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WHAT FACTORS PREDICT BURNOUT IN SPORTS COACHES? EXPLORING THE ROLE OF PERSONAL AND SITUATION STRESSORS.

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Abstract

Coaching is widely regarded as a stressful position to hold (Robbins et al., 2015; Olusoga et al., 2009) meaning within the field of coaching, practitioners are susceptible to burnout, a psychological syndrome leading to various unwanted issues such as anxiety, depression, insomnia, and fatigue (Maslach, 1982). This study investigates the factors predicting burnout in sports coaches by exploring the role of perceived stress, coaching stress and entrapment as stressors and social support as a moderator. Questionnaires were sent to coaches of various experience levels, ages, sports, and performance levels, with 87 respondents completing it. Using the data collected three multiple linear regressions were completed in SPSS to analyse the relationships between the stressors (perceived stress, coaching stress, and entrapment) and the three dimensions of burnout (emotional exhaustion, reduced personal accomplishment and depersonalisation). In addition to this the moderation effect of social support was investigated using hierarchal multiple linear regression analysis with the PROCESS function (Hayes, 2018) being used in SPSS. The analysis showed a strong correlation between entrapment and all three dimensions of burnout, a correlation between perceived stress and emotional exhaustion, no correlation between coaching stress and the three dimensions of burnout and highlighted that social support moderates the relationships between entrapment, emotional exhaustion, and depersonalisation. It has been concluded that if a coach is experiencing emotional exhaustion, it is possible that entrapment or perceived stress are the cause, and if experiencing any of the three dimensions entrapment is a possible cause. In addition to this it was concluded that social support has a positive impact in reducing two dimensions of burnout for coaches experiencing entrapment.

Keywords: Burnout, Coach, Sport, Predict, Stressor

Introduction

Coaching is widely regarded as a stressful position to hold, both in professional (Robbins et al., 2015) and voluntary (Olusoga et al., 2009) capacities. Although typically more stressors occur at higher levels of coaching with coaches feeling depressed and emotionally exhausted (Olusoga et al., 2010), voluntary grassroots coaches also experience various stressors created through situational variables such as lack of support in contrast to personal stressors: entrapment within the role leading to work and life conflicts (Stebbings et al., 2012).

Burnout is described as "a psychological syndrome developed after prolonged experience to interpersonal and role related stressors" (Rossi et al., 2006). The three dimensions of burnout: emotional exhaustion, depersonalisation and personal accomplishment could be prevented by accurately predicting which stressors directly impact each aspect of burnout (Kania et al., 2009) therefore allowing for the safeguarding of coaches across all levels of sport.

Burnout in coaches (Altfeld et al., 2015) has been discovered to effect athlete's performance, making safeguarding coaches from stressors and burnout a vital consideration for their employers, or clubs in the case of many sports, to allow for consistent performances throughout the season, additionally protecting the mental wellbeing of their workforce and increasing coaching continuity through lower coach turnover rates by identifying both personal and situational stressors and exploring the role of supporting a coach in relation to burnout (Bentzen et al., 2015). I know first-hand of the importance of safeguarding coaches against burnout, as I have previously experienced the psychological syndrome while both working and volunteering in a coaching capacity. This has led to long term issues such as anxiety (Kelley, 1994) and panic disorder (Rössler et al., 2015) impacting my ability to coach. Therefore, the main aim of this study is:

To determine factors predicting burnout in sports coaches by exploring the role of personal and situation stressors.

With regards to typical stressors Lazarus and Folkman (1984) proposed that the process is dynamic between a person (personal variables) and their environment (situational variables). This dynamic situation is influenced by feedback and resources available to the individual and influences one's psychological response including anxiety and their physiological reaction such as increased heart rate. Lazarus and Folkman's proposition has been discussed in coaching situations by Rocchi et al., (2013) through exploring interpersonal behaviours in coaches as laid out by Stebbings et al., (2012).

This research project will be conducted quantitatively and will be structured as follows: a review of literature, a discussion of the methods used in data collection, a presentation of the results of said data collection, a discussion of findings in relation to the field of literature and a conclusion summarising the project.

Review of literature

Introduction

The investigation of coach burnout was first discussed in a sporting setting by Caccese and Mayerberg (1984). As with other theories the original conceptualisation comes from outside the domain of sport, in this instance from Herbert Freudenberger (1974) regarding volunteers. Around the same time Christina Maslach started investigating the phenomenon of a process of gradual exhaustion, leading to her publishing the Maslach Burnout Inventory in 1986.

Although there is a strong literary base of research considering the phenomenon with over 6000 papers discussing burnout in a sporting context (Goodger et al., 2007), there is a lack of research regarding burnout in sports coaches specifically (Lundkvist et al., 2012). The impact of this lack of specific research is widely regarded as a critiqued aspect of the field, with the various authors paradigmatic positions having affected this, with the current literature leading itself to a more detached approach often disregarding coaches as individuals in practice (Goodger et al., 2007). Therefore, this research will be looking specifically at coaches as individuals in practice through quantitative data to address this gap.

In order to contextualise the study, which aims to explore the social and personal predictors of coach burnout, this review will present literature related to five key issues in the following structure: burnout and its three dimensions (emotional exhaustion, depersonalisation, and personal accomplishment), coaching stress, personal stress, entrapment, and social support. Outlining the theory and research underpinning the study will enable the results to be interpreted in a wider context, particularly in relation to the prediction of burnout in coaches, and the findings of the study will be fully explored in relation to previous knowledge.

Framework and Models

One example of an accepted framework within the field is Smith's Cognitive-Affective model of sport burnout (Smith, 1986). The model has previously been used to "examine dispositional, cognitive, and situational predictors of coaching burnout" in a 1992 study by Vealey, et al. Vealy found that it did in fact indicate that burnout may be predicted by personal and cognitive factors as well as situational factors. The model appears to build on Maslach et al., (1986) Maslach Burnout inventory but could now be considered outdated and obsolete in a modern context making it invalid for uses with coaches in 2020 because it does not consider changing modern stressors coaches face, such as COVID-19 (Taku and Arai, 2020). Taku and Arai (2020) discuss how coaches have been directly affected by the COVID-19 pandemic through the lack of time to support their athletes needs while looking after themselves and their families.

Throughout the literature Thomas Raedeke features regularly with articles focusing on athlete and coach burnout. In 1997 and 2001 he discussed the commitment perspective of athlete burnout and conceptualised a preliminary athlete burnout measure, later adapted into the coach burnout questionnaire by Harris and Ostrow (2008) to provide a more effective method for measuring the three dimensions of burnout employing questions with less ambiguity amongst the dynamics (Lundkvist et al., 2014).

More recently since 2014 Erik Lundkvist has become more prominent within coach burnout research. In one journal the evaluation of burnout measures provides a comprehensive review of the measures available to researchers (Lundkvist et al., 2014) and through the discovery of literature gaps (Lundkvist et al., 2016) has helped researchers with their understanding of the limitations of the current literature. Throughout his research into burnout in sports coaches, Lundkvist has not proposed new theories, but has helped summarise the literature for academics

to use. It is not necessarily a framework, but the structure and variety of his reviews will help guide this study.

The main framework guiding this study is the research surrounding the Maslach Burnout Inventory. In the literature Maslach and Jackson (1986) discuss burnout being multi-faceted, with the potential of individuals being affected differently to one another. The discussion of three different dimensions of burnout (depersonalisation, emotional exhaustion and reduced personal accomplishment) is pertinent to the creation of this studies hypotheses. In addition to this Goodger et al., (2007) highlighted the lack of breadth in theoretical framework and conceptualisations to explain how burnout is experienced, this explains why Maslach, and Jackson (1986) received some consensual agreement due to a lack of opposition through the lack of adequate conceptual models making it the most relevant in the field, even though it was developed 35 years ago. This study hosts the potential to discuss the pertinence of the Maslach Burnout Inventory in modern times with the impact of COVID-19 impacting on modern day coaching (Taku and Arai, 2020).

