

## **Coaching Under Stress and Burnout**

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Chapter ##

Stress and Burnout in Coaching

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Short title for the Running Heads

Stress & Burnout

## **Abstract**

This chapter will explore stress and burnout in the context of sports coaching. First an effort will be made to provide some conceptual clarity in defining the stress, burnout, and related terms, and in exploring the multiple and often overlapping, theoretical perspectives underpinning coach stress and burnout research. The coach stress literature that has examined stressors, coping methods, and the impacts of coach stress will be critically discussed and relationships between stress, burnout, and coach well-being/ill-being will also be highlighted. Avenues for future coaching research related to stress, burnout, and well-being will be outlined, and practical implications for coaches, coach educators, and other key stakeholders are also provided. More specifically, existing research reveals a real need to place coach well-being at the forefront of the coaching agenda by coach educators and developers, and this chapter will conclude by suggesting potential strategies for promoting coach well-being in various high-performance and developmental contexts.

**Keywords:** coaching; stress; well-being; exhaustion; mindfulness.

## Stress & Burnout in Coaching

### Overview

Stress is and will always be an inevitable part of sport. The ability to manage the vast range of stressors arising from organisational issues, performance-demands, and the personal domain is a significant factor influencing both performance outcomes and subjective well-being for any sports performers. Sport and performance psychology research has attempted to shine a light on the ways in which the experience of stress might impact upon these performers, often limited to the athletes under the spotlights. However, this chapter will shift the spotlight to the coach. The consensus view is that given the multiple roles a coach must take on, as well as the technical, physical, organisational, and psychological challenges those roles entail, sports coaches should be regarded as – *performers* – in their own right (Didymus, 2017; Frey, 2007; Gould, Guinan, Greenleaf, & Chung, 2002; Olusoga, Butt, Hays, & Maynard, 2009).

Coaching has been described as an all-consuming, demanding, and oftentimes frustrating profession (Didymus, 2017; Raedeke, 2004), and the impact of stress on sports coaches has become a popular topic of investigation (e.g., Olusoga, Butt, Maynard & Hays, 2010; Thelwell, Weston, Greenlees, & Hutchings, 2008). Coaches have reported stress leading to anxiety, losing confidence, and withdrawal from sport, in addition to the physical and emotional exhaustion and cynicism often associated with burnout (Frey, 2007; Kelley, 1994; Kelley & Gill, 1993; Olusoga et al., 2010; Olusoga & Kenttä, 2017). In addition, these negative impacts on coaches, have also been linked to a host of potentially detrimental athlete outcomes, including damaged coach-athlete relationships, impacts on the coaching environment, athletes' performance and development, and athlete burnout (Price & Weiss, 2000; Thelwell, Wagstaff, Rayner, Chapman, & Barker 2017; Thelwell, Wagstaff, Chapman, & Kenttä, 2017).

This chapter will critically examine research exploring coach stress and burnout. The ability to understand and manage stress and burnout is of paramount importance for sports coaches operating in various performance contexts. Thus, we will first make an effort to provide some conceptual clarity in defining the terms and exploring the various, often competing and overlapping, theoretical perspectives underpinning coach stress and burnout. We will discuss the stress process as applied to sport coaches and review the coach stress literature that has examined stressors, coping methods, and the impacts of coach stress on both athletes and coaches themselves. The chapter will also explore the relationships between stress, burnout, and coach well-being/ill-being based on a review of the growing body of coach burnout literature. Avenues for future coaching research will be suggested, and practical implications for coaches, coach educators, and other key stakeholders are provided. More specifically, we emphasize the need for coach well-being to be placed high on the coaching agenda by those responsible for coach education and coach development, and suggest potential strategies for promoting coach well-being in various contexts.

### **The Context of HP Coaching**

Before any meaningful or detailed discussion of stress and burnout in high-performance (HP) coaching can take place, it is important to understand key elements of the specific context of HP coaching. Gould and colleagues (2002) asserted that coaches are performers in their own right and much of the research into coaching stress and burnout has adopted a similar perspective (Frey, 2007; Olusoga et al., 2009; Didymus, 2017). While there is no doubt that coaching can be extremely rewarding, coaching is certainly a challenging and oftentimes frustrating profession (Didymus, 2017; Raedeke, 2004). Within HP contexts in particular, coaches are often compelled to work long and irregular hours, spending substantial amounts of time away from their homes and families (Norris, Didymus, & Kaiseler, 2017). This can lead to isolation and loneliness in the role (Olusoga et al., 2009) and issues with

work-home interference (Bentzen, Lemyre, & Kenttä, 2016b), again representing further stressors for coaches.

At the same time, HP coaches are exposed to unrelenting pressure related to performance expectations, alongside the ever-present threat of unemployment and/or funding cuts (Mallett & Lara-Bercial, 2016). In addition, HP coaches might have to endure constant scrutiny from media and fans, amplified by social media, so that their decisions, team selections, and perceived mistakes can be replayed, criticized, and shared around the world even before the competition has ended.

Taken together, the context of HP coaching appears to be one in which coaches experience a combination of extreme, overlapping, and often conflicting demands on their time, energy, and resources (Kenttä, Olusoga, & Bentzen, in press). Moreover, several negative consequences for coaches' mental health have been reported in the literature and include psychophysiological outcomes such as sleep disturbance, mood changes, emotional responses, and burnout (Bentzen et al. 2016b; McNeill, Durand-Bush, & Lemyre, 2016; Olusoga et al., 2010).

While it is clear that the HP coach has a somewhat challenging role to fulfil, the strict expectation on the coach is to take responsibility for the well-being and performance of their athletes (Olusoga, Maynard, Hays, & Butt, 2012). Unfortunately, this often has the result of relegating coaches' self-care to a secondary concern, if considered at all. Moreover, the hyper-masculine environment of elite sport (i.e., one that is dominated by supposedly desirable characteristics like mental toughness, strength, grit, and resilience), is another context-specific factor that can contribute to coaches' stress and experiences of burnout (Häggglund, Kenttä, Wagstaff, & Thelwell, 2019). Traditionally, this environment is not one in which showing vulnerability or engaging in help-seeking behaviors has been encouraged. As such, coaches have reported masking emotional difficulties to maintain an appearance of

being under control and able to cope with stress. The impact of this on coaches' well-being has recently been reported (Olusoga & Kenttä, 2017; Kenttä et al., in press) and will be discussed throughout this chapter.

### **Stress in HP Coaching**

The generally accepted definition of stress within the sport psychology literature views stress as "an ongoing process that involves individuals transacting with their environments, making appraisals of the situations they find themselves in, and endeavoring to cope with any issues that may arise" (Fletcher, Hanton, & Mellalieu, 2006, p.329). Put simply, coaching stress is the process by which coaches weigh up the demands that they face, against their perceived ability to cope with those demands. In the past, it has been suggested that failure to consistently define stress has limited our theoretical understanding of stress and its associated key concepts. However, our current understanding that *stressors* are the environmental, organisational or personal demands placed on an individual, *strain* is the psychological, physiological, or behavioral response to those demands, and *coping* represents all attempts to manage either the demands or the responses, has led to a conceptual clarity that advanced this field of research and practice.

Using Lazarus' transactional theory of stress as a theoretical underpinning, a large proportion of the coaching stress literature has focussed on identifying stressors in various coaching contexts (Norris et al., 2017). The rationale for this seemed to be that a more comprehensive understanding of the stressors experienced by coaches would allow sport organisations (and sport psychology practitioners and coaches themselves) to more effectively manage the multifaceted demands of working in sport (Hanton, Fletcher, & Coughlan, 2005). Based largely on research in occupational settings, and on his own applied practice experience, Taylor (1992) suggested that stressors in coaching fall into three broad categories: factors intrinsic to the individual, such as lack of experience or self-doubts

(personal stressors), interactions with others both in and outside of the immediate working environment (social stressors), and factors originating "within the team's organisational superstructure," such as long hours, lack of support, and financial concerns (organisational stressors). Stressors falling broadly into Taylor's three categories have been identified in the coach stress literature. For example, concerns related to athletes and athlete performances (e.g., Didymus, 2017; Kroll & Gundersheim, 1992; Wang & Ramsey, 1998; Rhind, Scott & Fletcher, 2013), pressure to produce results (e.g., Frey, 2007; Olusoga et al., 2009; Pastore, 1991; Thelwell et al., 2008), demands on time (e.g., Frey, 2007), and lack of control (e.g., Robbins, Gilbert, & Clifton, 2015) have all been cited as stressors by coaches operating at various levels.

Knight, Reade, Selzler & Rogers (2013) identified further personal and situational factors influencing coaches' perceptions of stress. Unclear expectations, long working hours, lack of agreed criteria for evaluation, higher salaries, and a lack of social support were all related to higher perceptions of stress in coaches working in a broad a range of performance and developmental contexts. In addition, several studies highlighted the self-imposed pressure that coaches create, which acts as a further stressor. For example, Durand-Bush, Collins, and McNeil (2012) reported that women coaches placed high levels of expectation on themselves based on a desire to meet their preferred standards and to create an environment in which their athletes could enjoy themselves and excel. While coaches' concerns regarding their own performances and the pressure they place on themselves to meet expectations have been commonly referred to in the literature (e.g., Chroni, Diakaki, Perkos, Hassandra, & Schoen, 2013; Knights & Ruddock-Hudson, 2016; Olusoga et al., 2009; Thelwell et al., 2008), women coaches perhaps face several unique challenges in the male-dominated culture of elite sport. The relatively small number of women HP coaches (ranging between 8.4% - 20% in Canada, Norway and Sweden; Bentzen, et al., 2016b; Kidd,

2013) is itself a potential stressor for this population. Carson, McCormack, and Walsh (2018) explored perceptions of women coaches, and suggested that the coaching role might be incompatible with general well-being and healthy family living. This perception might create an environment in which women coaches' blame themselves for this incompatibility, rather than the coaching context, and feel the need to 'toughen up' to 'fix' the problem (La Voi, 2016b). Problematizing the coach, rather than the organisational culture might have the effect of adding to the unique set of stressors already associated with women's HP coaching.

