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THE IMPACT OF ENTRAPMENT: EXPLORING THE ROLE OF ENTRAPMENT IN
COACH BURNOUT.

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This study is dedicated to those coaches who battle with their mental well-being.

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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 relationship between entrapment and burnout in sports coaches by exploring its correlation with the three dimensions of burnout: emotional exhaustion, reduced personal accomplishment and depersonalisation. Additionally, the role of social support as a moderator (Kelley, 1994) was explored further. Online surveys were sent to coaches of various experience levels, gender, ages, sports, and performance levels, with successful completion from 238 participants.

The data collected was analysed using Pearson Correlation Coefficients, simple linear regressions, independent sample t-tests, and a hierarchal regression analysis in SPSS. Analysis showed a strong correlation between entrapment and burnout ($r(234) = .624, p < .001$), entrapment and emotional exhaustion ($\beta = .76, p < .001$), entrapment and reduced personal accomplishment ($\beta = .36, p < .001$) and depersonalisation ($\beta = .53, p < .001$). In addition to this the moderation effect of social support was investigated using hierarchal multiple linear regression analysis with the PROCESS function (Hayes, 2018), with no moderation interaction being discovered. Furthermore, a correlation between social support and the three dimensions of burnout was discovered. It has been concluded that if a coach is experiencing any of the three dimensions of burnout entrapment is a probable cause. Recommendations for further research and for practical considerations (such as including entrapment and its relationship to burnout in policy and practice) for coaching organisations are stated in this study.

Keywords: Burnout, Coach, Sport, Entrapment, Support

Introduction

A coach's position is widely considered to be stressful, regardless of whether they are working for a paid or voluntary organisation (Olusoga et al., 2009; Robbins et al., 2015) with burnout being a key factor to consider when discussing coach wellbeing (Lundkvist et al., 2012). Typically, elite level coaches experience more pressure, therefore experience more stress with this being linked to feeling depressed and emotionally exhausted (Olusoga et al., 2010). However, voluntary grassroots coaches also experience psychological stress through various stressors including situational variables, such as lack of social support, and personal variables, such as entrapment leading to work and life conflicts (Stebbing et al., 2012).

Rossi et al. (2006) define burnout as "a psychological syndrome resulting from prolonged exposure to interpersonal and role-related stressors" and is comprised of three dimensions: emotional exhaustion, depersonalisation, and personal accomplishment (Maslach and Jackson, 1986). Overall, research into burnout as a phenomenon is vast with over 6000 journal articles, books, chapters and dissertations published on the subject (Schaufeli et al., 2009) whereas coach burnout specifically has a minimal literary field in comparison with only 30 coach burnout related studies conducted up until 2013 (Raedeke and Kentta, 2013). This is supported by Lundkvist et al. (2012) mentioning that there is a lack of research regarding burnout in sports coaches specifically. Therefore, gaps in our understanding are large and frequent (Raedeke and Kentta, 2013) leaving scope for this study to contribute to the literary field as there is currently no research examining entrapment in relation to coach burnout while considering the role of social support.

Burnout in sport coaches has been discussed across four decades by various authors (detailed in the literature review), with practical justification for research into the field including to

mitigate against any negative effects a coach's burnout may have on the athletes working with them, to safeguard coaches' mental well-being and to allow for consistent performances throughout the season (Altfeld et al., 2015). For organisations and employers research into coach burnout is beneficial as it allows them to better understand how to protect the mental wellbeing of their workforce, thus increasing coaching continuity through lower coach turnover rates by identifying both key stressors and exploring the role of supporting a coach in relation to burnout (Bentzen et al., 2015).

Expanding the knowledge base on coach burnout is important (Raedeke and Kentta, 2013) as burnout is thought to be associated with a variety of negative factors such as increased turnover, increased mental and physical health problems and decreased performance (Maslach et al., 2001). By expanding the knowledge base there is a greater potential for innovation to combat the issues. Furthermore, burnout has a detrimental effect on the athletes performing under the coach (Vealey et al., 1998; Price and Weiss 2000), meaning professional sporting organisations could gain performance by safeguarding their coaches.

Entrapment has often been discussed in the context of burnout in sports coaches (Raedeke, 1997; Raedeke, 2000; Raedeke, 2004). Raedeke discusses the impact of increasing commitment felt by a coach, with it often leading to them feeling trapped in a situation and unlikely to leave (entrapment). There is a clear link to burnout if a coach remains entrapped in their situation making it important to consider entrapment as a factor effecting burnout. This would explain 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 relationship between entrapment (including elements effecting entrapment) and burnout (across the three dimensions) we can better understand the relationship, therefore we can

investigate how to reduce the number of coaches suffering burnout through feeling entrapped (Woodruff, 2021).