Burnout

There is no definition of burnout widely regarded as unanimous, leading to this being the largest topic for debate in the field of burnout literature (Goodger et al., 2007). Maslach et al., (2001) described it as “a feeling of being overextended and depleted of one’s emotional and physical resources”, whereas Brill (1984) stated burnout to be “expectational mediated, job-related, dysphoric and dysfunctional state in an individual without major psychopathology”. The main difference between the definitions is that Maslach indicates the physical aspect of burnout as well as the emotional one making it more comprehensive. The lack of one universal definition reduces its utility in various fields of research (Brill, 1984) and may affect this study. In addition to this, the unassured nature of the lack of one universal burnout definition could lead to research being

considered inconsistent and therefore less sustainable and harder to replicate, leaving gaps to be explored.

Literature in the field of sports coaches' wellbeing has mainly focused on the concept of burnout (Maslach and Jackson, 1986). They stated three key dimensions, which included emotional exhaustion, depersonalization, and reduced personal accomplishment. Since then, there has been a level of agreement on multidimensional conceptualisations of burnout (Goodger et al., 2007) with very few challenges. Due to Maslach's prevalence in the sporting context of burnout, and the fact that the definition is more recent, the Maslach definition will be used as the current working definition for the purpose of this study.

Depersonalisation explains the notion of coping with the depletion of physical energy by choosing to see people as numbers rather than form psychological connections with them (Maslach, 1982). Depersonalisation takes place when there is "an unfeeling and impersonal response toward recipients of one's service, care treatment, or instruction" (Maslach et al., 1986). This can provoke an overwhelming feeling in teachers, applying to coaches too, when students are unresponsive (Rumschlag, 2017). It was argued by Ashforth and Lee (1990) that depersonalisation constitutes defensive behaviour as a method of coping with psychological strain. A critique of depersonalisation came from Garden (1987) as she proposed that depersonalisation may not be applicable to all individuals due to its varying non-situational nature.

Emotional exhaustion is characterized by chronic fatigue; the feeling of being worn out, loss of energy and debilitation (Pines and Aronson, 1988; Schwarzer, Schmitz and Tang, 2000). It can bring about physical fatigue alongside other psychological disorders, such as insomnia and anxiety, thus deeming it a psychological strain (Maslach & Jackson, 1981). Emotional Exhaustion

is a key factor to be considered because the physiological strain associated with it leads to a major lack of motivation. This often leads teachers (and coaches) to leave the profession (Skaalvik and Skaalvik, 2017). This links with the later examination of entrapment, as lack of motivation is correlated to higher feelings of not being able to leave a current situation.

Reduced personal accomplishment is linked to adaptation in demanding situations (Bandura,1986) thus affecting the want to be in control and self-appraisal of performance-based outcomes (Gecas, 1989). In short personal accomplishment is a feeling of lack of achievement and depends on an individual's perceptions of control related to their motivation to perform (Lazarus and Folkman, 1984). Personal accomplishment is pertinent in the field of teaching (Corbin, et al, 2019), and is relevant in many different capacities. Firstly, the reality of not finishing their workday with tasks left uncompleted impacts on personal accomplishment, as well as a feeling of being overwhelmed due to a demanding situation (Rumschlag, 2017). Both of these link to the four stressors mentioned later with the reality of not finishing the workday correlating with coaching stress and the overwhelming feeling linking to perceived stress.

In general burnout in coaches can be prevalent at any level, from grassroots to paid professional coaches, but appears to effect professional coaches more due to the relentless nature of working with athletes all day, every day (Olusoga et al., 2019). The added pressure of needing high performance outputs to keep a job was a big factor in this increase in professional coach burnout. (Lundkvist et al., 2014). Gender also impacts on coach burnout; unfortunately, female coaches experience higher levels of burnout (Kelley, 1994). This could be explained by the added pressure of needing to 'prove' themselves (Weiss and Stevens, 1993) or by their more nurturing coaching style creating more work (Pastore and Judd, 1993).

Correlates to burnout

When examining stressors correlating to burnout there are three widely discussed groups; psychological (personal), demographic and situational (Goodger et al., 2007). With a greater focus on psychological correlates there appears to be three stand out variables effecting coach burnout: entrapment (Raedeke, 2000), perceived stress (Kelley and Gill, 1993; Kelley, 1994; Malinauskas et al., 2010) and social support (Russell et al., 1987; Kelley, 1992; Kelley, 1994; DeFreese and Smith, 2013). Entrapment and perceived stress have received more attention throughout literature with Raedeke (2000) arguing entrapment to be a significant correlate to coach burnout. Perceived stress is the more frequently cited correlate to coach burnout (Kelley, 1994; Raedeke and Smith, 2004), with social support occasionally argued as a moderator (Kelley, 1994) or as a direct stressor (Tashman et al., 2010). The most predominant situational correlate discussed is coaching stress (otherwise known as coaching issues) (Hendrix et al., 2000; Kelley and Gill, 1993). One issue previously identified by Hendrix et al., (2000) is that perceived stress can correlate to coaching issues causing multicollinearity.

Perceived Stress

Perceived stress is defined as “The degree to which one perceives an event or situation as threatening or demanding and beyond one's coping resources” (Cohen, Kamarck, & Mermelstein, 1983) and can be caused in a sporting context by performance demands, conflicts between training and personal schedule, expectations, and pressures from others (Chyi et al., 2018). Perceived stress is shown to correlate to burnout through various literature with Taylor et al., (1990) discussing that stress had a negative impact on burnout, with burnout correlating to perceived stress over time, this was consistent with the findings of Malinauskas et al., (2010) where they discussed the evident correlation between perceived stress and burnout in coaches in Lithuania.

It has been discussed that relationships among individuals in an athletics context between perceived stress and burnout are not straightforward (Taylor et al., 1990). This is however not to say they do not correlate as mostly all authors agree that burnout is linked to personal stress (Malinauskas et al., 2010). The nature of perceived stress may account for aspects of life stress as well as situational stress, something that future research should consider in relation to psychological responses. This therefore is a subject to consider when discussing the results of the study.

There has been confirmation that perceived stress links to the other variables being discussed, with Hendrix et al., (2000), supporting Smith's theoretical model of stress and burnout. They found that athletic trainers who have lower levels of social support and higher athletic training issues (coaching stress) tended to have higher levels of perceived stress. In relation to burnout an individual with higher levels of perceived stress were more likely to experience higher feelings of a lack of personal accomplishment and experience depersonalisation more, with higher levels of emotional exhaustion (Hendrix et al., 2000). Overall, this means that perceived stress is affected by other variables included in this study (Coaching stress, entrapment, and social support), which may conceive multicollinearity, but Hendrix et al., (2000) discussed that their results were similar to other studies exploring burnout in a sporting context. This suggests minimal impact on the outcome of any research conducted in this study.

Coaching Stress

Coaching stress differs from perceived stress as it is focused on the specificities within coaching, rather than the individuals perceived stress which covers their life stresses as well. Coaching stress is often researched amongst collegiate coaches (Hendrix et al., 2000; Kelley and Gill, 1993) and is considered a critical issue for coaches (Kelley and Gill, 1993). It is defined as an interactional phenomenon in which the individual interprets events within the environment, which determines whether stress exists (Lazarus, 1990; Lazarus & Folkman, 1984). This means that an individual's

interpretation and the environment can influence their stress appraisal which will affect the outcome of their coaching stress levels. This links to similar concepts within the perceived stress variable, with an individual's stress appraisal being affected by multiple factors.

Stress, and coaching issues can be best understood as a difference in the demands individuals perceived in a situation and the potential abilities to adapt to and cope with the demands (Lazarus, 1990). If an individual finds themselves in a situation where the demands outweigh the ability one must overcome the situation then a negative stress response is provoked. The greater this unbalance between ability and demands, the greater the negative psychological or emotional response (Lazarus, 1990), one of which is burnout, "a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems" and "can be considered one form of job stress" (Maslach, 1982).