Another under-researched area with regards to coach stress and burnout is the rapidly growing domain of Para sport. A few authors have explored some of the unique challenges of coaching in this performance context. For example, Wareham, Burkett, Innes, and Lovell (2017) highlighted practical (operational and physical), knowledge-based (e.g., concern about lack of disability specific knowledge), psychosocial (e.g., athletes' emotional issues, stigma around disability) and funding-related (e.g., inequity of resources compared to non-disabled sports) issues, unique to coaches in HP disability sport. Yet Paralympic sport has received relatively scant attention in relation to the specific demands placed upon coaches' and their well-being in this environment (Lundqvist, Ståhl, Kenttä, & Thulin, 2018).

A significant proportion of the coaching stress research has been conducted with high-school and collegiate, teacher-coaches, based in North American schools. The often dual-role nature of some of the coaches sampled might well have an impact on their perceptions of stress, while the nature of HP coaching, as described above, might bring with it some particular stressors, not apparent in sub-elite/amateur contexts. A number of researchers also recognized the importance of exploring coaching stress in HP coaching contexts. For example, Thelwell et al., (2008) interviewed eleven British coaches of elite athletes, with performance stressors (performances of the coach and performances of the athlete), and organisational stressors (environmental, leadership, personal, and team issues) being

highlighted by coaches. Olusoga et al. (2009) investigated the stressors experienced by 12 world class coaches from a variety of individual and team sports. Ten distinct stressor themes reflecting organisational, competitive, and personal issues emerged from the interviews (*conflict, pressure and expectation, managing the competition environment, athlete concerns, coaching responsibilities to the athlete, consequences of the sport status, competition preparation, organisational management, sacrificing personal time, and isolation*). More recently, Didymus (2017) also investigated the stress experiences of international level sports coaches, with a similar personal, organisational, and competition-related stressors being reported. In addition to reporting coaches' perceived stressors, however, Didymus also outlined the situational properties of stressors experienced by these coaches (e.g., ambiguity, imminence, novelty), and the appraisal mechanisms underpinning their perceptions of stress (e.g., challenge, threat, benefit, and harm/loss).

Indeed, exploring stressors in HP sport is only part of the puzzle. There is no question that coach stress research has identified many, multifaceted, overlapping, complex stressors. Yet, overall, this research has suffered from limited indication from the coaches involved as to whether or not these stressors represented significant challenges to their performances or well-being, or whether they merely represented daily hassles associated with the coaching role.

### **Stress responses and Burnout in HP Coaching**

Fletcher and Scott (2010) proposed four types of stress response: behavioral (e.g., observable actions such as withdrawal), affective (e.g., emotional states like anxiety), cognitive (e.g., negative thinking and maladaptive attributions), and physiological (e.g., increased heart rate). Importantly, distinctions have also been made between more immediate responses to stress and longer-term effects of stress on coaches' well-being and performance (Olusoga et al., 2010). While the majority of the coach stress literature has focused on the

deleterious effects of coaching stressors, it is important to note that coaches' stress responses are not always unwelcome. Heightened awareness, increased energy, and motivation have all been reported as desirable consequences of acute stress (Frey, 2007; Olusoga et al., 2010). Nevertheless, acute responses to stress might often have undesirable consequences as well. Indeed, a number of immediate effects on coaches' behaviors (e.g., agitated body language, sharper tone of voice), emotions (e.g., anger, irritability), and cognitions (e.g., lack of focus, worry, poor decision making) have been reported in the coach stress literature, alongside various physiological changes including tension, shaking, and numbness (Frey, 2007; Olusoga et al., 2010).

Olusoga et al. (2010) reported on some of the longer term effects of stress for the coaches themselves. Negative affect (e.g., emotional fatigue, depression), decreased motivation (e.g., reduced enjoyment), relationships with others (e.g., work-home interference), and withdrawal (becoming more introspective) were all discussed by the HP coaches in the study. Moreover, these unwelcome impacts on coaches have also been linked to a host of potentially damaging athlete outcomes (Bentzen, Lemyre, & Kenttä, 2014; Price & Weiss, 2000; Thelwell, Wagstaff, Rayner, et al., 2017). For example, Thelwell and colleagues (2017), suggested that coach-athlete relationships might be damaged as a result of coach stress, and that athletes' performance and development might also suffer, with athlete burnout being one potential end result. In addition, a handful of studies have provided anecdotal reports of excessive alcohol consumption, severe problems of work life interfering with private life, and divorces attributed to the stress of coaching (Bentze, Lemyre, & Kenttä, 2017; Olusoga et al., 2012; Roberts, Baker, Reeves, Jones & Cronin, 2018).

The more chronic symptoms of stress, such as emotional and physical exhaustion and withdrawal from sport, are often associated with burnout and have often been observed among HP coaches (Olusoga, Bentzen, & Kenttä, 2019). As such, research exploring the

enduring effects of stress on coaches has largely focused on the relationship between stress and burnout (e.g., Caccese & Mayerberg, 1984; Capel, Sisley & Desertrain, 1987; Tashman, Tenenbaum, & Eklund, 2010; Vealey, Udry, Zimmerman, & Soliday, 1992). Burnout is "an enduring experiential syndrome" (Maslach & Jackson, 1986, p.1) characterized by emotional and physical exhaustion (feelings of being emotionally depleted by work), depersonalisation (perceived lack of value of the role and a cynical attitude towards, or withdrawal from, personal relationships at work), and reduced personal accomplishment (perceived lack of competence and low self-esteem).

Early research into coaching burnout was largely based on Smith's (1986) Cognitive-Affective Stress Model, with burnout hypothesized to be a result of exposure to chronic stress (e.g., Caccese & Mayerberg, 1984; Capel et al., 1987; Kelley; 1994; Kelley & Gill; 1993; Vealey et al., 1992). Kelley (1994) and Kelley and Gill (1993), for example, found that stress appraisals (e.g., perceived stress, role conflict, and 'coaching issues') were significantly related to all three dimensions of burnout for male and female collegiate coaches. As Raedeke (1997) argued though, exposure to stress is not a sufficient condition for burnout to develop, so there must be other factors at play. Consequently, authors have variously examined the coach burnout using self-determined motivation and workload (e.g., Bentzen, Lemyre, & Kenttä, 2014, 2016a, 2016b; 2017), emotional labour (e.g., Lee, & Chelladurai, 2016), work-home interference (e.g., Lundkvist, Gustafsson, Davis, & Hassmén, 2016), passion (e.g., Donahue, Forest, Vallerand, Crevier-Braud, & Bergeron, 2012; Moen, Bentzen, & Myhre, 2018), recovery (Altfeld & Kellmann, 2015; Altfeld, Mallett, & Kellmann, 2015), and commitment (e.g., Raedeke, 2004) as their theoretical underpinnings.

Research taking a commitment perspective (e.g., Raedeke, Granzky, & Warren, 2000) found that coaches displaying characteristics of entrapment (i.e., perceived high costs and low benefits of the role, lack of attractive alternatives to coaching, high investments and

social pressure to continue), were more likely to experience burnout than coaches displaying low commitment- or attraction-type commitment profiles. Coakley (1992) argued that the culture within a sport organisation might lead to the development of a singular and sport-related identity. When combined with limited personal autonomy, burnout (conceptualized by Coakley as premature withdrawal from sport) is a likely result. While it is important to recognize that Coakley's assertions regarding burnout were based on interviews with a small sample of adolescent athletes, organisational culture, particularly that related to HP sport, might play a role in coach burnout, especially when considering the organisational demands faced by coaches (Norris et al., 2017). Donahue et al. (2012) explored burnout from a motivational perspective, finding that professional coaches' obsessive passion was associated with their use of ruminative thoughts, which were, in turn, were positively associated with emotional exhaustion. Harmonious passion was thought to prevent rumination and, thus, indirectly protect coaches from experiencing emotional exhaustion.

Also from a motivational perspective, a series of studies from Bentzen and colleagues (Bentzen et al., 2014, 2016a, 2016b; 2017), suggested that higher levels of workload and work-home interference were associated with higher levels of exhaustion in high-performance coaches, and that lower levels of self-determined or autonomous motivation explained increasing risk of burnout over time. Lundkvist et al. (2016) explored the relationships between burnout and workaholism (compulsive addiction to work/working beyond what is required), and work-home interference (conflicts arising as a result of sacrificing family time or work due to competing demands), and found both had associations with emotional exhaustion. More recent explanations have therefore focused on work-home interference and lack of recovery as major determinants of burnout (e.g., Bentzen et al., 2016b; 2017; Kellman et al., 2015; Lundkvist, Gustafsson, Hjälm, & Hassmén, 2012; Lundkvist et al., 2016). Taken together, the existing research certainly seems to suggest that a

number of psycho-socio-environmental influences, rather than just the experience of stress, play a role in the development and maintenance of burnout in coaches.