Due consideration must go towards the moderating effect of social support as a greater understanding of this interaction may allow for more robust support services for sport coaches thus decreasing their chance of burning out (Woodruff, 2021). Social support is often discussed in relation to burnout, an example being Kelley's (1994) model to show the correlation between burnout and various stressors. Russell et al. (1987) discusses social support as being the perception of an individual that one is satisfyingly cared for as part of an assisted social network, as well as having help available from close individuals, for example peers, family and friends. Social support is mentioned as an effective moderator within the field of sports burnout literature with Lu et al. (2016) finding it to be an effective moderator when discussing the interaction of athlete's resilience and coaches' social support on the stress-burnout relationship. Additionally, Woodruff (2021) found the relationship between entrapment and two burnout dimensions (emotional exhaustion and depersonalisation) to be moderated by social support in a small cohort of coaches (n=86).

Both Kelley (1994) and Woodruff (2021) discuss the possibility that burnout in a sport coaching setting could be prevented by accurately predicting the stressors (in this case entrapment) that directly impact each of the three dimensions of burnout (Kania et al., 2009), therefore safeguarding coaches across all levels of sport. When considering the importance of safeguarding coaches against burnout and entrapment I have first-hand experience as I previously experienced the psychological syndrome while feeling trapped coaching in both professional and voluntary capacities. This has led to long term issues such as anxiety (Kelley,

1994) and panic disorder (Rössler et al., 2015) impacting my ability to coach ultimately ending in a complete step back from coaching. Therefore, the main aim of this study is:

To examine the relationship between entrapment, social support and burnout while providing a more comprehensive understanding of the relationship to be implemented practically when considering mitigation against coach burnout.

This research project will be conducted quantitatively and will be structured as follows:

- A review of literature to place this study within the literary field
- A discussion of the methods used in data collection.
- A presentation of the results of said data collection.
- A discussion of key findings in relation to the field of literature.
- Conclusion summarising the project, including recommendations for the future direction of this research.

Literature Review

Introduction

The investigation of coach burnout was first discussed in a sporting setting by Caccese and Mayerberg (1984) when they sought to determine how gender effected burnout amongst collegiate coaches. As with other theories the original conceptualisation comes from outside the domain of sport, in this instance from Herbert Freudenberger (1974) regarding volunteers in the healthcare service.

Most early discussions of burnout focus on healthcare services due to the expected selfless nature of those working within the sector, with Freudenberger (1974) wanting to discover the emotional and physical impact of working extra hours and going ‘above and beyond’ for patient care. Around the same time in the mid-1970’s Christina Maslach started investigating the phenomenon of a process of gradual exhaustion, leading to her publishing the Maslach Burnout Inventory in 1986. Overall Maslach set out to explain an apparent state of exhaustion coupled with mental and physical symptoms, including lack of motivation and passion (Maslach et al., 2001).

Research into burnout soon found its way into the sporting domain with the desire for coaches to achieve excellence with their athletes seen to be similar to that of the health services desire for excellent patient care (Raedeke and Kentta, 2013). Although burnout in coaches was prevalent in early research into the phenomenon in a sporting context (Caccese and Mayerberg, 1984; Capel et al., 1987; Dale and Weinberg, 1989) the emergence of a particular interest in athlete burnout in recent years has seen a reduction in the number of studies focused on coach burnout.

In 2007 there were 27 studies that examined athlete burnout and 23 studies examining the coaching counterpart (Goodger et al., 2007), since then there has been 30 athlete burnout related studies and only 7 studies examining coach burnout up to 2013 (Raedeke and Kentta, 2013). This is supported by Lundkvist et al., 2012 mentioning that there is a lack of research regarding burnout in sports coaches specifically.

More recently burnout in sport coaches has been discussed as a threat to an individual's professional life (Dovzhik et al., 2021) with Ackeret et al., (2021) discussing the need to consider symptoms of burnout and support coaches with a support network to help mitigate the negative impacts of burnout. Here social support was highlighted as a negative correlate to coach burnout showing its benefits on a coach's wellbeing.

A widely critiqued aspect of the field is the impact of this lack of specific research into coach burnout, with Goodger et al., (2007) discussing the focus being on an athlete's burnout to aid their performance with the coach often being overlooked, which ironically would lead to the coach being more likely to burn out through not focussing on their own wellbeing (Taku and Arai, 2020).