Coaching Issues were discussed throughout literature (Kelley et al., 1999; Martin et al., 1999) as a key contributor to coach burnout with little challenge, although Kelley and Gill (1993) mention that coaching issues depend on the individuals stress appraisal so may not directly affect burnout. Essentially here we see the potential impact of multicollinearity caused by a potential correlation with perceived stress (Hendrix et al., 2000).

Coaching issues are already included in a model to show the correlation between burnout and various other variables, such as gender and time of season, created by Kelley in 1994. Through her model creation she discusses the need to include coaching stress alongside social support as the problematic issues specific to the coaching situation (Kelley, 1990) and social support satisfaction (Kelley & Gill, 1993; Sarason, Sarason, & Shearin, 1986) can influence an individual's levels of burnout. This links to Kelley et al., (1999) discussing the factors associated

with burnout in tennis coaches, with coaching issues a prevalent factor often linking to levels of social support.

Entrapment

Entrapment has often been discussed in the context of burnout in sports coaches, most prevalently by Raedeke (1997, 2000, 2004) across various articles focused on commitment and burnout. Throughout his research, Raedeke discusses the increasing commitment felt by a coach often leading to them feeling trapped in a situation unlikely to leave, with an additional focus on the link to burnout if a coach remains entrapped in their situation. Entrapment has also been discussed in the context of coaches and athletes by Collins (2003), Gustafsson et al., (2008) and Gould et al., (2009) with the themes remaining consistent across their research; that athletes and coaches feel can entrapped, which impacts on one another's performance. It is described as a phenomenon that occurs when an individual does not want to participate in sport but feel they must maintain their involvement to support their team or athletes, because they are being paid and feel responsible to deliver results or because they are too involved and feel they are integral to the team/individual's success (Raedeke, 1997). In coaching terms an individual may have decreasing attraction to coaching but continue to deliver sessions as they feel they must continue due to having too much invested to quit, they are worried about future career prospects or they are worried about other perceptions of them (Raedeke, 2004). Although contradicting this, Skaalvik and Skaalvik (2017) discuss decreasing attraction (a lack of motivation) as a reason for teachers leaving their profession, meaning entrapment may affect burnout on an individual basis.

Burnout has been linked to entrapment through the dimension of emotional exhaustion, with Collins (2003) discovering that an increased entrapment profile in coaches correlated to an increase in emotional exhaustion. Decreased attraction (an aspect of entrapment) was associated with emotional exhaustion, explaining the link mentioned above and showing a potential link to

burnout. Raedeke (2004) confirmed that entrapped individuals are more prone to burnout because of experiencing a greater degree of emotional exhaustion but cited that lack of personal accomplishment and depersonalisation also played a role in entrapments link to burnout. This study will be used to examine this correlation, among others, to build on the findings of Collins (2003) and Raedeke (2004).

It has been suggested that alternative options available to coaches (such as a new career or starting at another position) are not important when discussing entrapment (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004). This is explained by Rusbult's (1983) relationship research stating that a group of entrapped individuals showed a greater increase in costs showing the focus of those entrapped was not on alternate options, but on the negative aspects of their current situation. Furthermore Raedeke (2004) said it could be considered that the concept of entrapment and its link to burnout could be unreliable due to previous research (Readeke 1997; Rusbult 1983) having shown verified support for the characteristics of entrapment, but not sources of entrapment, meaning it could be argued that there is a blurred line between entrapment characteristics and situations inducing entrapment. In layman's terms, some coaches may be entrapped in a situation, with characteristics not previously considered, meaning a link to burnout may not be discovered in some coaches.

It is important to consider entrapment as a factor effecting burnout because it explains why exhausted coaches continue to battle on despite their levels of burnout suggesting they should make recovery their priority (Hassmén et al., 2019). By looking at the correlation between entrapment and burnout we can better understand the relationship, therefore we can investigate how to reduce the number of coaches burning out through feeling entrapped.

Social Support

Social support is often related to burnout, an example of which being in a model to show the correlation between burnout and various stressors by Kelley in 1994. It is discussed as being the perception that one is satisfyingly cared for as part of an assisted social network, as has help available from close individuals (Russell et al., 1987). A critique of social support literature is the lack of a unified academic definition, only discussions of what it may entail, leading to a lack of certainty among research regarding the constitution of social support.

When looking to examine the personal and situational variables and stress appraisal leading to burnout in collegiate teacher-coaches, Kelly (1992) suggested that higher social support led to a lower stress appraisal, therefore the individual had less chance of burning out. This shows a relationship with positive implications for the coach between social support and burnout, which is supported by DeFreese and Smith (2013) when looking at the relationship between athletes support and burnout. The beneficial nature of this relationship juxtaposes the other variables being investigated in the study, making it a potential candidate for a moderator of the relationship between the negatively correlated variables and burnout. Due to its supporting nature, it can be considered a 'treatment' for burnout. In general people consider receiving help as valuable and good for their well-being (Wood et al., 2010) meaning any social support received can benefit a coaches well-being implying a reduction in burnout experienced, thus fitting in a moderation role.

In the field of sports burnout literature, particularly looking at athletes, social support is mentioned to be an effective moderator. When discussing the interaction of athlete's resilience and coaches' social support on the stress-burnout relationship Lu et al., (2016) found social support to be an effective moderator after an examination the two aspects as conjunctional moderators. This could be relevant in a coaching context as sport satisfaction can be linked to coaching issues and perceived stress, and the satisfaction surrounding low stress. Although discussed in a contest of

coaches supporting athletes, social support has never been discussed as a mediator in a coaching setting leaving a potential gap to be explored.

Conclusion

It has been expressed that, although conceptualised, there is currently less research relating to the correlation of burnout to various stressors in coaches in practical terms, compared to research surrounding the theories and conceptualisations in the subject (Raedeke and Kenttä, 2012). Lundkvist et al., (2016) argued for the use of clinically validated methods allowing us to better understand the conceptualisation of burnout allowing for research into the practical implications more accurately, although there is a strong argument for self-appraisal methods of testing due to them being directly 'in situ' (Loza et al., 2000). This study aims to generate a model to be used in the prediction of coach burnout, although Kelley (1994) produced a model to correlate stress and burnout based on coach gender and time of season, she does not exclusively theorise a method to understand burnout through the three dimensions of burnout in relation to key personal and situational stressors using social support as a moderator due to its positive nature leaving a gap for practical research.

Currently research within the field of coach burnout is very focused on the work of previous pioneers including Kelley, Raedeke and Maslach. Most research is currently conducted to try and understand the theories and conceptualisations within the field (Olusoga, 2019) and even when burnout is looked at in a practical context, such as the study from (Altfeld et al., 2018) focusing on looking at coach burnout in a practical setting using personal and situational stressors, the impact of social support is often forgotten. In addition to this the current practical focus on burnout within sports coaches often only looks at one demographic, for example only looking at high school sports coaches (Lee and Chelladurai, 2018) with less holistic research available.

This study will therefore focus on two prevalent personal stressors (perceived stress and entrapment) and one prevalent situational stressor (coaching stress), as well as examining the often-under-represented moderation effect of social support. The sample will not house demographic constraints (such as gender and level) to provide a more holistic approach. This coupled with the focus on examining theory in practice helps contribute towards the current gap within sports coach burnout literature. The guiding hypothesis will be as follows:

Research Hypothesis

Research Hypothesis (H1): Perceived Stress will positivity correlate to a coach's burnout levels through one or more of the three dimensions.

Research Hypothesis (H2): Coaching Stress will positively correlate to a coach's burnout levels through one or more of the three dimensions.

Research Hypothesis (H3): Entrapment will positivity correlate to a coach's burnout levels through one or more of the three dimensions.

Research Hypothesis (H4): Social support will act as a moderator between at least one stressor (Perceived stress, coaching stress, and entrapment) and a coaches burnout levels through one or more of the three dimensions.