In 2019, Olusoga, Bentzen, and Kenttä published a scoping review, providing an up-to-date and critical review of the coaching burnout literature. Altogether, 45 published, peer reviewed studies investigated coaching burnout between 1984 and 2017 (see Table 1). While a detailed review of the findings is beyond the scope of this chapter, several key conclusions were drawn. While the overall levels of burnout found in various coaching populations varied across the studies included in the review, a small number of authors have adopted longitudinal designs in order to capture the enduring nature of the burnout syndrome. Although Altfeld et al. (2015) found no significant changes in burnout over the course of a season in their study of 70 full-time coaches from a variety of coaching contexts, Bentzen and colleagues have uncovered some variations in the way that coaches' burnout might fluctuate over time. In one study, 343 HP coaches were evaluated in terms of their perceived goal attainment, workload, perceived autonomy support, need satisfaction, quality of motivation, burnout, and well-being at the beginning and end of a competitive season. Findings indicated that, on average, their well-being had decreased and their levels of burnout increased during that time period (Bentzen et al., 2016a). Bentzen et al. (2016b) found four different trajectories of perceived emotional exhaustion among 299 HP coaches from multiple sports. Although exhaustion either decreased, or remained consistently low for 70% of the coaches, it increased over the three time points from start to end of season for 15% of the coaches involved, while 10% of the coaches perceived their level of exhaustion to be consistently high across the entire season. In sum, one out of four HP coaches (25%) were found to be high in emotional exhaustion at the end of the season. This is a high number and sends a strong message to the community of HP-coaching – stress, burnout and mental health needs attention.

Table 1: Summary of studies included in the scoping review

	N	Sex	Level	Country	Methodology	Main Findings	Theoretical framework	
		M/F MIX	HP PRO AM COLL HS YS		QUANT QUAL MIXED			
1	Altfield, S., & Kellmann, M. (2015). Are German coaches highly exhausted? A study of differences in personal and environmental factors. <i>International Journal of Sports Science and Coaching</i> , 10(4), 637-654.	158	MIX F = 9% M = 91%	MIX HP = 46% PRO = 37% Other = 27	Germany	QUANT Survey	Overall stress and overall recovery demonstrated significant effects on exhaustion. Sense of wellbeing and feeling of meaningfulness both significantly related to exhaustion.	Stress / Recovery
2	Altfield, S., Mallett, C. J., & Kellmann, M. (2015). Coaches' burnout, stress, and recovery over a season: A longitudinal study. <i>International Sport Coaching Journal</i> , 2(2), 137-151.	70	MIX F=18% M = 82%	MIX	Germany	QUANT Survey	Burnout levels did not significantly change over the course of a season. Full-time coaches whose values of perceived success decreased over the season showed increased emotional stress and decreased recovery values.	Stress / Recovery
3	Bentzen, M., Lemyre, P. N., & Kenttä, G. (2014). The process of burnout among professional sport coaches explored through the lens of Self-determination theory: A qualitative approach. <i>Sports Coaching Review</i> , 3(2) 101-116.	4	MIX F = 50% M = 50%	HP	Norway	QUAL Interview	Heavy workloads, lack of leader support, and work-related conflicts affected motivation. Psychological need thwarting and more controlled motivation explained increasing risk of burnout over time.	SDT Workload
4	Bentzen, M., Lemyre, P. N., & Kenttä, G. (2016a). Changes in motivation and burnout indices in high-performance coaches over the course of a competitive season. <i>Journal of Applied Sport Psychology</i> , 28(1), 28-48.	343	MIX F = 8.7% M = 91.3%	HP	Norway & Sweden	QUANT Survey	Coaches increased in burnout and decreased in wellbeing over the course of a season. SDT process model of change useful for explaining differences in burnout and wellbeing in professional work experiences.	SDT Workload
5	Bentzen, M., Lemyre, P. N., & Kenttä, G. (2016b). Development of exhaustion for high performance coaches in association with workload and motivation: A person-centered approach. <i>Psychology of Sport and Exercise</i> , 22, 10-19.	299	MIX F = 8.4% M = 91.6%	HP	Norway & Sweden	QUANT Survey	Higher levels of workload and work-home interference were associated with higher exhaustion. Higher levels of recovery, intrinsic and identified regulations associated with lower levels of exhaustion.	SDT Workload
6	Bentzen, M., Lemyre, P. N., & Kenttä, G. (2017). A comparison of high-performance football coaches experiencing high-versus low-burnout symptoms across a season of play: Quality of motivation and recovery matters. <i>International Sport Coaching Journal</i> , 4(2), 133-146.	92	MIX F = 6.5% M = 93.5%	MIX HP PRO	Norway	MIXED Survey Interview	Motivational profile, work-home interference, and ability to meet recovery demands were variables that contributed to explain differences in coaches' burnout symptoms.	SDT Workload
7	Caccese, T. & Mayerberg, C. (1984). Gender differences in coaches Perceived burnout of college coaches. <i>Journal of Sport Psychology</i> , 6(3), 279-280.	231	MIX F = 40.3% M = 59.7%	COLL NCAA/AIWA Div. I	USA	QUANT Survey	Female coaches reported significantly higher levels of emotional exhaustion and significantly lower levels of personal accomplishment than male coaches.	Stress
8	Capel, S. A., Sisley, B. L., & Desertrain, G. S. (1987). The relationship of role conflict and role ambiguity to burnout in high school basketball coaches. <i>Journal of Sport Psychology</i> , 9, 106-117.	235	MIX No Info	HS Dual Role Teacher Coaches	USA	QUANT Survey	Higher role conflict, higher role ambiguity, and lower student enrolment in the school contributed significantly to higher burnout frequency and intensity	Stress Workload
9	Dale, J., & Weinberg, R. S. (1989). The relationship between coaches' leadership style and burnout. <i>The Sport Psychologist</i> , 3, 1-13.	302	MIX F = 23% M = 77%	HS & COLL NCAA Div. I	USA	QUANT Survey	Coaches displaying consideration style of leadership scored higher on freq. and int. of emotional exhaustion and depersonalisation. Male coaches scored higher in freq. and int. of depersonalisation.	Stress Leadership

10	Donahue, E. G., Forest, J., Vallerand, R. J., Lemyre, P. N., Crevier-Braud, L., & Bergeron, E. (2012). Passion for work and emotional exhaustion: The mediating role of rumination and recovery. <i>Applied Psychology-Health and Well Being</i> , 4(3), 341-368.	117	MIX, F = 11.1% M = 88% (1 = N.S.)	Study1 MIX  Study 2 conducted with Nurses	Norway	QUANT Survey	Obsessive passion predicted ruminative thoughts which, in turn predicted emotional exhaustion. Harmonious passion prevented the use of rumination and indirectly protected coaches against emotional exhaustion.	Dualistic Model of Passion
11	Drake, D. & Herbert, E. P. (2002). Perceptions of occupational stress and strategies for avoiding burnout: case studies of two female teacher/coaches. <i>Physical Educator</i> , 59 (4), 170-184.	2	F	HS	USA	QUAL Case Study Interview	Stressors included intra-role conflicts, coaching multiple sports, and inter-role conflicts. Coaches described a cyclical pattern of stress over each academic year, and over a career.	Stress
12	Gencay, S. & Gencay, O. A. (2011). Burnout among Judo coaches in Turkey. <i>Journal of Occupational Health</i> , 53, 365-370.	65	MIX F = 15.4% M = 84.6%	HP	Turkey	QUANT Survey	Burnout levels of coaches ranged from low to moderate. More experienced Judo coaches (over 16 years) had higher levels of emotional exhaustion than less experienced Judo coaches. Coaches who did not feel satisfaction from their sport administrators had significantly higher levels of emotional exhaustion than those who did.	Stress
13	Hardin, R., Zakrajsek, R., & Gaston, B. (2015). The relationship between job satisfaction and burnout in fast-pitch softball coaches. <i>Journal of Contemporary Athletics</i> , 9(1), 1-14.	326	MIX F = 22% M = 78%	MIX COLL 40.8% (all divisions) HS = 42.6%	USA	QUANT Survey	Softball coaches were moderately burned out. Operating conditions, nature of work, contingent rewards, and promotion influenced coaches' levels of burnout.	SDT
14	Hjälml, S., Kenttä, G., Hassménan, P. & Gustafsson, H. (2007). Burnout among elite soccer coaches. <i>Journal of Sport Behavior</i> , 30(4), 415- 427.	47	M	HP	Sweden	QUANT Survey	71% of coaches in the Women's Premier League experienced moderate to high levels of emotional exhaustion, compared to 23% of coaches in the men's league. Increased leadership demands place coaches in the women's league at higher risk of burnout.	Stress
15	Hunt, K. R., & Miller, S. R. (1994). Comparison of levels of perceived stress and burnout among college basketball and tennis coaches. <i>Applied Research in Coaching and Athletics Annual</i> , 9, 198-222.	915 & 955	N.S.	COLL NCAA Div. I and III)	USA	QUANT Survey	Burnout rates were higher for basketball than tennis, and were higher at T2 (1990-91) than T1 (1982-83). For both coaching groups, self-imposed pressure to win was the greatest stressor	Stress
16	Karabatsos, G., Malousaris, G., & Apostolidis, N. (2006). Evaluation and comparison of burnout levels in basketball, volleyball and track and field coaches. <i>Studies in Physical Culture and Tourism</i> , 13(1), 79-83.	452	N.S	N.S	Greece	QUANT Survey	Basketball coaches reported higher emotional exhaustion and depersonalisation than coaches from other sports, and displayed explicit tendencies for burnout. Team sports coaches experienced "considerable" levels of professional burnout.	Stress
17	Kelley, B. C. (1994). A model of stress and burnout in collegiate coaches - Effects of gender and time of season. <i>Research Quarterly for Exercise and Sport</i> , 65(1), 48-58.	249	MIX F = 47.4% M = 52.6%	COLL NCAA Div. III	USA	QUANT Survey	Male and female coaches higher in coaching issues and lower in hardiness were higher in perceived stress. Both male and female coaches' stress appraisal was predictive of all burnout components.	Stress
18	Kelley, B. C., Eklund, R. C., & Ritter-Taylor, M. (1999). Stress and burnout among collegiate tennis coaches. <i>Journal of Sport &amp; Exercise Psychology</i> , 21(2), 113-130.	265	MIX F = 37.4% M = 62.6%	COLL NCAA Div. I (30.2%) Div. II, III, or NAIA (69.8%)	USA	QUANT Survey	High levels of burnout among the sample A significant multivariate effect was found for gender but not competition level. Women had higher tendency to find coaching stressful than men Women higher on CIS	Stress
19	Kelley, B. C., & Gill, D. L. (1993). An examination of personal situational variables, stress appraisal, and burnout in collegiate teacher coaches. <i>Research Quarterly for Exercise and Sport</i> , 64(1), 94-102.	214	MIX F = 53.7% M = 46.3%	COLL NCAA Div. III & NAIA	USA	QUANT Survey	Greater satisfaction with social support, less experience, and gender (females higher), were related to stress appraisal. All stress appraisals were positively related to burnout.	Stress
20	Kilo, R. A., & Hassmén, P. (2016). Burnout and turnover intentions in Australian coaches as related to organisation support and perceived control. <i>International Journal of Sport Science &amp; Coaching</i> , 11(2), 151-161.	406	MIX F = 28% M = 72%	MIX All levels	Australia	QUANT Survey	Higher perceived organisational support was associated with lower coach burnout scores. Internal locus of control and use of approach coping strategies predicted lower levels of burnout. All three burnout dimensions were strong predictors of coaches' turnover intentions.	Conservation of Resources (COR)