This study aims to explore the relationship between entrapment and the three dimensions of burnout within coaches. In order to contextualise this study this review will present literature related to four key issues in the following structure:

- Burnout and its three dimensions (emotional exhaustion, depersonalisation, and personal accomplishment).
- Entrapment.
- Other correlates to burnout to consider in the wider context.

- Social support.

This review will be used to outline the theory and research underpinning the study and will enable the results to be interpreted in a wider context, particularly in relation to the prediction of burnout in coaches across the three dimensions. It also allows the findings of the study to be fully explored in relation to previous knowledge.

Framework and Models

Early conceptual frameworks used to understand coach burnout focussed on demographic factors (age, gender, coaching experience, marital status) that may influence coach burnout, with a particular emphasis on gender in early studies. This early work found some significant differences amongst different demographic groups but despite this, the explained variance was small with inconsistent findings across studies (Caccese and Mayerberg, 1984). Maslach et al. (2001) found that demographic factors had a lack of predictive power within research into burnout outside of the sporting domain which supports the above.

Moving on from the early demographic focus researchers started to examine the relationship between stress-related factors and burnout in coaches such as leadership style (Kosa 1990), coping ability (Dale and Weinberg, 1989) and conflict or overload (Capel et al., 1987). When discussing a stress related perspective in relation to coach burnout Kelley introduced the association with perceived stress, support and hardiness (Kelley, 1994; Kelley et al., 1999) leading to burnout being widely recognised as being a stress-related strain, although it is worth considering that burnout is a multifaceted and complex phenomenon including a depletion of motivation (Raedek and Kentta, 2013).

Throughout the literature researchers have developed an understanding of the commitment perspective on burnout. Raedeke features regularly within the literature with articles focusing on commitments impact on athlete and coach burnout. From 1997 Raedeke and colleagues (Raedeke, 1997; Raedeke et al., 2002; Raedeke, 2004) discussed the commitment perspective of athlete burnout in an attempt to conceptualise a preliminary athlete burnout measure to provide an effective method for measuring burnout by separating the three dimensions of burnout and employing less ambiguous questions amongst the three dynamics (Lundkvist et al., 2014). This would later be adapted into the coach burnout questionnaire by Harris and Ostrow (2008).

Raedeke and colleagues (Raedeke, 1997; Raedeke et al., 2002; Raedeke, 2004) discussed the involvement of entrapment in coach burnout through their research into commitment perspective, with individuals who remain involved in their coaching role due to feeling they have to despite decreased attraction to coaching experiencing entrapment. Individuals may feel a need to stay in a role due to others' perceptions of them, a lack of alternative offers elsewhere or having too much invested to walk away. This has been shown to lead to burnout (Raedeke et al., 2002; Raedeke, 2004).

When looking at more contemporary literature Lundkvist has developed a range of studies within the field of coaching burnout since 2014, with an evaluation of burnout measures providing a comprehensive review of the measures and their intricacies available to researchers (Lundkvist et al., 2014) and through the discovery of literature gaps Lundkvist and colleagues have helped academics within the field to understand the limitations of the current literature (Lundkvist et al., 2016). Throughout Lundkvist and colleagues' research into burnout in sports coaches there has been no propositions of new theories, instead there has been a focus on

summarising and contextualising the field for researchers' interpretation. It is not necessarily a framework, but the structure and variety of his reviews will help guide this study.

Smith's Cognitive-Affective model of sport burnout (Smith, 1986) is a widely accepted framework for building research within the field. In previous studies the model has been used to "examine dispositional, cognitive, and situational predictors of coaching burnout" (Vealey et al., 1992). A key finding from this was that burnout may in fact be predicted by both personal cognitive factors and situational factors, something that needs further investigation to understand the various relationships fully (Woodruff, 2021).

Smith's Cognitive-Affective model appears to build on the Maslach Burnout inventory Maslach et al., (1986) but it is worth mentioning that it could now be considered outdated and obsolete in a modern context. This makes it potentially invalid for use in 2022 because it does not consider the evolving stressors that coaches in the modern game face, such as COVID-19 (Taku and Arai, 2020).

Throughout the COVID-19 pandemic coaches have been directly affected through a lack of time to support their athletes needs while also having to consider their own needs, and those of their family (Taku and Arai, 2020). Although many perceived the lockdowns of the COVID-19 pandemic to be a break for coaches, and for certain individuals they will have provided respite from a crowded schedule, many coaches also suffered by feeling they couldn't leave their role due to their athletes needing support at a crucial time in their sporting journeys (Glen et al., 2020).

A key area of consideration is the way in which different individuals may be impacted by burnout. One of the more influential frameworks within the literature, the Maslach Burnout Inventory (Maslach and Jackson, 1986), discusses burnout as being multi-faceted, which takes into consideration the ways in which individuals may be affected differently to one another.