Methodology

Selection and justification of appropriate research methods

This research was conducted quantitatively with a realistic ontological approach. This was beneficial for exploring relationships (Cresswell, 2009) meaning the potential correlations between the stressors (perceived stress, coaching stress, and entrapment), the moderator (social support) and the three dimensions of burnout could be clearly determined and therefore examined against previous understanding of the subject. In addition to this an objectivist epistemology was be adopted, which although limits explanations for behaviours, provides the best method for generalisation of a population (Scriven, 1970) allowing for a greater understanding of the issue overall, which is required when generating a model to understand burnout in sport coaches. Inferential statistics were the most beneficial for this study as they gave large scale generalisations of the population and provided statistical results allowing for analysis through comparison between variables (Sukamolson, 2007). Thus, positivist was the best paradigmatic position for generating a new model that aims to explain the experience of burnout in sport coaches.

Sampling

For this study two sampling methods were considered: probability sampling and non-probability sampling. The former includes choosing samples from a population using probability to choose the most accurate representation of the wider population, whereas the later sample is chosen through the researcher's judgement. Convenience sampling, a form of non-probability sampling, was used for the recruitment of participants. Although not the 'gold standard' method of probability sampling, non-probability sampling, more specifically convenience sampling, was ideal for this study due to time and budget constraints (Leiner, 2014). The participants included coaches aged 18 and over practicing in football, futsal, cricket, netball, tennis, and athletics, with experience and qualification levels from total beginner to professional elite athlete coach. The

participants were practicing across a variety of ages from Under 8's to adult sport. The male and female split was variable based on number of respondents from each gender.

Study Design

This quantitative research was conducted using a non-experimental, correlational, approach. Survey data was collected from a quantitative questionnaire gathering information on coach burnout levels across all three dimensions, as well as: perceived stress, coaching stress, entrapment, and social support. Survey data provides a practical method for systematically collecting data from a broad spectrum of individuals allowing for generalisation of a population (Sapsford, 2006). The self-administered questionnaire was beneficial to provide anonymity, which was especially important when examining a sensitive subject (Sukamolson, 2007) and took approximately 20 minutes to complete. Although the most appropriate method for this research it should be noted that respondent characteristics and missing data could impact the results if improperly handled in the data analysis stage (Sukamolson, 2007).

Instrumentation and Justification for use

The quantitative questionnaire will include five instrumentation.

1. Coach Burnout

The Coach Burnout Questionnaire (CBQ) (Harris and Ostrow, 2008) was used to measure the coach's burnout levels. The measure is a Likert scale adapted from the Athlete Burnout Questionnaire (ABQ) (Raedeke and Smith, 2001), by Harris and Ostrow for research surrounding coaches. The scale has 15 items and each of these items is on a 5-point Likert scale, with burnout levels being determined by the mean score. Within the questionnaire there is three sub scales, one for each dimension of burnout, each consisting of five items. Since adaptation by Harris and Ostrow the CBQ has been used in various studies, including coach burnout and perceived stress in Lithuanian University coaches (Malinauskas et al., 2010) with a Cronbach's alpha of 0.79. It

was deemed the most appropriate measure of coach burnout due to its ability to differentiate between the three dimensions better than the Maslach Burnout Inventory (MBI) and the Oldenburg Burnout Inventory (OLBI) by Lundkvist et al., (2014), allowing us to see which dimension a specific variable has impacted.

2. Perceived Stress

The Perceived Stress Scale (PSS) (Cohen, 1994) was used to measure the levels of perceived stress the participants were experiencing. The measure is a 14 item Likert scale measured across 5 points (0-4) created by Cohen in 1994 to suggest a global measure of perceived stress allowing for more consistent research. The design of the scale lends itself to measuring how uncontrollable and pressured an individual perceives their life to be (Cohen, 1994). It has previously been used in studies investigating coach burnout, such as the study into perceived stress and burnout in Lithuanian university coaches (Malinauskas, et al., 2010). The scale was found to be reliable with a Cronbach's alpha of 0.88. The perceived stress scale was used in this research due to its previously validated reliability and wide scale use making further exploration into this study possible at a later date.

3. Coaching Stress

The Coaching Issues Survey (CIS) (Kelley and Baghurst, 2009) will be used to assess coaching stress relative to individuals' environments allowing us to constitute this as a situational variable. Kelley (2009) modified the survey by separating 30 items specific for the coaching environment on a five-point Likert scale ranging from 1 (no stress) to 5 (extreme stress). As above, a mean score will be calculated for each participant to be used in data analysis. Previous studies (Nikolaos, 2012; Herskedal, 2017) have demonstrated strong internal consistency and reliability of the CIS especially with win-loss stress factors, with Cronbach's alphas of 0.92 and 0.93, respectively. Data analysis by Kelley and Baghurst (2009) prompts good evidence that the CIS is a reliable

(Cronbach's alpha: 0.93) and valid measure, with confirmatory and exploratory factor analyses recommending that the CIS contains a meaningful four-factor structure involving distinct factors: Win-Loss (Lackey, 1986), Time-Role (Capel et al., 1987), Program-Success and Athlete-Concerns (Frey, 2007). This is not particularly relevant to this study due to the use of composite scoring being used in the data analysis, but it is a good consideration for future research allowing to pinpoint causes of burnout further.

4. Entrapment

The Short Defeat and Entrapment Scale (SDES) (Griffiths et al., 2015) will be used to assess the coach's entrapment levels. The SDES is compiled of an 8-item, 5-point Likert scale marked from 0 (Not at all) to 4 (extremely like me). Participants were asked to reflect on their feelings over the previous seven days, and mark accordingly. From this a mean score was generated for use in data analysis. The SDES was tested for validity and reliability, with the results showing that the scale effectively measures entrapment within community samples (Cronbach's alpha: 0.91) (Griffiths et al., 2015). Research into the role of entrapment in athletics coaches (Horn, 2018) showcases the ability for the scale to be administered quickly with less burden on the participants completion in terms of time and effort due to its short form compared to other scales, making it the ideal option for this study with participants engaging with the whole questionnaire due to it not taking them too long to complete.

5. Social Support

The 6-item short form of the Social Support Questionnaire (SSQ6) (Sarason et al., 1987) was used to examine the levels of social support received by participants. The short form questionnaire is an efficient instrument for assessing two distinct facets of perceived social support; Availability and Satisfaction (Sarason et al., 1987). For the purposes of this research the only measure taken from the instrument will be satisfaction of support allowing for support appraisal to be measured

as a correlate. Availability is excluded because of the positive correlation between the two facets only being weak therefore showing the size of the network is outweighed by the quality (Sarason et al., 1987), showing that the most effective measure of Social Support is Satisfaction. For each of the 6 items the participants expressed their satisfaction with regards to their support network on a 6-point Likert scale. A mean score for Satisfaction was generated, which varies from 1-6. When adapting the scale for French use Rascle et al., (2005) discovered that validity (Cronbach's alpha: 0.81) and reliability were satisfactory, which was seen in research into dimensions of coach welfare (Reinboth et al., 2004).

Selection and justification of appropriate analysis

Data Analysis

For data analysis quantitative analysis through IBM SPSS statistics (SPSS, 2009) was used. Firstly, in order for reliable outputs from the analysis data to be entered in the correct format by reversing negatively worded questions. Once all data had been reversed, mean scores for each variable unique to each participant were calculated and the data set was checked. When the data had been prepared three multiple linear regressions were ran using SPSS. Standard multiple linear regressions enter all independent variables at the same stage of the equation to explain the variation in a dependant variable through correlations (Pallant, 2013). Across three regressions the three independent variables remained constant: perceived stress, coaching stress, and entrapment. The three dependant variables used were depersonalisation, physical exhaustion, and personal accomplishment, in three separate regressions. Each regression generated data to determine the correlation between the three independent variables and each aspect of burnout (dependant variables). This method has allowed this research to examine the prediction of which stressors (Independent Variables) will affect the coaches levels of burnout (Dependant Variables) in regards each separate burnout dynamic (Kania et al., 2009) making this analysis ideal for this research. An additional stage of data analysis was conducted to examine the hypothesis that social support

acts as a moderator between at least one stressor (Perceived stress, coaching stress, and entrapment) and a coaches burnout levels through one or more of the three dimensions. To do this a hierarchical multiple regression analysis was conducted allowing for the investigation of the moderating effects of social support, potentially showing us its mitigating effects against burnout in coaches. This will help us explore the multifaceted nature of burnout in sports coaches in greater detail.