21	Koustelios, A. (2010). Burnout among football coaches in Greece. <i>Biology of Exercise</i> , 6(1), 5-12.	132	M	AM	Greece	QUANT Survey	Low overall levels of burnout. No significant differences between age groups and Emotional Exhaustion was highest among 30-39yr olds	Stress
22	Koustelios, A. D., Kellis, S., & Bagiatis, K. (1997). The role of family variables on football coaches' burnout. <i>Coaching and Sport Sciences Journal</i> , 2(3), 41-45.	203	M	N.S.	Greece	QUANT Survey	Single coaches experienced a statistically higher level of depersonalisation than married coaches. An interaction effect found single coaches with no children scored higher on depersonalisation than married coaches with children.	Stress
23	Lee, Y. H. & Chelladurai, P. (2016) Affectivity, Emotional Labor, Emotional Exhaustion, and Emotional Intelligence in Coaching. <i>Journal of Applied Sport Psychology</i> , 28, 170-184.	430	MIX F = 34.7% M = 65.3%	COLL NCAA Div. I	USA	QUANT Survey	Positive affectivity predicted three forms of emotional labour. Coaches' surface acting and genuine expression significantly predicted their Emotional Exhaustion. Emotional intelligence moderated the relationship between surface acting and Emotional Exhaustion.	Emotional Labour
24	Li, L. (2012). The Study on Effects Resulted from Job Burnout on Performance Appraisal of Professional Coaches in China. <i>Advanced Materials Research</i> , 345, 405-410.	213	N.S	MIX	China	QUANT Survey	Burnout is the Independent here. Low potency and knowledge drain elements of burnout predict task performance (KD being the primary factor).	Stress Workload
25	Lundkvist, E., Gustafsson, H., Hjälm, S., & Hassmén, P. (2012). An interpretative phenomenological analysis of burnout and recovery in elite soccer coaches. <i>Qualitative Research in Sport, Exercise and Health</i> , 4(3), 400-419.	8	M (from Hjälm et al., 2007)	HP	Sweden	QUAL Interview	Findings describe coach burnout as stemming from a combination of issues related to home and work. Two profiles of burnout identified: - handling performance culture - overall situation including workload, family, and health	Stress / Recovery Workload
26	Lundkvist, E. Gustafsson, H., Davis, P., & Hassmén. (2016). Workaholism, home-work/work-home interference, and exhaustion among sports coaches. <i>Journal of Clinical Sport Psychology</i> , 10, 222-236.	261	MIX 261	MIX 17% PRO Rest HS	Sweden	QUANT Survey	Workaholism associated with Emotional Exhaustion for coaches high on EE. Negative work-home interference has a stronger association with EE than negative home-work interference. Coaches in the higher percentiles have a higher risk for burnout.	Work-Home Interference
27	Malinauskas, R., Malinauskiene, V., & Dumciene, A. (2010). Burnout and perceived stress among university coaches in Lithuania. <i>Journal of Occupational Health</i> , 52(5), 302-307.	203	MIX F = 33% M = 67%	COLL	Lithuania	QUANT Survey	Burnout was more common among university coaches with over 10 years' experience. Higher levels of perceived stress were associated with burnout.	Stress
28	McNeill, K., Durand-Bush, N., & Lemyre, P. N. (2016). Understanding coach burnout and underlying emotions: a narrative approach. <i>Sports Coaching Review</i> , 6(2), 1-18.	5	MIX, F = 2 M = 3	MIX	Canada	QUAL Interview	Coaches described a variety of emotions including anger, anxiety, apathy, and dejection, which have negative implications on their well-being and coaching practice. Emotions were linked to the three dimensions of burnout.	Emotions
29	Nikolaos, A. (2012). An examination of a burnout model in basketball coaches. <i>Journal of Physical Education &amp; Sport</i> , 12(2), 171-179.	170	M	PRO At least 1 season with Nat. Division Club	Greece	QUANT Survey	26% variance in perceived stress was accounted for by coaching level, social support, and years in present position 23% of variance in burnout level was accounted for by combination of indirect and direct variables, with perceived stress being a major predictor.	Stress
30	Olusoga, P. & Kenttä, G. (2017). Desperate to quit: A narrative analysis of burnout and recovery in sports coaching. <i>The Sport Psychologist</i> , 31(3), 237-248.	2	M	HP	Sweden	QUAL Interview	Findings highlighted the experiences of burnout including antecedents, experiences of coaching with burnout, withdrawal from sport, and recovery and personal growth. Role-clarity, work-life balance, counselling, and mentoring all important in facilitating recovery.	Stress Work Home Interference
31	Omotoya, O. O. (1991). Frequency of burnout among selected soccer coaches in Nigeria. <i>Asian Journal of Physical Education</i> , 14 (1), 83 – 88.	40	M	PRO	Nigeria	QUANT Survey	No significant differences between successful and less successful coaches on emotional exhaustion and depersonalisation. Successful coaches (win-loss) scored significantly higher in personal accomplishment than less successful coaches.	Stress
32	Pastore, D. L., & Judd, M. R. (1993). Gender differences in burnout among coaches of women's athletic teams of 2-year college. <i>Sociology of Sport Journal</i> , 10, 205-212.	232	MIX F = 35% M = 65%	COLL	USA	QUANT Survey	A main effect for gender revealed females scored higher on emotional exhaustion than males. Female coaches were more burned out on all three burnout subscales than norms. Male coaches were less burned out than norms.	Not explicitly stated Reference to work life balance

33	Pastore, D. L. & Kuga, D. J. (1993). High school coaches of women's teams: an evaluation of burnout levels. <i>Physical Educator</i> , 50 (3), 123-131.	167	MIX F = 39% M = 61%	HS	USA	QUANT Survey	Female coaches reported higher levels of emotional exhaustion, depersonalisation, and personal accomplishment than male coaches. The overall degree of burnout was average for males, and average to high for females.	Stress
34	Price, M. S., & Weiss, M. R. (2000). Relationships among coach burnout, coach behaviors, and athletes' psychological responses. <i>The Sport Psychologist</i> , 14, 391-409.	15 + 193	Coaches (15) MIX F = 5 M = 10	HS	USA	QUANT Survey	Coaches higher in EE were perceived as providing less training and instruction and less social support and making fewer autocratic and democratic decisions.  Athletes' perceptions of more training and instruction, social support, positive feedback, more democratic and less autocratic styles were related to more positive (perceived competence, enjoyment) and less negative (anxiety burnout) psychological consequences.	Leadership
35	Quigley, T. A., Slack, T., & Smith, G. J. (1987). Burnout in secondary school teacher coaches. <i>Alberta Journal of Educational Research</i> , 34, 260-274.	75 > 21	N.S.	HS	Canada	MIXED Survey Interview	Coaches had moderate levels of EE, lower personal accomplishment, and moderate depersonalisation compared to norms. More females in were in the upper phases of burnout than males and less experienced coaches appeared more prone to burnout.  Size of School (smaller = greater burnout), Amount of Admin, Compensation, and recognition and reward all factors influencing burnout	Golembiewski's (1983) Phase Model of Burnout
36	Raedeke, T. D. (2004). Coach commitment and burnout: A one-year follow-up. <i>Journal of Applied Sport Psychology</i> , 16, 333-349.	141	MIX 141 F = 43.3% M = 56.7%	YS Age group swimmers	USA	QUANT Survey	Coaches with characteristics suggesting increased entrapment showed the largest increase in exhaustion. Those with decreased coaching interest had the lowest commitment.	Commitment
37	Raedeke, T. D., Granzyk, T. L., & Warren, A. (2000). Why coaches experience burnout: A commitment perspective. <i>Journal of Sport &amp; Exercise psychology</i> , 22, 85-105.	295	MIX F = 43% M = 57%	YS Age group swimmers	USA	QUANT Survey	Three clusters of coaches were identified (Commitment, Entrapment, Less Interested). Cluster differences explained 38% of variance in burnout and commitment scores. Entrapped coaches higher on burnout than other groups.	Commitment
38	Richards, K. A. R., Templin, T. J., Levesque-Bristol, C., & Blankenship, B. T. (2014). Understanding differences in role stressors, resilience, and burnout in teacher/coaches and non-coaching teachers. <i>Journal of Teaching in Physical Education</i> , 33(3), 383-402.	413	MIX Teacher Coaches M = 21.3% F = 28.8% Non-Teacher Coaches F = 42.1% M = 7.8%	MIX HS YS	USA	QUANT Survey	All participants reported low Role Ambiguity and depersonalisation, moderate levels of role conflict, emotional exhaustion, and high levels of role overload, and personal accomplishment A small interaction effect found - emotional exhaustion lower for teacher coaches in non-core subjects.	Role Theory
39	Short, S. E., Short, M. W., & Haugen, C. R. (2015). The Relationship Between Efficacy and Burnout in Coaches. <i>International Journal of Coaching Science</i> , 9(1), 37-49.	101	MIX T1 (101) F = 13.9% M = 86.1% T2 (68) F = 16.1% M = 83.9%	HS	USA	QUANT Survey	Coaches had lower coaching efficacy scores and higher burnout scores at post-season compared to pre-season. Correlations between coaching efficacy and burnout were negative at both time points. Low efficacy coaches were more burned out as time passed compared to high efficacy coaches.	Coaching Efficacy
40	Sisley, B. L., Capel, S. A., & Desertrain, G. S. (1987). Preventing burnout in teachers and coaches. <i>Journal of Physical Education, Recreation and Dance</i> , 58, 71-75.	235	MIX F = 7% M = 93%	HS	USA	QUANT Survey	None of the teacher coaches reported high levels of burnout, emotional exhaustion, depersonalisation, or low personal accomplishment.	Stress

