner circle**	**Community**	**Athlete centered**
"Since I am not practicing it [mindfulness], I don't have that much idea, I cannot recommend it to others as well."	*"meditation, I hate that word…my ex-husband…[he] used to beat me would tell me to meditate…that's the reason why I hindered myself from meditation because it reminded me of him."*	*"in Europe…training and endurance sports is very old school…very much tied to how it used to be how it used to do things. And it's very macho, and therefore talking about journaling, yoga, body scans, meditations, people start getting sort of a twitch in the nose like that."*	*"I told them that mindfulness is one of the things that I do that helped me get through that phase [depression], and then they took it, but they even made jokes about it"*	*"to deal with pre-race stress, I speak a lot about breathing exercises, especially for triathletes who are have a fear of the water or uncomfortable in the water"*

Outer circle

"Aside from yoga instructors, I have no idea what other coaches do. They only talk about their training on social media […], but they never actually talk about the real stuff"

Cost

"Yes, I guess the only problem is budget. [laughs] Yes, that's the impediment. Budget, But why not, right? If it's there. I always want to learn."
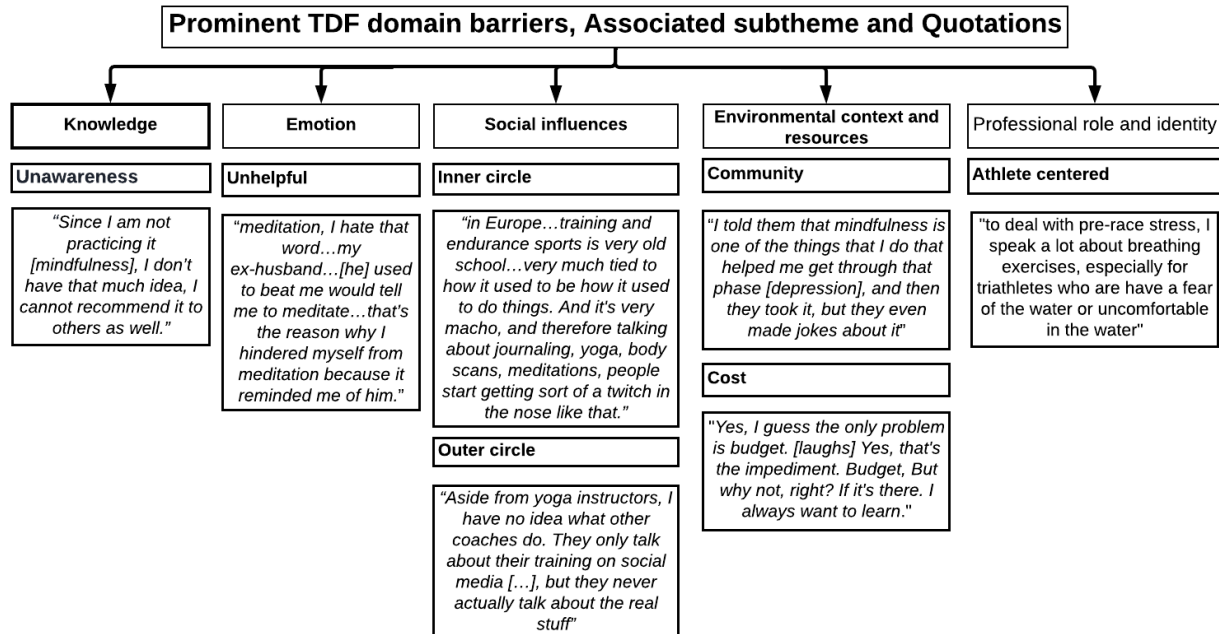
Figure 2 - Conceptual map of sports coaches' facilitators of mindfulness practice

Eight domains were considered as both barriers of and enablers to performing mindfulness as a form of self-care. Within the eight prominent domains, 15 sub-themes were identified. Four were viewed as barriers, three were viewed as either barriers or enablers, and eight were viewed as enablers. How these sub-themes were viewed as either barriers or enablers is described in detail below.

Theoretical Domain	Sub-themes	Barrier or Facilitator	Links with other domain/s
Knowledge	Awareness	Facilitator	
	Unawareness	Barrier	
Emotion	Helpful emotions	Facilitator	Beliefs about consequences
	Unhelpful emotions	Barrier	
Social influences	Inner Circle	Facilitator and Barrier	
	Outer Circle	Facilitator and Barrier	Environmental context and resources
Environmental context and resources	Community	Facilitator and Barrier	Social influences

	Cost	Barrier	Emotion Knowledge
Beliefs about consequences	Intrapersonal improvement	Facilitator	
	Interpersonal improvement	Facilitator	Social/professional role and identity
Skills	Basics	Facilitator	
	Self-discipline	Facilitator	
Social/professional role and identity	Athlete centered	Barrier	
	Notable role	Facilitator	
Beliefs about capabilities	confidence	Facilitator	
Nature of the behaviour	none	Facilitator	Beliefs about capabilities
Memory, attention, and decision processes	none	Facilitator	Nature of the behaviour and Beliefs about capabilities
Behavioural regulation	none	Facilitator	Nature of the behaviour
Motivation and goals	none	Facilitator	

Table 3 - Summary of key theoretical domains, subthemes, and relationships with other domains

Key Theoretical Domains

Knowledge

The 'knowledge' domain includes any reflection on an awareness of the existence of something related to practicing mindfulness as a form of self-care or achieving a behaviour-related outcome of mindfulness. Two subthemes are identified: "awareness" and "unawareness." The sub-theme 'awareness' covers reflections of the participant's knowledge and understanding of mindfulness. These includes definitional awareness of what mindfulness is: "*...placing one's focus or awareness on what is happening at the present moment*" (coach #1, male). The sub-theme 'unawareness' captures reflections that indicate the participant has minimal awareness about mindfulness. For example, when participants were asked how familiar they are with

mindfulness, based on the prompt card definition, those who did not practice mindfulness saw themselves as '*low to moderately*' aware of mindfulness.