Results and Analysis

Table 1
Descriptive Statistics

	Mean	Std. Deviation	Cronbach's Alpha
Reduced Personal Accomplishment	2.15	.63	.79
Emotional Exhaustion	2.24	.89	.92
Depersonalization	1.97	.79	.85
Coaching Issues	2.24	.59	.94
Entrapment	.65	.79	.91
Perceived Stress	1.76	.64	.88
Social Support	2.25	1.07	.95

All the Cronbach's Alpha's were over the 0.7 threshold set out by Nunnally (1978) showing every scale used to measure responses were reliable. On average coaches are relatively happy in their positions with lower levels of burnout across the three dimensions and are content with the levels of support they receive from significant individuals in their life. For every measure, the standard deviation was 1 or below showing little variation in responses and a consistency among how coaches are feeling.

Table 2

Correlation Matrix

	Reduced Accomplishment	Emotional Exhaustion	Depersonalization	Coaching Issues	Perceived Stress	Entrapment	Social Support
Reduced Accomplishment	1						
Emotional Exhaustion	.52	1					
Depersonalization	.73	.6	1				
Coaching Issues	.27	.52	.42	1			
Perceived Stress	.5	.03	.58	.62	1		
Entrapment	.01	.01	.01	.6	.67	1	
Social Support	-.34	-.5	-.55	.64	.09	.56	1

Significant Correlations = $p < 0.05$

When looking at correlations between the three predictor variables and the three dimensions of burnout all the relationships expect three are between .46 and .67 showing a medium correlation having a positive effect on the dimension. The correlation between coaching issues and reduced personal accomplishment (.273) is weaker than the others showing that relationships exist, but in a less prevalent capacity. Unsurprisingly there are three negative correlations found between social support and the dimensions of burnout showing that social support is a beneficial factor to coaches. The weakest correlation was found between After it was discussed in literature that the correlation between coaching issues and perceived stress could cause multicollinearity (Hendrix et al., 2000) it was important to examine the relationship between them. The correlation was .601, still only a medium correlation with the R-square values normal meaning multicollinearity is not occurring.

Linear Regression Examining the relationship between Reduced Personal Accomplishment and the three predictor variables (Coaching Issues, Perceived Stress and Entrapment)

A multiple linear regression was conducted to examine the relationship between reduced personal accomplishment and the three predictor variables. Descriptive statistics and internal reliability

estimates can be found in table 1. The R-square value for this regression was .28 showing that the three predictor variables are responsible for 28% of variance in reduced personal accomplishment. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (3, 86)$ 4.86, $p = 0.04$) indicating that the model was meaningful. Coaching issues was not related to reduced personal accomplishment (β=-.13, $p > .28$), entrapment was significantly related to reduced personal accomplishment (β=.42, $p < .01$) and perceived stress was not related to reduced personal accomplishment (β=.24, $p > .06$). Significant path coefficients are indicated in figure 1.1.

Linear Regression Examining the relationship between Emotional Exhaustion and the three predictor variables (Coaching Issues, Perceived Stress and Entrapment)

Another multiple linear regression was conducted to examine the relationship between emotional exhaustion and the three predictor variables. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .48 showing that the three predictor variables are responsible for 48% of variance in emotional exhaustion. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (3, 86)$ 24.1, $p = 0.01$) indicating that the model was meaningful. Coaching issues was not related to emotional exhaustion (β=-.12, $p = .27$), entrapment was very significantly related to emotional exhaustion (β=.41, $p = .01$) and perceived stress was moderately related to emotional exhaustion (β=.25, $p = .03$). Significant path coefficients are indicated in figure 1.1.

Linear Regression Examining the relationship between Depersonalization and the three predictor variables (Coaching Issues, Perceived Stress and Entrapment)

A third multiple linear regression was conducted to examine the relationship between depersonalization and the three predictor variables. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .35 showing that the

three predictor variables are responsible for 35% of variance in depersonalization. The results of the associated ANOVA showed that this was a significant amount of the variance (F = (3, 86) 15.02, p = .01) indicating that the model was meaningful. Coaching issues was not related to depersonalization (β=-.07, p = .55), entrapment was very significantly related to emotional exhaustion (β=.46, p = .01) and perceived stress was not related to emotional exhaustion (β=.11, p = .38). Significant path coefficients are indicated in figure 1.1.

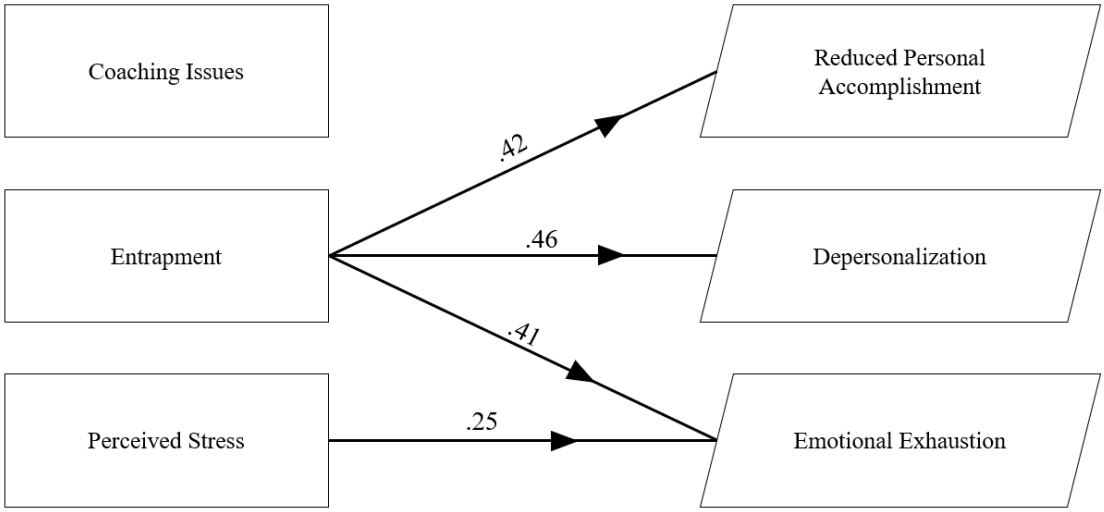

Figure 1.1: significant pathways between the three dependant variables (reduced personal accomplishment, emotional exhaustion, and depersonalization) and the three predictor variables (coaching issues, entrapment, and perceived stress

Social Support as a moderator

To test the hypothesis that Social support will act as a moderator between at least one stressor (Perceived stress, coaching stress, and entrapment) and a coaches burnout levels through one or more of the three dimensions (H4) a hierarchical multiple regression analysis was conducted. In the first step nine linear regressions with an interaction term were conducted to determine whether the possibility of moderation could occur and pinpoint the interactions where it was possible. To

be selected to be examined further the interaction between the variables must account for significantly more variance than the variables alone. The two potentially significant moderations to investigate further were:

1. The moderation effect between social support and entrapment on emotional exhaustion (R squared change 0.24).
2. The moderation effect between social support and entrapment on depersonalisation (R squared change: 0.19).