41	Stebbing, J., Taylor, I. M., Spray, C. M., & Ntoumanis, N. (2012). Antecedents of perceived coach interpersonal behaviors: the coaching environment and coach psychological well-and ill-being. <i>Journal of Sport &amp; Exercise Psychology, 34</i> (4), 481-502.	418	MIX 418 M = 73.2% F = 26.8%	MIX All levels	UK	QUANT Survey	Higher work-life conflict and fewer opportunities for professional development were associated with a distinct maladaptive process of thwarted psychological needs, psychological ill-being, and perceived controlling interpersonal behaviour.	SDT
42	Tashman, L. S., Tenenbaum, G., & Eklund, R. (2010). The effect of perceived stress on the relationship between perfectionism and burnout in coaches. <i>Anxiety, Stress, &amp; Coping, 23</i> (2), 195-212.	177	MIX F = 35.5% M = 66.4%	COLL All levels	USA	QUANT Survey	Results indicated an indirect effect of self-evaluative perfectionism on burnout through perceived stress, as well as a significant direct link to burnout, accounting for 56% of its variance. Conscientious perfectionism did not impact burnout either directly or indirectly.	Stress Perfectionism
43	Vealey, R. S., Armstrong, L., Comar, W., & Greenleaf, C. A. (1998). Influence of Perceived Coaching Behaviors on Burnout and Competitive Anxiety in female College Athletes. <i>Journal of Applied Sport Psychology, 10</i> , 297-318.	12 + 149	Coaches MIX F = 11 M = 1	COLL NCAA Div. I = 7 Div. II = 2 Div. III = 3	USA	QUANT Survey	Coach burnout significantly related to perceived coaching styles/behaviour. Coaches higher in emotional exhaustion and depersonalisation were perceived by their athletes to use dispraise and an autocratic coaching style.	Stress
44	Vealey, R. S., Udry, E. M., Zimmerman, K, & Soliday, J. (1992). Intrapersonal and situational predictors of coaching burnout. <i>Journal of Sport &amp; Exercise Psychology, 14</i> , 40-58.	848	MIX 848, F = 23.7% M = 75.5%  NS = 0.8%	MIX HS & COLL	USA	QUANT Survey	Trait anxiety emerged as the strongest predictor of burnout. Several other cognitive perceptions of the coaching role (perceived overload of demands, control or autonomy, attainment of meaningful accomplishment, value, professional support, rewards, success, excitement) were also predictive of burnout	Stress
45	Wilson, V. E., & Bird, E. I. (1988). Burning out in coaching – Part two: Results from survey of national coaches. <i>Sport Science on Research and Technology in Sport, 8</i> (9).	144	MIX F = 13.2% M = 85.4%	N.S.	Canada	QUANT Survey	Coaching was reported to be stressful (although no indication of how this was measured is provided). Full-time coaches reported higher levels of burnout and 'stress related symptoms' than part-time coaches.	Stress

**LEVEL: HP** = High Performance; **PRO** = Professional; **AM** = Amateur; **COLL** = Collegiate; **HS** = High-School; **YS** = Youth Sport.  
**All categories: N.S.** = Not Stated

These conflicting findings might, in part, be explained by the nature of HP coaching where the stressors related to job insecurity and performance expectations (less prominent in other contexts) could become more salient towards the end of a competitive season. Only eight out of the 45 studies identified by Olusoga et al. (2019) used longitudinal designs. Given the enduring and often fluctuating nature of coach burnout, it would be prudent for future research to capture that with more longitudinal approaches.

Gender differences in the experience of stress and burnout have also been documented. Caccesse and Mayerberg (1984) for example, found female collegiate coaches to have significantly higher levels of emotional exhaustion and lower perceived personal accomplishments than their male counterparts. Research has also found that female collegiate and high school coaches scored higher on all three burnout dimensions than male coaches (Pastore & Judd, 1993; Pastore & Kuga, 1993). Kelley, Eklund, and Ritter-Taylor (1999) suggested that female collegiate coaches found coaching more stressful than their male coaches with higher scores in the Coaching Issues Survey (CIS: Kelley & Baghurst, 2009). In addition, Hjälml, Kenttä, Hassmén, and Gustafsson (2007) found that 71% of coaches in the Swedish Women's Premier League (soccer) experienced moderate to high levels of emotional exhaustion, compared to 23% of coaches in the men's league. It should be noted, however, that rather than being attributed the gender of the coach (all coaches were men) these differences were primarily related to the inequality of resources available to the coaches of elite clubs for men (more resources) compared to women.

It does seem plausible that women might face additional challenges in their roles as coaches and experience the impacts of stress more strongly than male coaches. Alternatively, it may be that women are less likely to mask and more likely to accurately report their stress and burnout in the research. It is, however, suggested that female coaches face added mental health challenges that they need to overcome in the context of sport (Carson, et al., 2018). For

example, it is often reported that female coaches, to a greater extent, experience challenges with work-life balance, a lack of trust from sport organizations, a lack of job security, and fewer opportunities to network than their male colleagues (Norman, 2010a; 2010b).

### **Beyond Burnout - Mental Health and Well-being in Coaching**

Within the community of elite sports, the darker side of mental health is beginning to receive much more attention and conversations about mental well-being are far more commonplace. Many high profile athletes have openly discussed mental health issues, and coaches are also beginning to open up about their own well-being. One of the most successful football managers of all time, Joesp 'Pep' Guardiola took a year off after four seasons and 14 trophies with FC Barcelona to "recharge his batteries." In a 2019 interview with Sky Sports, Guardiola cited exhaustion coupled with the pressure and expectation placed on him as major precipitating factors in his temporary withdrawal from coaching. Marco van Basten famously quit as coach of Dutch club AZ Alkmaar, after experiencing stress-related heart palpitations.

*That made things too difficult for me. It was specifically my problem. I couldn't do it. I kept suffering from stress. I was the one who needed to take the decisions. Everybody's looking at you. 'What, when, who, how and where?' -*  
Marco van Basten (Lawrence, 2015)

Gary Speed, manager of Sheffield United FC and, later, the Welsh national team, tragically took his own life in 2011. Only later was it revealed that Speed had most likely been battling depression for much of his adult life.

Within the academic community too, the shift towards a focus on well-being issues in sport is clearly evidenced by several recent position statements on mental health targeting athletes (Henriksen et al., 2019; Moesch, Kenttä, Kleinert, Quignon-Fleuret, Cecil, & Bertollo Moesch, 2018; Schinke, Stambulova, Si, & Moore, 2018; Van Slingerland, Durand-Bush, & Rathwell, 2018). Beyond burnout, however, research on major mental health

disorders in the coaching population is still lacking, with a notable absence of studies exploring depression, anxiety disorders, addiction and sleep disorders in coaching. Although alcohol consumption has been mooted as a coping strategy in a number of coaching stress studies (e.g., Olusoga et al., 2012), and coaches have described experiencing depression associated with burnout (Olusoga & Kenttä, 2017), to our knowledge, only one study has attempted to shed some light on issues of depression and alcoholism in sports coaching (Roberts et al., 2018). Coaching is a demanding profession and coaches at the elite level have reported a culture in which showing vulnerability is regarded as a weakness, while suppressing the symptoms of burnout and avoidance of help-seeking is the norm (Olusoga & Kenttä, 2017). It seems obvious that in the high-pressured context of elite sports coaching, seriously addressing mental health issues and mental well-being among coaches is a logical next-step for researchers and practitioners in this field.

### **Interventions**

While research points to coaches being at risk of experiencing burnout, there is a notable absence of intervention studies targeted at stress and burnout in coaches (Olusoga et al., 2019; Raedeke & Kenttä, 2013). However, a small number of studies have been directed towards developing and implementing coach stress and well-being intervention strategies. Olusoga, Maynard, Butt and Hays (2014) developed a Coaching under Pressure, mental skills training (MST) program for coaches, aimed at developing coaches' coping and stress management skills. As a result of this 6-week group intervention program coaches relaxation skills improved, their somatic anxiety was perceived as less debilitating, and they used self-blame less often as a coping strategy. Importantly, post-intervention, coaches also indicated that going through the intervention program helped them to pay greater attention to their own mental preparation and well-being.

Mindfulness-based interventions have slowly emerged in sport science and are now at the forefront of intervention research in sport (Schinke et al., 2018). This development is often credited to Gardner and Moore who introduced mindfulness interventions into sports in the early 2000s. Again though, it is athletes' mental health that has predominantly been the focus of such interventions, and those targeting coaches are restricted to two notable studies (Longshore & Sachs, 2015; Lundqvist et al., 2018). Longshore and Sachs (2015) developed Mindfulness Training for Coaches, with the aim of increasing mindfulness and emotional stability, and reducing anxiety. Incorporating elements of Mindfulness Based Stress Reduction (MBSR: Kabat-Zinn, 1982) and Mindful Sport Performance Enhancement (Kaufman, Glass & Arnkoff, 2009), their program was delivered via a 90-minute initial training session and a six-week home program (20 minutes per day). Coaches in the treatment group (n=12) reported significantly greater emotional stability and less anxiety after participating in the program, as well as positive impacts in work-life balance, athlete interactions and coaching performance.