Emotion

The 'emotion' domain captures any reflection on any affect-based barriers and enablers, such as complex reaction pattern involving experiential, behavioural, and physiological elements, by which the individual attempts in practicing mindfulness. The subthemes identified were 'helpful emotions' and 'unhelpful emotions.' Helpful emotions refer to positive feelings that motivate further mindfulness practice, such as using meditation or focusing on the body to reduce stress. Unhelpful emotions include negative experiences associated with mindfulness, religious or cultural beliefs that may discourage its practice, and being ridiculed by others when discussing mindfulness. These unhelpful emotions can act as barriers to implementing mindfulness practice.

Social influences

The domain of 'social influences' focuses on the role that relationships play for sports coaches to change their thoughts, feelings, or behaviours about practicing mindfulness. The domain of social influences includes two subthemes: (1) 'inner circle' and (2) 'outer circle.' The inner circle refers to individuals with whom the participants have strong ongoing relationships, such as close friends, previous coaches, or mentors. Participants described two types of individuals in their inner circle: those who introduced them to mindfulness and those who they felt might hinder their practice. Those who introduced mindfulness to the participants were typically their coaches, mentors, or relatives, indicating a pre-existing familiarity with mindfulness. However, some coaches expressed concerns that older or more conservative coaches in their inner circle might struggle to embrace the concept of mindfulness.

On the other hand, the outer circle consists of individuals with whom the participants have either weak or no ongoing relationships or past interactions. One participant observed that individuals in their outer circle who do not practice mindfulness serve as an example of avoidance. This participant noticed that coaches who do not practice mindfulness are not as focused compared to those who do, which motivates them to prioritize self-care and mindfulness practice. In essence, it becomes evident that the participants' engagement with mindfulness practice as sports coaches is significantly shaped by the influence of their inner and outer circles of social relationships.

Environmental context and resources

The concept of 'environmental context and resources' pertains to the environmental factors affecting a coach's mindfulness practice, encompassing elements that either promote or hinder such practice. The two sub-themes of 'community' and 'cost' were identified. The 'community' sub-theme emphasizes the importance of a safe environment where coaches can connect with others who practice mindfulness. On the other hand, the 'cost' sub-theme focuses on the environmental resources that can hinder mindfulness practice. This includes financial costs and a lack of time. Some participants mentioned that the financial cost of learning mindfulness was a barrier, while others stated that a lack of time in their schedule prevented them from practicing regularly:

"*...number one is time...you should allocate time for it...time is very precious for everyone...for me, time is most precious...that's the cost*" (Coach #1, male).

Beliefs about Consequences

The beliefs about consequences relate to the reflections of the participants on the outcomes that a mindfulness practice might have for the self and others, including positive and negative consequences. The sub-themes identified are 'intrapersonal improvement' and 'interpersonal improvement.' Regarding intrapersonal improvement, participants reported positive personal development, including emotion management ("*keep myself calm*"), changes in self-perception ("*improving my relationship with myself*") as well as cultivating an open mind towards the outside world ("*[having] more of an open mind,*"). Most participants believed that the benefits of mindfulness outweighed the costs, although some acknowledged the potential negative consequences of not practicing regularly such as increased stress and anxiety. Mindfulness helped coaches listen without judgment, handle athletes' concerns, and stay level-headed, thus aiding them in their social and professional roles.

Skills

The 'skills' domain encompasses any reflection about the skills or proficiency required to perform mindfulness. It includes two sub-themes: 'basics' and 'self-discipline.' Under the 'basics' sub-theme, participants who practiced mindfulness mentioned having basic skills required for mindfulness. Some participants learned basic mindfulness techniques like breathing exercises and body scan, either through self-teaching using books or smartphone applications. However, a few participants learned formally by enrolling in mindfulness courses. The 'self-discipline' sub-theme emphasizes the importance of self-discipline in practicing mindfulness. Most participants highlighted that self-discipline is a necessary skill for mindfulness. They emphasized that practicing mindfulness requires a person to be willing to invest time in self-improvement. Participants described mindfulness as an acquired skill that demands intentional practice, which is closely connected to self-discipline. With practice and intention, individuals can improve their mindfulness skills.

Social/professional role and identity

Any reflections on the ability to function in line with one's social identity, values, and perceived norms are associated with the 'social/professional role and identity' domain. Some coaches believe that mindfulness is important, especially when coaching teenagers and younger kids. Mindfulness is seen as a notable role in reducing the risk of burnout and improving listening skills, allowing coaches to respond effectively to their athletes ("*it gives me more clarity on what approach I should take in helping out an athlete*"). However, there are mixed responses when it comes to discussing mindfulness with other coaches, as some coaches have faced ridicule or dismissive comments from other individuals such as "*not so important*" (coach #6, male). Many coaches view mindfulness as a useful tool for athletes, using practices such as breathing, body scans, yoga, and journaling to help relieve stress and anxiety. The goal is to help athletes focus and perform better.

Conclusion

This research investigation discerned several coping strategies regularly employed by sports coaches, which are applied either in a proactive, reactive, or combined manner. In order to help sports coaches see themselves as performers alongside their athletes, cultural shifts in sports, media and the general community are needed. Organizations must place more value on their coaching and support staff performances and functions. Developing interventions to promote mindfulness throughout the coaching community and targeting the identified major barriers will have greater potential to change behaviour, optimizing sports coaches' overall health, well-being, and performance.

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