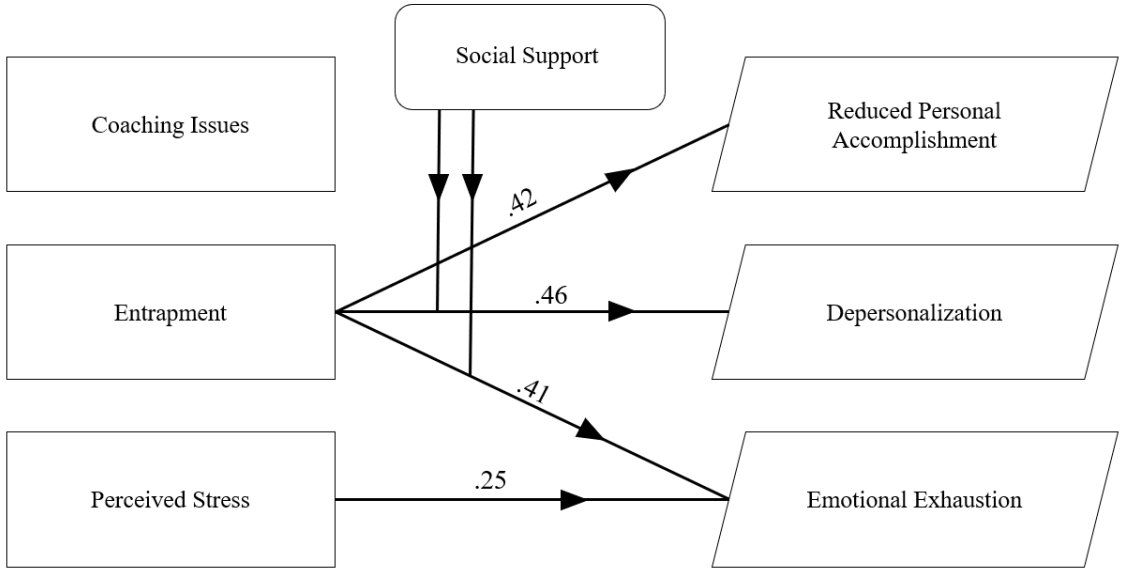

Figure 1.2: Significant pathways between the three dependant variables (reduced personal accomplishment, emotional exhaustion, and depersonalization) and the three predictor variables (coaching issues, entrapment, and perceived stress) with the addition of social support as a moderator.

Moderation effect on Emotional Exhaustion

In the first step of the hierarchal analysis two variables were included: entrapment and social support. These variables accounted for a significant amount of variance in emotional exhaustion levels in coaches: R^2=.43, F (2, 87) =35.03, p=.01. To avoid any potential multicollinearity with

the interaction term the variables were centred and an interaction term between entrapment and social support was created (Aiken & West, 1991).

In the second step of the hierarchal analysis the interaction term between entrapment and social support was inputted into the regression model using the PROCESS function (Hayes, 2018), which accounted for significant proportion of the variance in emotional exhaustion: ΔR^2=.24, ΔF (1, 86) =3.88, p=.01, b=-.12, t (86) = -1.97, p=.01. Examination of the interaction graph (figure 1.3) shows that as entrapment and social support increased, emotional exhaustion increased also. High levels of social support are seen to lead to lower levels of entrapment thus lower levels of emotional exhaustion.

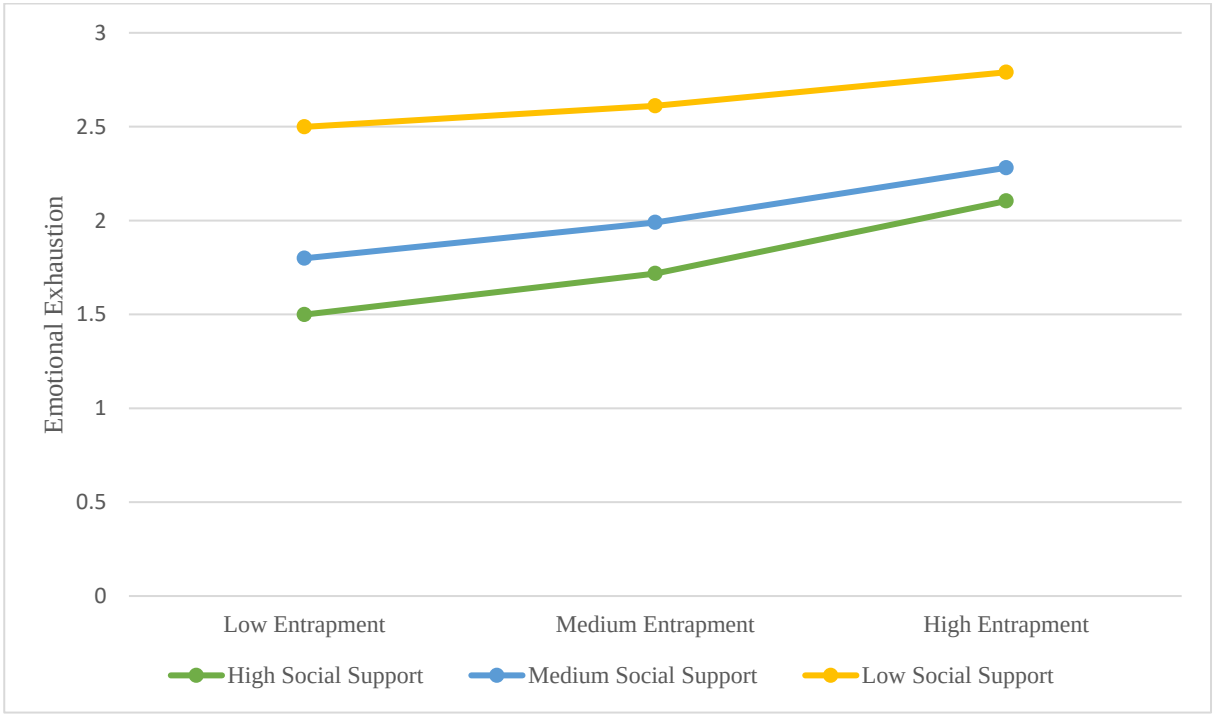

Figure 1.3: Interaction graph depicting the moderation effect between social support and entrapment on emotional exhaustion.

Moderation effect on Emotional Exhaustion

In the first step of the hierarchal analysis two variables were included: entrapment and social support. These variables accounted for a significant amount of variance in emotional exhaustion

levels in coaches: R^2=.4, F (2, 87) =29.8, p=.01. As above, to avoid any potential multicollinearity with the interaction term the variables were centred and an interaction term between entrapment and social support was created.

In the second step of the hierarchal analysis the interaction term between entrapment and social support was inputted into the regression model using the PROCESS function (Hayes, 2018), which accounted for significant proportion of the variance in emotional exhaustion: ΔR^2 = .19, ΔF (1, 86) = 2.7, p= .01, b=-.1, t (86) = -1.63, p= .01. Examination of the interaction graph (figure 1.4) shows that as entrapment and social support increased, emotional exhaustion increased also. High levels of social support are seen to lead to lower levels of entrapment thus lower levels of emotional exhaustion.