Lundqvist et al. (2018) conducted a mindfulness intervention aimed at preparing Paralympic leaders for managing challenges typically associated with major events. Conducted in a real-world context, this study was an integral part of a larger support program prior to the London 2012 Paralympic Games. An initial session introduced mindfulness (theory and practice) to the intervention group of Swedish Paralympic leaders (6 women and 4 men). This was followed by eight web-based seminars led by a professional trainer (once a week), while a reference group of Norwegian Paralympic leaders (n=6) received no intervention. Three assessments (base line five days before the intervention started, post-intervention, and six-week follow-up) were conducted. In brief, results suggested that the intervention group displayed greater psychological flexibility, less rumination, and lower perceived stress. Taken together, the findings from these two studies suggest that

mindfulness-based interventions might have important implications for coaches' overall well-being.

In addition, McNeill et al. (2018) conducted a study with 250 Canadian developmental and HP coaches with the aim to explore if the capacity to self-regulate could explain their perception of stress. Results revealed that coaches higher in self-regulation capacity perceived lower stress than coaches as compared to their counter parts.

Finally, mindfulness and acceptance-based interventions continue to receive greater attention outside of sport science. A recent systematic review by Rudaz, Twohig, Ong and Levin (2017) that targeted mental health professionals reported improvements over time in mindfulness, self-compassion, and psychological flexibility. Altogether, MBSR (Kabat-Zinn, 1982), Mindful Self-Compassion (MSC; Neff & Germer, 2013) and Acceptance Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) tend to reduce stress or burnout. Interestingly, results so far are less supportive for psychological well-being, which prompts the need for further research.

### **Future Research**

While it is clear that stress and burnout research in coaching continues to develop, there are still a number of areas on which future researchers might concentrate in order to advance the field. In their 2019 scoping review, Olusoga and colleagues highlighted the dominant tendency toward cross-sectional and quantitative designs. Perhaps most importantly, we recommend that future researchers endeavor to capture the enduring and dynamic nature of the burnout phenomenon. Although time consuming and challenging to complete, greater use of longitudinal research designs, perhaps extending beyond a single competitive season might illuminate coaches' experiences of the shifting and seasonal situational and environmental factors that contribute to burnout. While longitudinal research is certainly important to advance knowledge in this area, researchers should also ensure that

their choice of analysis considers within-person changes over time as potential predictor variables (e.g., Stenling, Ivarsson, Hassmén, & Lindwall, 2017). On a related note, only five studies in Olusoga et al.'s review addressed coach burnout using qualitative methodologies. Qualitative researchers should take up the challenge of bringing the lived experiences of coaches to the fore and shedding further light on coach burnout, withdrawal from sport, and the processes of recovery.

Another important and critical issue is the choice of measurement of coaching burnout. More specifically, we should question whether we are studying coaches who are truly burned out, or coaches who are only displaying some symptoms of one burnout dimension (i.e., by only measuring emotional exhaustion). In summary, future research on coach burnout should carefully consider the most appropriate research design. One obvious challenge with much of the burnout research is the use of self-report measures. However, Baumeister, Vohs, and Funder (2007) suggested that "self-reports may be the most appropriate method, and sometimes are all that is possible" (p. 399). Yet we should also take care to interpret research findings and avoid drawing definitive conclusions based solely on self-report measures. It could also be argued that the ultimate consequence of severe burnout is a temporary (but enduring) or definite withdrawal from sport (Smith, 1986). We should therefore be especially cautious when inferring relationships between personal and situational variables and dimensions of burnout, based on data from coaches who are still active in the profession.

The quality of the interdependent relationship between a coach that is gradually burning out and their athletes is another research topic that has a high relevance in practice. To our knowledge, only two studies (Price & Weiss, 2000; Vealey, Armstrong, Comar, & Greenleaf, 1998) explored athletes' responses to coach burnout symptoms. On a similar note, Thelwell, Wagstaff, Rayner, et al. (2017) explored athletes' responses to coach stress. Based

on this limited number of studies, it is suggested that future burnout research should further consider the interplay between coaches and athletes with special attention to mental health and performance of both parties.

Finally, we argue that future research should explore both prevention and clinical treatment of burnout. Based on previously described interventions, there is a growing evidence base supporting the efficacy of Mindfulness-Based Interventions. In particular, MBSR (Kabat-Zinn, 1982) and Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2018) have shown effectiveness in improving a range of clinical and non-clinical psychological outcomes (cf., Gu, Strauss, Bond, & Cavanagh, 2015). While there has been a notable rise in the use of Mindfulness-Based Interventions for athlete mental health and stress management (Shinke et al., 2017), performance enhancement (e.g., Röhlin, Birrer, Horvath, & Holtforth, 2016), and indeed in other interpersonal professions such as nursing (e.g., Song & Lindquist, 2015), such programs might also be beneficial for coaches, particularly in terms of them developing recovery and self-care strategies (Lundqvist et al., 2018). Moreover, given the cost of burnout at individual, organizational, and community sport levels, future research should explore the wider impact of coach burnout, within and beyond the work environment.

### **Practical Implications**

Before considering interventions and practical steps to promote coach well-being, it is vital that a distinction is made between the expected and normal fatigue associated with the role, and the maladaptive emotional/physical exhaustion associated with burnout. At the elite level in particular, coaches have reported a culture in which vulnerability and help-seeking are avoided, and suppression of emotional difficulties is considered the norm (Olusoga & Kenttä, 2017). Old stereotypes persist (e.g., "*if you cannot handle it, you should quit*"), but are damaging when attempting to promote sustainable coach careers. The United States

Olympic Committee recently published a Quality Coaching Framework (2017), including a chapter on coach well-being, and the importance of designing self-care strategies (monitoring of energy, sleep, physical activity and regular wellness checkups) to foster positive change in professional practice was highlighted. In order to make real progress in this area, however, the practical implications to reduce stress and burnout must be discussed at educational and organizational levels. Specifically, by suggesting that coaches should learn relaxation skills, be more mindful, or engage more with self-care strategies, there is a danger that managing stress and burnout becomes the coaches own responsibility (and, by definition, their fault if something goes wrong). In 'awakening' a coach population to ideas about their own sustainability, this topic of coach well-being needs to be embraced within a broader context including coach education and sport organizations, as well as by individual coaches.

**The micro-politics of sport.** Research has shown how coaches can be unprepared for the complex and wide range of work assignments that they are expected to fulfill (Bentzen et al., 2014), and are often overwhelmed by the potential role ambiguity and political complexity they meet in the everyday work life (Potrac & Jones, 2009; Thompson, Potrac, & Jones, 2013). Time in direct contact with athletes is often just a minor part of the coach role, so coach education should prepare coaches for the organizational structures of clubs/teams, policy making, funding, and other organizational elements of the role that have been consistently identified as coach stressors in the research literature. Within sports organizations, younger coaches, newly qualified coaches, and coaches who enter a new expertise level, are especially in need of attention, not only from supportive leaders (Gagné & Deci, 2005), but also in terms of opportunities for adequate education and professional development (Côté & Gilbert, 2009). The use of mentors could be favorable for these coaches when guiding them in relation to new and unexpected challenges at new expertise levels (Erickson, Côté, & Fraser-Thomas, 2007).

**Workload, irregular work hours, and work-home interference.** As a consequence of high workload and inconvenient workhours, work-home interference is a key topic that should be addressed in coach education, and coaches should be afforded the opportunity to reflect on and discuss sustainability of workload. Too often, coaches have not considered this challenge before entering the coach profession, or when establishing a family. Even though coaches could develop strategies to maintain a sustainable workload and to handle work-home interference, the responsibility to avoid this is first and foremost that of the sports organization as an employer. Early research highlighted clear role expectations as important for the prevention of coach burnout (Capel et al., 1987) and an employer has the responsibility of providing clear and realistic expectations for work assignments. Organizations must manage the expectancy of the coach/coaching team in relation to the available resources and constraints, thereby guiding them in prioritizing their energy on the most important work assignments.

Additionally, it is the sport organization's responsibility to put coaches' work-home interference on the agenda. This is not about controlling or interfering with the coaches' private lives; it is about concern and understanding that the coach role involves challenges for their lives beyond coaching. Moreover, high performance directors and leaders should be open about discussing this matter with coaches, regularly help set long-term plans, and foresee and discuss possible obstacles in relation to work-home interference. Sport organizations should be aware of the benefits that might be gained if coaches have a sound and solid private life (Geurts, Rutte, & Peeters, 1999).

**Self-care - Have fun and recover.** To maintain optimal energy levels and high quality motivation in the job, coaches need to find their jobs interesting, valuable, fun and rewarding over time (Bentzen et al., 2014, 2016a, 2016b, 2017). Through coach education, coaches need to learn about how to detect and monitor their energy level based on their own

quality of motivation (Bentzen et al., 2016a). A powerful strategy to maintain a healthy motivation is to facilitate coaches' awareness of which work assignments fuel their energy, and which ones drain their energy. While coaches obviously cannot just stop doing the less stimulating tasks, they can make attempts to maintain efforts on work assignments they find enjoyable. As coaches enter the profession with a high intrinsic motivation for the sport, finding it fun, interesting, and valuable are aspects that are of great importance to preserve. Moreover, increasing coaches' self-awareness related to when their own physical and emotional responses to the demands of the role are 'normal' and when they might be symptoms of early burnout might a) normalize stress and burnout in coaching, and b) encourage coaches to seek help when they recognize changes in their responses to the demands of the coaching role.