To understand the multi-faceted nature of burnout Maslach and Jackson (1986) discuss three different dimensions of burnout (depersonalisation, emotional exhaustion and reduced personal accomplishment) each relating to various different symptoms and experiences with burnout (Raedeke and Kentta, 2013). Furthermore, it has been highlighted that there is a lack of breadth in theoretical framework and conceptualisations to explain how burnout is developed (Goodger et al., 2007), which explains why Maslach, and Jackson (1986) received consensual agreement of their framework.

There is a lack of opposition in terms of adequate conceptual models, making the Maslach Burnout Inventory (MBI) the most relevant in the field, even though it was developed 36 years ago. In view of the MBI's prominence within literature, and its consideration of the complexities of burnout, it will be used to guide this study and has been pertinent to the creation of this studies hypotheses.

There is potential to combine the theoretical framework and pertinence of the MBI while accounting for the impact modern factors and stressors on coaches, such as COVID-19 impacting on modern day coaching (Taku and Arai, 2020), to explore the implications of burnout within the modern coaching community.

Burnout

For a large period of time there was 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., (1996) 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”.

When comparing the two definitions Maslach et al (1996) indicates the physical aspect of burnout as well as the emotional one whereas Brill (1984) focusses solely on the psychological aspect, this being the main difference between the definitions. There is now a greater consensus within the literary field with most researchers adopting Maslach et al. (1996) as a more comprehensive and relevant definition.

One reason for the reduction in coach burnout studies in recent years could be attributed to the lack of one consensually universal definition leading to a reduction in its utility in various fields of research (Brill, 1984) and may have affected the number of studies being conducted. The unassured nature of the lack of one universal burnout definition could have led to research being considered inconsistent and therefore less sustainable and harder to replicate, leaving gaps to be explored now that there is consensus on the definition for burnout.

Throughout the literature Maslach and Jackson (1986) have been prevalent, with researchers choosing to adopt their concept of burnout. When exploring burnout in sports coaches’ studies

often consider the three dimensions of burnout explained by Maslach and Jackson (1986): emotional exhaustion, depersonalization, and reduced personal accomplishment. A level of consensual agreement on the multidimensional conceptualisations of burnout can be seen throughout the field with very little opposition (Goodger et al., 2007).

Due to Maslach and Jackson's prevalence in the sporting context of burnout with researchers choosing to adopt their definition, and the fact that the definition is more recent than that of Brill (1984), the Maslach definition will be used as the current working definition for the purpose of this study.

As previously mentioned, Maslach and Jackson (1986) discussed burnout comprising of three key dimensions, one example being depersonalisation. The depersonalisation dimension is seen to explain 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). It occurs when an individual experiences "an unfeeling and impersonal response toward recipients of one's service, care treatment, or instruction" (Maslach et al., 1986).

When experiencing depersonalisation individuals can feel overwhelmed if a student or athlete is unresponsive or doesn't respond in a way the coach had anticipated (Rumschlag, 2017). In support of this Ashforth and Lee (1990) argued that depersonalisation constitutes defensive behaviour as a method of coping with psychological strain. In lay terms, if an athlete isn't showing progress a coach may get defensive as a coping mechanism when experiencing depersonalisation. Despite this, it is worth considering that depersonalisations may not be applicable to all individuals due to its varying non-situational nature (Garden, 1987).

The second dimension to consider is emotional exhaustion. This is characterised as chronic fatigue, loss of energy and debilitation, and the feeling of being worn out (Pines and Aronson, 1988; Schwarzer, Schmitz and Tang, 2000). Maslach and Jackson (1981) deem emotional exhaustion to be a psychological strain through its ability to facilitate other psychological disorders, such as insomnia and anxiety, alongside physical fatigue.

Emotional Exhaustion is an important element of burnout to consider due to the physiological strain associated with it leading to a major lack of motivation, one of the key characteristics of burnout (Maslach and Jackson, 1986). When experiencing a lack of motivation and passion teachers and coaches often choose to leave their profession (Skaalvik and Skaalvik, 2017). Interestingly this contradicts the later examination of entrapment (not feeling able to leave a current situation) with lack of motivation being strongly correlated to coaches wanting to leave a position, but not feeling able to.

The third dimension of burnout, a sense of reduced personal accomplishment, is linked to the ability to adapt in demanding situations (Bandura, 1986). Individuals with a sense of reduced personal accomplishment have their want to be in control affected with their self-appraisal of performance-based outcomes also being impacted (Gecas, 1989) thus meaning coaches who are burnt out may feel a reduced sense of personal accomplishment.