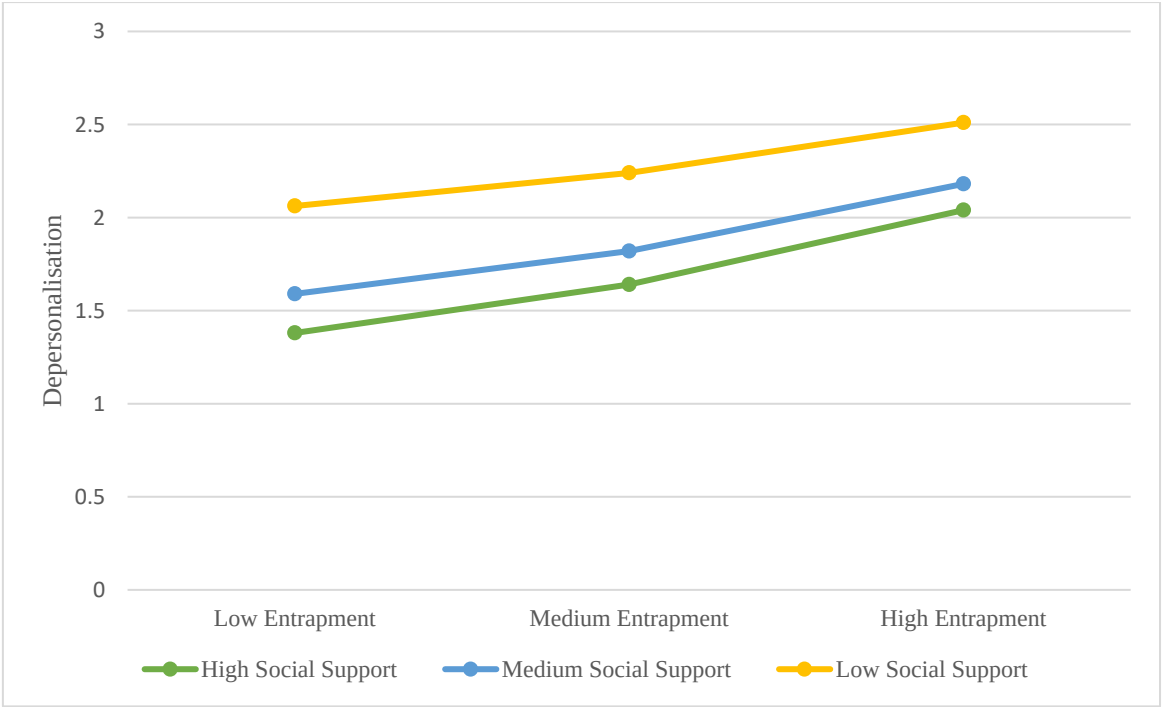

Figure 1.4: Interaction graph depicting the moderation effect between social support and entrapment on depersonalisation.

Discussion

The aim of this research was to develop a greater understanding of the factors predicting burnout in sports coaches, with a particular focus on exploring the role of personal and situation stressors. Findings focus on the causes of the three dimensions of burnout in relation to perceived stress, coaching stress, and entrapment, with an additional examination of the moderating effect of social support. Overall burnout levels were low with the mean score for each dimension showing this, which is a positive for the coaching community. Although burnout levels were generally low, participants did indeed show corelations between the stressors and burnout levels, although entrapment was the standout correlate to all three dimensions of coach burnout. The three predictor variables (perceived stress, coaching stress, and entrapment) were found to be responsible for the variance in reduced personal accomplishment (28%), emotional exhaustion (48%) and depersonalisation (35%). This remains consistent with trends in the past literature with Hendrix et al., (2000) and Malinauskas et al., (2010) discussing the impact of perceived stress on burnout, Kelley (1994) and Martin el al., (1999) finding the impact of coaching stress on burnout and Raedeke (1997, 2000, 2004) and Collins (2003) presenting the impact of entrapment on burnout.

Entrapment and its correlation with the three dimensions

Three of the four significant correlations discovered are between entrapment and the three dimensions of burnout: Reduced personal accomplishment ($\beta=.42$, $p < .01$), emotional exhaustion ($\beta=.41$, $p < .01$) and Depersonalisation ($\beta=.46$, $p < .01$). This demonstrates that entrapment has a significant effect on a coach's likelihood of burnout, explaining Raedeke's (2004) discussion of entrapment through lack of alternate attractive offers being a primary cause for coach burnout. The correlation to all three dimensions of burnout could be explained by the financial need to be paid or that they feel integral to the team or individual's success and do not want to leave them in disarray (Raedeke, 1997). The results of this study build on the findings of Raedeke (2004) by focusing on the three dimensions of burnout created by Maslach and Jackson (1986) which allows

us to further break down the relationship between entrapment and burnout in coaches. Of the three correlations, entrapment is most likely to lead to depersonalisation (β=.46) suggesting that coaches experiencing symptoms of depersonalisation, such as reduced social skills (Maslach, 1982), a cold and robotic persona (Rumschlag, 2017) and defensive behaviour when given constructive criticism (Ashforth and Lee, 1990) should evaluate whether they feel trapped in a situation. If so, the practical recommendation would be to reduce commitment loads (Raedeke, 2004) and spread responsibility amongst other coaches if possible, both aimed at reducing the individual's entrapment levels, and therefore mitigates their risk of eventually burning out.

The other prevalent correlations between entrapment emotional exhaustion (β=.41, p = .01) and feelings of reduced personal accomplishment (β=.42, p = .01) are still strong indicators of entrapments impact on a coach's likelihood of burnout. The link between entrapment and emotional exhaustion could be explained by the element of entrapment in which individuals feel like they have no more 'fight' to give (Gould, et al., 2009) showing a potential link to precursory depression thoughts, an element of emotional exhaustion. The correlation of entrapment to feelings of reduced personal accomplishment could be interpreted through the overwhelming nature of both entrapment (Raedeke, 2004) and reduced personal accomplishment (Rumschlag, 2017). It is important to safeguard coaches from all three dimensions of burnout as it has been discovered to affect athlete's performances (Altfeld, et al., 2015). With this study looking at burnout in a more complex context through examining the three different dimensions of burnout, compared to Readeke (2004) only looking at burnout as one entity, there is potential for future research, using this principle, to attempt to predict and pinpoint the causes of a coach's burnout levels in relation to how entrapped they feel, and use this information to safeguard them from a full-scale burnout incident.

Perceived Stress' correlation to Emotional Exhaustion

The remaining significant correlation was found between perceived stress and emotional exhaustion (β=.25, p = .03), portraying a moderate correlation between the two variables. The correlation was anticipated through the emotional characteristics shared by the two variables, with anxiety and insomnia featuring across both (Maslach and Jackson, 1981). Based on this, coaches experiencing burnout through feeling worn out (Pines and Aronson, 1988), physical fatigue (Schwarzer, et al., 2000) and psychological strains (Maslach and Jackson, 1981) in conjunction with one another should assume that it is a result of high levels of perceived stress. As stated previously this potential to predict the origin of burnout in individual coaches could have beneficial practical implications for both coaches and employers alike by using it to safeguard themselves or their workforce (Bentzen et al., 2015) and bring about both coach wellbeing and continuing of work, which in turn could lead to a greater performance output (Altfeld et al., 2015).

Moderation effect of social support

The findings of this study indicate a moderating effect of social support on the relationship Between both entrapment and two dimensions of burnout: emotional exhaustion (ΔR^2=.24, ΔF (1, 86) =3.88, p=.01, b=-.12, t (86) = -1.97, p=.01) and depersonalisation (ΔR^2 = .19, ΔF (1, 86) = 2.7, p= .01, b=-.1, t (86) = -1.63, p= .01).

Moderation of Entrapment and Emotional Exhaustion

The interaction graph (figure 1.3) shows that, as expected, increased entrapment leads to an increase in the participants feeling emotionally exhausted. However, as social support increases, overall levels of emotional exhaustion in participants decreases. We see a substantial difference in emotional exhaustion levels between those participants receiving low social support from their network of family and peers, and those in receipt of high levels of social support. This highlights

the beneficial nature of social support for coaches and reinforces the need to better support coaches throughout their coaching journey (Lundkvist et al., 2014).

Moderation of Entrapment and Depersonalisation

The interaction graph (figure 1.4) highlights that increased entrapment leads to an increase in the coaches involved stating higher levels of depersonalisation. In contrast, as social support increases, overall levels of depersonalisation in participants decreases. We see a substantial difference in depersonalisation between those participants receiving low social support from their network of close individuals (Russell et al., 1987), and those in receipt of high levels of social support.

The Moderation effects

The moderating effects of social support in relation to burnout have previously been discussed in the context of the stress-burnout relationship, in which it was found to be an effective moderator after the two variables were investigated as conjunctional moderators (Lu et al., 2016). They have also been explored by Kelley (1994) in her creation of a model to predict burnout in collegiate coaches based on gender and time of season. Mentioned in the study is the relationship between entrapment and burnout, with the potential for social support to have a moderation effect, of which she recommends exploring further. Building on this, my study has highlighted the aforementioned moderation effects leading to practical positives for the coaching community in regard to burnout, supporting the findings suggesting that the moderation effect of social support on the relationship between stressor variables and burnout has positive implications for coaches. One can assume that there is a potential to reduce the risk of a coach burning out by improving the social support available to them, either by providing peer to peer support or by providing their families with advice for supporting their coaching journey, in general this help will benefit the coach's well-being (Wood et al., 2010).