At the organizational level, leaders should raise their own awareness of their coaching staff, which coaches who are no longer enjoying their work and are at risk of leaving the organization, and which coaches are enjoying their work, thriving, and will put effort into their jobs. Consequently, it is of importance, both for the coach and the organization, that high performance directors and leaders support coaches in order to find value, interest and enjoyment in their work (Bentzen et al., 2016b). While the quality and type of motivation for coaches is important for coach sustainability, coaches also need to balance their coaching duties with other areas in their life. The importance of recovery for coaches has long been neglected in coach research and practice (Raedeke & Kenttä, 2013), despite the relationships between recovery and burnout being highlighted (Altfeld et al, 2015). Coach education should help coaches learn about efficient recovery strategies that can be employed when traveling and when at home in the training environment, and sport organizations should be responsible for facilitating a healthy work-life balance, and for emphasizing recovery and self-care as integral parts of the coaching role.

## **10. Conclusion**

In this chapter, we have made the case for coaching being a demanding profession. Research has highlighted the complex, overlapping, organisational, environmental, and personal stressors that coaches at all levels experience, as well as the consequences of stress, including burnout and challenges to coaches' mental health and well-being. We have discussed several avenues that future burnout researchers might wish to explore, including more longitudinal research to capture the enduring, dynamic nature of the burnout experience, and intervention studies, aimed at reducing the incidence of burnout and promoting well-being for coaching populations. Finally, we argued that practical steps taken to ensure sustainability in the coaching profession should be taken at individual and organizational levels. Although mindfulness-based interventions have shown promise for enhancing coach well-being, it is important that the responsibility for managing coach stress and burnout is not placed on individual coaches, but instead becomes a collaborative effort between coaches, coach educators, sport organizations and stakeholders.

## References

- Altfeld, S., & Kellmann, M. (2015). Are German coaches highly exhausted? A study of differences in personal and environmental factors. *International Journal of Sports Science and Coaching*, 10(4), 637-654.
- Altfeld, S., Mallett, C. J., & Kellmann, M. (2015). Coaches' burnout, stress, and recovery over a season: A longitudinal study. *International Sport Coaching Journal*, 2(2), 137-151.
- Bentzen, M., Lemyre, N., & Kenttä, G. (2017). A comparison of high-performance football coaches experiencing high-versus low-burnout symptoms across a season of play: Quality of motivation and recovery matters. *International Sport Coaching Journal*, 4, 133-146.
- Bentzen, M., Lemyre, P. N., & Kenttä, G. (2014). The process of burnout among professional sport coaches explored through the lens of self-determination theory: A qualitative approach. *Sports Coaching Review*, 3, 110-116.
- Bentzen, M., Lemyre, P. N., & Kenttä, G. (2016a). Changes in motivation and burnout indices in high-performance coaches over the course of a competitive season. *Journal of Applied Sport Psychology*, 28, 28-48.
- Bentzen, M., Lemyre, P. N., & Kenttä, G. (2016b). Development of exhaustion for high performance coaches in association with workload and motivation: A person-centered approach. *Psychology of Sport and Exercise*, 22, 10-19.
- Baumeister, R. F., Vohs, K. D., & Funder, D. (2007). Psychology as the science of self-reports and finger movements: Whatever happened to actual behaviour? *Perspectives on Psychological Science*, 2(4), 396-403.
- Caccese, T. M., & Mayerberg, C. K. (1984). Gender differences in perceived burnout of college coaches. *Journal of Sport Psychology*, 6(3), 279-288.

- Capel, S. A., Sisley, B. L., & Desertrain, G. S. (1987). The relationship of role-conflict and role ambiguity to burnout in high-school basketball coaches. *Journal of Sport Psychology, 9*(2), 106-117.
- Carson, F., McCormack, C., & Walsh, J. (2018). Women in sport coaching: Challenges, stress and well-being. *ACTIVE: Journal of Physical Education, Sport, Health and Recreation, 7*, 63-67.
- Chroni, S., Diakaki, E., Perkos, S., Hassandra, M., & Schoen, C. (2013). What Stresses Coaches in Competition and Training? An Exploratory Inquiry. *International journal of coaching science, 7*(1).
- Coakley, J. (1992). Burnout among adolescent athletes: A personal failure or social problem?. *Sociology of Sport Journal, 9*(3), 271-285.
- Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching, 4*(3), 307-323.
- Didymus, F.F. (2017). Olympic and international level sports coaches' experiences of stressors, appraisals, and coping. *Qualitative Research in Sport, Exercise and Health, 9*, 214-232
- Donahue, E. G., Forest, J., Vallerand, R. J., Lemyre, P. N., Crevier-Braud, L., & Bergeron, E. (2012). Passion for work and emotional exhaustion: The mediating role of rumination and recovery. *Applied Psychology-Health and Well Being, 4*, 341-368.
- Durand-Bush, N., Collins, J., & McNeill, K. (2012). Women coaches' experiences of stress and self-regulation: A multiple case study. *International Journal of Coaching Science, 6*(2), 21-43.
- Erickson, K., Cote, J., & Fraser-Thomas, J. (2007). Sport experiences, milestones, and educational activities associated with high-performance coaches' development. *Sport Psychologist, 21*(3), 302-316.

- Fletcher, D., Hanton, S., & Mellalieu, S. D. (2006). An organizational stress review: Conceptual and theoretical issues in competitive sport. In S. Hanton & S. D. Mellalieu (Eds.), *Literature Reviews in Sport Psychology* (pp. 321-374) New York: Nova Science.
- Fletcher, D., & Scott, M. (2010). Psychological stress in sports coaches: A review of concepts, research, and practice. *Journal of sports sciences, 28*(2), 127-137.
- Frey, M. (2007). College coaches' experiences with stress—"Problem solvers" have problems, too. *The Sport Psychologist, 21*, 38-57.
- Gagné, M., & Deci, E. L. (2005). Self-Determination Theory and Work Motivation. *Journal of Organizational Behavior, 26*, 331-362.
- Gould, D., Greenleaf, C., Guinan, D., & Chung, Y. (2002). A survey of US Olympic coaches: Variables perceived to have influenced athlete performances and coach effectiveness. *The sport psychologist, 16*(3), 229-250.
- Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and well-being? A systematic review and meta-analysis of mediation studies. *Clinical Psychology Review, 37*, 1-12.
- Geurts, S., Rutte, C., & Peeters, M. (1999). Antecedents and consequences of work-home interference among medical residents. *Social Science & Medicine, 48*(9), 1135-1148.
- Häggglund, K., Kenttä, G., Wagstaff, C. R. D., & Thelwell, R. C. (2019). Is there an upside of vulnerability in sport? A mindfulness approach applied in the pursuit of psychological strength. *Journal of Sport Psychology in Action*. DOI: 10.1080/21520704.2018.1549642

- Hanton, S., Fletcher, D., & Coughlan, G. (2005). Stress in elite sport performers: A comparative study of competitive and organizational stressors. *Journal of sports sciences, 23*(10), 1129-1141.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and Commitment Therapy: The process and practice of mindful change* (2nd Ed). New York City, NY: The Guilford Press.
- Henriksen, K., Schinke, R., Moesch, K., McCann, S., Parham, W. D., Larsen, C. H., & Terry, P. (2019). Consensus statement on improving the mental health of high performance athletes. *International Journal of Sport and Exercise Psychology*.
- Hjälms, S., Kenttä, G., Hassmén, P., & Gustafsson, H. (2007). Burnout among elite soccer coaches. *Journal of Sport Behavior, 30*(4), 415-427.
- Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry, 4*, 33-47.
- Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Evaluation of Mindful Sport Performance Enhancement (MSPE): A new approach to promote flow in athletes. *Journal of Clinical Sport Psychology, 3*, 334-356.
- Kelley, B. C. (1994). A model of stress and burnout in collegiate coaches - Effects of gender and time of season. *Research Quarterly for Exercise and Sport, 65*, 48-58.
- Kelley, B. C., & Baghurst, T. (2009). Development of the coaching issues survey (CIS). *The Sport Psychologist, 23*(3), 367-387.
- Kelley, B. C., Eklund, R. C., & Ritter-Taylor, M. (1999). Stress and burnout among collegiate tennis coaches. *Journal of Sport & Exercise Psychology, 21*(2), 113-130.

- Kelley, B. C., & Gill, D. L. (1993). An examination of personal situational variables, stress appraisal, and burnout in collegiate teacher coaches. *Research Quarterly for Exercise and Sport*, *64*, 94-102.
- Kenttä, G., Olusoga, P., & Bentzen, M. (in press). Coaches – Health, Well-being, and Burnout. In: D. Hackfort & R.J. Schinke (Eds.), *The Routledge International Encyclopedia of Sport and Exercise Psychology* (pp. xxx-xxx). London, England: Routledge, Taylor & Francis Group.
- Kidd, B. (2013). Where are the female coaches? *Canadian Journal for Women in Coaching*, *13*, 1-8.
- Knight, C. J., Reade, I. L., Selzler, A. M., & Rodgers, W. M. (2013). Personal and situational factors influencing coaches' perceptions of stress. *Journal of Sports Sciences*, *31*, 1054-1063.
- Knights, S., & Ruddock-Hudson, M. (2016). Experiences of occupational stress and social support in Australian Football League senior coaches. *International Journal of Sports Science & Coaching*, *11*, 162-171.
- Kroll, W. & Gundersheim, J. (1982). Stress factors in coaching. *Coaching Science Update*, *23*, 47-49.
- La Voi, N. M. (2016). Concluding thoughts. Creating change for woman coaches. In N. LaVoi, (Ed.), *Women in sports coaching* (pp. 257-260). London & New York: Routledge.
- Lawrence (2015, January, 20). 'Marco van Basten: Why stress prompted manager to leave role.' *BBC Sport*. Retrieved from <https://www.bbc.co.uk/sport/football/30854083>
- Lee, Y. H. & Chelladurai, P. (2016) Affectivity, Emotional Labor, Emotional Exhaustion, and Emotional Intelligence in Coaching. *Journal of Applied Sport Psychology*, *28*, 170-184.