Findings in relation to hypotheses

The findings of this study provide support for H1 (Stated in chapter 2) through the discovery of the positive correlation between perceived stress and emotional exhaustion (β=.25, p = .03). The support provided could be interpreted as a useful tool for coaches as it infers that if a coach is experiencing emotional exhaustion, there is a probability that it is being caused by their perceived stress levels (Kelley, 1994). The useful aspect comes when coaching practitioners use this information to pinpoint the cause of potential burnout and generate measures to mitigate against it.

The results generated by this do not support H2 (Stated in chapter 2). This is because none of the three dimensions of burnout showed significant positive correlations to coaching stress. This is interesting because this hypothesis housed the only situational stressor, which contrasts with Kelley (1994) finding situational stressors to have an impact on burnout in coaches, with Kelley et al., (1999) building on this understanding by examining coaching stress in tennis coaches and Martin et al., (1999) stating a consensual agreement of the involvement of coaching stress in coach burnout. This anomaly (in the scope of coach burnout research) could be explained by the linear nature of this research project with the time restrictions imposed by hitting a submission deadline. A longitudinal study, such as the one conducted on tennis coaches by Kelley et al., (1999), would have provided an ability to assess the changing levels of coaching stress throughout the season and gained a more comprehensive understanding of the impact of coaching stress. It has been argued previously that multicollinearity can occur between coaching stress and perceived stress due to the individuals stress appraisal differing from one another (Hendrix et al., 2000). This was examined through the advice of the research from Hendrix et al., (2000), but only a medium correlation (.60) occurred with the R-square values normal meaning multicollinearity did not occur.

Through the results of this study, we can see strong support for H3 (Stated in chapter 2). When looking at the correlation between entrapment and the three dimensions, each pathway provided a strong positive correlation (Reduced personal accomplishment (β=.42, $p < .01$), emotional exhaustion (β=.41, $p < .01$) and Depersonalisation (β=.46, $p < .01$)). The support for this hypothesis provided could be interpreted as useful information for coaching practitioners as it infers that if a coach is experiencing burnout as a whole, there is a probability that it is being caused by entrapment (Kelley, 1994).

The moderating effect of social support on entrapment's relationships with emotional exhaustion (figure 1.3) and depersonalisation (figure 1.4) provides support to the last hypothesis, H4 (Stated in chapter 2). The support for this hypothesis therefore provides support for the discussion of social support being a potential moderator between stressors and burnout within the field. Kelley (1994) explored the creation of a model to predict burnout in sports coaches and proposed social support as a moderator between entrapment and burnout with further analysis of its moderation potential being found through the examination burnout in relation to resilience and social support (Lu et al., 2016). Practically, this should prompt coaching practitioners and organisations to increase the social support available to coaches in order to safeguard them psychologically (anxiety and insomnia from emotional exhaustion and defensive mindset from depersonalisation) and physically (caused by fatigue experienced by emotional exhaustion) from burnout.

Unexpected Findings

Coaching stress' lack of correlation

From the literature surrounding coach burnout I was expecting to see coaching stress corelate to at least one, if not more, of the dimensions of burnout. Coaching stress was discussed in relation to the creation of a model to predict burnout in sports coaches, with it being found to significantly correlate to burnout (Kelley, 1994) Building on these finding Kelley et al., (1999) examined

coaching stress in tennis coaches and again found that more coaching stress led to higher levels of burnout in coaches. Furthermore, it has been stated that it could be argued for consensual agreement of the negative effects of coaching stress and burnout Martin et al., (1999). Compared to the current pool of literature available, the result here is an anomaly. Coaching stress is considered a key issue for coaches (Kelley and Gill, 1993), with the interactional phenomenon occurring on an individual basis (Lazarus, 1990), we must consider the impact of conducting this survey during the COVID-19 pandemic. Coaches may have not been coaching for several months therefore lost sight of any stress appraised during the usual coaching season. Despite this, the lack of a significant path between coaching stress and the three dimensions of burnout is surprising considering coaching issues and stress have been discussed throughout the literature (Kelley et al., 1999; Martin et al., 1999) with no prominent challenges to the findings. It has previously been discussed that social support satisfaction can influence a coach's levels of coaching stress (Sarason et al., 1986; Kelley and Gill, 1993) which could have explained this anomaly if there was a positive corelation between the two, but again there was no significant relationship evident ($p=.64$).

Perceived Stress' single correlation

Although not a surprise that perceived stress held a relationship with emotional exhaustion with, the correlation being expected because of the various emotional characteristics shared by the two variables (anxiety and insomnia and psychological strains (Maslach and Jackson, 1981), feeling worn out (Pines and Aronson, 1988) and physical fatigue (Schwarzer, et al., 2000), it came as a point of interest that perceived stress did not show a direct correlation to depersonalisation. The assumption that they would correlate comes from the aspect of conflict and strained relationships (Chyi et al., 2018). However, the lack of a relationship can be explained by the complex relationships between athletes and coaches being hard to navigate and differing for individuals (Taylor et al., 1990). We may have been able to see a correlation if this study was conducted

longitudinally as perceived stress is known to impact burnout over time (Malinauskas et al., 2010), something to consider in future research surrounding the topic.

Limitations

As with any research there are potential limitations to this study. There are two possible limitations in the study's design, these were debated in the proposal phase of the project, but the design used was deemed more appropriate for this context of this study and the deadline imposed. The first possible limitation was the time constraint because of the hand in deadline, this limited the possibility for a longitudinal study, although Kelley (1994) used a linear study when constructing her model for burnout in coaches showing its merit. The second possible limitation is the sample size. This study falls short of the suggested sample size (100-200 subjects) set out by Sandelowski (1995) with 87 respondants, but he goes on to state that sample size is ultimately a matter of judgement from the researcher in evaluating the quality of information collected so it could be argued that the sample size was relevant.

Opportunities

The first opportunity to progress this research further would be to conduct a longitudinal study to test the results of the model generated, this will give us a chance to discover the effects of a season of sport on coach's burnout levels and the corelates to it. The second opportunity would be to further investigate the moderation effect of social support on the various dimensions of burnout to attempt to understand the most efficient and successful way to provide sports coaches support for mitigating burnout in across their coaching journey. The practical implications of these developments using previous literature, predominantly Kelley (1994), combined with this study as a foundation, would be hugely beneficial to the coaching community.

Conclusion

Through its exploration into the factors predicting burnout in sports coaches, this project has found that two of the three stressors discussed are causes of burnout and could be used to predict a coach's likelyhood of burnout based on which stressor they're experiencing. The findings indicate that entrapment correlates to all three dimensions of burnout, percived stress correlates to emotional exhaustion and surprisingly coaching stress does not correlate to any of the three dimensions of burnout. In addition to this social support was found to be a moderator of the relationships between entrapment, emotional exhaustion and depersonalisation, which builds on Kelley's (1994) work in determinging social support as a moderator between several stressors (entrapment included) and burnout. Using her foundation, this study broke down the relationship further by investigating its effect on each individual dimension of burnout. This extra layer could be very valuble to the coaching community by allowing them to focus social support resources to the most effective places.

Overall, this research contributes to the wider academic field by building on Kelley's (1994) model for predicting burnout in coaches, and by providing a platform for further research into predicting burnout by measuring the three dimensions separately as discussed by Maslach (1982). Further research should focus on further examination of the moderation effect of social support with a potential to use this to focus support in the most efficient way and on the correlation between coaching stress and the three dimensions of burnout as the findings of this aspect of the study appear to be an anomaly.

The main aim of the project was met as factors predicting burnout in sports coaches were explored, focussing on the role of personal (perceived stress and entrapment) and situation (coaching stress) stressors laying a foundation towards being able to pinpoint and predict burnout in coaches to help safeguard them for the psychological syndrome. Why do we need to do this? There are several reasons. Firstly, to provide effective emotional support to help maintain a coach's well-being as

is the responsibility of an employer or practitioner, secondly to provide coaching continuity which better supports athletes. This links to the third point of maintaining and improving performances, which is a benefit to all stakeholders within sport, not just within the coaching community.

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