- Longshore, K., & Sachs, M. (2015). Mindfulness training for coaches: A mixed-method exploratory study. *Journal of Clinical Sport Psychology, 9*(2), 116-137.
- Lundkvist, E. Gustafsson, H., Davis, P., & Hassmén. (2016). Workaholism, home-work/work-home interference, and exhaustion among sports coaches. *Journal of Clinical Sport Psychology, 10*, 222-236.
- Lundkvist, E., Gustafsson, H., Hjälms, S., & Hassmén, P. (2012). An interpretative phenomenological analysis of burnout and recovery in elite soccer coaches. *Qualitative Research in Sport, Exercise and Health, 4*, 400-419.
- Lundqvist, C., Ståhl, L., Kenttä, G., & Thulin, U. (2018). Evaluation of a Mindfulness intervention for Paralympic leaders prior to the 2012 London Paralympic Games. *International Journal of Sport Science & Coaching, 13*, 62-71.
- Mallett, C. J., & Lara-Bercial, S. (2016). Serial winning coaches: People, vision and environment. In, M. Raab, P. Wylleman, R. Seiler, A-M. Elbe, & A. Hatzigeorgiadis (Eds.), *Sport and exercise psychology research: Theory to practice* (pp. 289-322). Amsterdam: Elsevier.
- Maslach, C., & Jackson, S. E. (1986). *MBI: Maslach Burnout Inventory; Manual Research Edition*. Palo Alto, CA: Consulting Psychologists Press.
- McLean, K. N., & Mallett, C. J. (2012). What motivates the motivators? An examination of sports coaches. *Physical Education & Sport Pedagogy, 17*, 21-35.
- McNeill, K., Durand-Bush, N., & Lemyre, P. N. (2016). Understanding coach burnout and underlying emotions: A narrative approach. *Sports Coaching Review, 6*, 1-18.
- Moen, F., Bentzen, M., & Myhre, K. (2018). The role of passion and affect in enhancing the understanding of coach burnout. *International Journal of Coaching Science, 12*, 3-34.

- 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.
- Neff, K. D. & Germer, C. K. (2013). A pilot study and randomized controlled trial of the Mindful Self-Compassion Program. *Journal of Clinical Psychology, 69*(1), 28-44.
- Norman, L. (2010a). Feeling second best: Elite women coaches' experiences. *Sociology of Sport Journal, 27*(1), 89-104.
- Norman, L. (2010b). Bearing the burden of doubt: Female coaches' experiences of gender relations. *Research Quarterly for Exercise and Sport, 81*(4), 506-517.
- Norris, L. A., Didymus, F. F., & Kaiseler, M. (2017). Stressors, coping, and well-being among sports coaches: A systematic review. *Psychology of Sport and Exercise, 33*, 93-112.
- Olusoga, P. & Kenttä, G. (2017). Desperate to quit: A narrative analysis of burnout and recovery in sports coaching. *The Sport Psychologist, 31*, 237-248.
- Olusoga, P., Bentzen, M., & Kenttä, G. (2019). Coach Burnout: A Scoping Review. *International Sport Coaching Journal, 6*, 42-62.
- Olusoga, P., Butt, J., Hays, K., & Maynard, I. W. (2009). Stress in elite sports coaching: Identifying stressors. *Journal of Applied Sport Psychology, 21*, 442-459.
- Olusoga, P., Butt, J., Maynard, I. W., & Hays, K. (2010). Stress and coping: A study of world class coaches. *Journal of Applied Sport Psychology, 22*, 274-293.
- Olusoga, P., Maynard, I., Hays, K., & Butt, J. (2012). Coaching under pressure: A study of Olympic coaches. *Journal of Sports Sciences, 30*, 229-239.
- Olusoga, P., Maynard, I. W., Butt, J., & Hays, K. (2014). Coaching under Pressure: Mental skills training for sports coaches. *Sport & Exercise Psychology Review, 10*, 31-43.

- Pastore, D. L. (1991). Male and female coaches of women's athletic teams: Reasons for entering and leaving the profession. *Journal of Sport Management, 5*, 128-143.
- Pastore, D. L., & Judd, M. R. (1993). Gender differences in burnout among coaches of women's athletic teams at 2-year colleges. *Sociology of Sport Journal, 10*(2), 205-212.
- Pastore, D. L., & Kuga, D. J. (1993). High school coaches of women's teams: An evaluation of burnout levels. *Physical Educator, 50*(3), 126.
- Potrac, P., & Jones, R. L. (2009). Micropolitical workings in semi-professional Football. *Sociology of Sport Journal, 26*(4), 557-577.
- Price, M. S., & Weiss, M. R. (2000). Relationships among coach burnout, coach behaviors, and athletes' psychological responses. *The Sport Psychologist, 14*, 391-409
- Raedeke, T. D. (2004). Coach commitment and burnout: A one-year follow-up. *Journal of Applied Sport Psychology, 16*(4), 333-349.
- Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport and Exercise Psychology, 19*, 396-417.
- Raedeke, T. D., & Kenttä, G. (2013). Coach burnout. In P. Potrac, W. Gilbert, & J. Denison (Eds.), *Handbook of sports coaching* (pp. 424-435). New York, NY: Routledge.
- Raedeke, T. D., Granzkyk, T. L., & Warren, A. (2000). Why coaches experience burnout: A commitment perspective. *Journal of Sport & Exercise psychology, 22*, 85-105.
- Rhind, D. J., Scott, M., & Fletcher, D. (2013). Organizational stress in professional soccer coaches. *International Journal of Sport Psychology, 44*, 1-16.
- Robbins, J. E., Gilbert, J. N., & Clifton, A. M. (2015). Coaching stressors in a Division II historically black university. *Journal of Intercollegiate Sport, 8*, 183-205.

- Roberts, S.J., Baker, M., Reeves, M.J., Jones G., & Cronin, C. (2018). Lifting the veil of depression and alcoholism in sport coaching: how do we care for carers? *Qualitative Research in Sport, Exercise and Health*, 1-17
- Röthlin, P., Birrer, D., Horvath, S., & Holtforth, M. (2016). Psychological skills training and a mindfulness-based intervention to enhance functional athletic performance: design of a randomized controlled trial using ambulatory assessment. *BMC Psychology*, 4(1), 39.
- Rudaz, M., Twohig, M. P., Ong, C. W., & Levin, M. E. (2017). Mindfulness and acceptance-based trainings for fostering self-care and reducing stress in mental health professionals: A systematic review. *Journal of Contextual Behavioral Science*, 6(4), 380-390.
- Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z. (2018). International society of sport psychology position stand: Athletes' mental health, performance, and development. *International journal of sport and exercise psychology*, 16, 622-639.
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2018). *Mindfulness-based cognitive therapy for depression* (2nd ed.). New York, NY: Guilford Publications.
- Smith, R. (1986). Toward a cognitive-affective model of athletic burnout. *Journal of Sport Psychology*, 8, 36-50.
- Song, Y., & Lindquist, R. (2015). Effects of mindfulness-based stress reduction on depression, anxiety, stress, and mindfulness in Korean nursing students. *Nurse Education Today*, 35(1), 86-90.
- Stenling, A., Ivarsson, A., Hassmén, P., & Lindwall, M. (2017). Longitudinal associations between athletes' controlled motivation, ill-being, and perceptions of controlling coach behaviors: A Bayesian latent growth curve approach. *Psychology of Sport and Exercise*, 30, 205-214.

- Tashman, L. S., Tenenbaum, G., & Eklund, R. (2010). The effect of perceived stress on the relationship between perfectionism and burnout in coaches. *Anxiety, Stress, & Coping, 23*(2),195-212.
- Taylor, J. (1992). Coaches are people too: An applied model of stress management for sports coaches. *Journal of Applied Sport Psychology, 4*, 27-50.
- Thelwell, R. C., Wagstaff, C. R. D., Chapman, M. T., & Kenttä, G. (2017). Examining coaches' perceptions of how their stress influences the coach-athlete relationship. *Journal of Sports Sciences, 19*, 1928-1939.
- Thelwell, R.C., Wagstaff, C. R., Rayner, A., Chapman, M., & Barker, J. (2017). Exploring athletes' perceptions of coach stress in elite sport environments, *Journal of Sports Sciences, 35*, 44-55.
- Thelwell, R. C., Weston, N. J. V., Greenlees, I. A., & Hutchings, N. V. (2008). Stressors in elite sport: A coach perspective. *Journal of Sports Sciences, 26*, 905-918.
- Thompson, A., Potrac, P., & Jones, R. (2013). I found out the hard way: micro-political workings in professional football. *Sport, education and society*,(ahead-of-print), 1-19.
- Van Slingerland, K. J., Durand-Bush, N., & Rathwell, S. (2018). Levels and prevalence of mental health functioning in Canadian university student-athletes. *Canadian Journal of Higher Education/Revue Canadienne D'enseignement Supérieur, 48*, 149-168.
- Vealey, R. S., Armstrong, L., Comar, W., & Greenleaf, C. A. (1998). Influence of perceived coaching behaviors on burnout and competitive anxiety in female college athletes. *Journal of Applied Sport Psychology, 10*(2), 297-318.
- Vealey, R. S., Udry, E. M., Zimmerman, V., & Soliday, J. (1992). Intrapersonal and situational predictors of coaching burnout. *Journal of Sport & Exercise Psychology, 14*(1), 40-58.

Wang, J., & Ramsey, J. (1998). The relationship of school type, coaching experience, gender and age to new coaches' challenges and barriers at the collegiate level. *Applied Research in Coaching and Athletics, 13*, 1-22.

Wareham, Y, Burkett, B., Innes, P., & Lovell, G. P. (2017). Coaching athletes with disability: Preconceptions and reality, *Sport in Society, 20*, 1185-1202.