In summary, reduced personal accomplishment is a feeling of lack of achievement that will differ depending on an individual's perceptions of the control they hold related to their motivation to perform a role (Lazarus and Folkman, 1984). Within the research field of teaching (holding similarities to that of coaching) reduced personal accomplishment is admissible (Corbin, et al, 2019) and links to the coaching community are apparent. Two

example overlaps within the coaching community are the reality of finishing a workday with outstanding tasks and the feeling of being overwhelmed due to the demands of a situation (Rumschlag, 2017) with both examples leading to coaches perceiving their personal accomplishments as reduced.

Burnout within sports coaches had been observed at all levels of various sports, from grassroots to paid professional coaches, but appears to effect professional coaches more due to the relentless and pressured nature of working with athletes all day, every day (Olusoga et al., 2019). The additional pressure of required high performance outputs from an athlete or team is seen as pertinent to keep a job within the sporting community leading to this being a big factor in this increase of burnout in professional coaches (Lundkvist et al., 2014).

Although demographic predictors have been seen to be unreliable predictors (Maslach et al., 2001), gender has been seen to impact upon coach burnout. Kelley (1994) found that female coaches experienced higher levels of burnout which could be explained by the intrinsic and extrinsic need to 'prove' themselves (Weiss and Stevens, 1993) or by their more nurturing coaching style creating more work and longer hours (Pastore and Judd, 1993).

In a sporting context, coaches experiencing burnout could encounter mental and physical exhaustion from the demands of their coaching, which could lead to them beginning to doubt their ability to succeed as a coach. The danger of this could lead to a change in attitude towards their athletes (Raedeke and Kentta, 2013). Additionally, once experienced, burnout is discussed to be a relatively permanent state meaning coaches could be affected by burnout over a long period of time, this is seen through an investigation into the stability of burnout scores over time (Maslach et al., 1996; McManus et al., 2002; Raedeke, 2004).

It is important to consider the gaps in the coach burnout literature. Overall research into burnout as a phenomenon is vast with over 6000 journal articles, books, chapters and dissertations published on the subject (Schaufeli et al., 2009) whereas coach burnout specifically has a minimal literary field in comparison with only 30 coach burnout related studies conducted up until 2013 (Raedeke and Kentta, 2013). This is supported by Lundkvist et al. (2012) mentioning that there is a lack of research regarding burnout in sports coaches specifically. Therefore, gaps in our understanding are large and frequent (Raedeke and Kentta, 2013).

Examples of gaps in the field include the lack of longitudinal study design (Drake and Hebert, 2002; Kelley, 1994; Raedeke, 2004, Woodruff, 2021), lack of focus on elite sport coaches (Raedeke and Kentta, 2013) and a lack of examination into testing and developing interventions to prevent burnout in coaches (Raedeke and Kentta, 2013). Additionally, further investigation into the moderating effect of social support when linked to stressors and burnout is required as well as an investigation into the ability to predict burnout within sports coaches post COVID-19 pandemic (Woodruff, 2021).

Entrapment

Entrapment is described as a phenomenon that occurs when an individual does not want to remain in a situation but feel they must maintain their involvement. In a sporting context they may feel they have to remain to support a team or athlete, because they are being paid, they feel responsible to deliver results or because they are too involved and feel they are integral to the team/individual's success (Raedeke, 1997).

Additionally, a coach may continue to deliver sessions as they feel they have too much invested to quit, they are worried about future career prospects, or they are worried about other

perceptions of them despite having a decreased attraction to coaching (Raedeke, 2004). Although contradicting this, Skaalvik and Skaalvik (2017) discuss decreased attraction as a reason for teachers leaving their profession, so it is worth considering that entrapment may affect burnout on an individual basis with coaches being impacted the effects of the relationship between burnout and entrapment differently to their colleagues.

When a coach feels increasing commitment there is a risk of entrapment. They have been found to feel trapped in a situation with a low likelihood of leaving due to feeling to committed to leave their position (Raedeke, 1997; Raedeke et al., 2002; Raedeke, 2004). Throughout his research Raedeke has discussed entrapment in the context of burnout in sport coaches across various studies focused on commitment perspective and burnout with an additional focus on the link to burnout if a coach remains entrapped in their situation.

When examined, entrapment within the context of coaches and athletes has been found to not only have an impact on a coach's performance (Collins, 2003) but also on the subsequent performance of athletes working with the said coach (Gustafsson et al., 2008; Gould et al., 2009) with subsequent repercussions as burnout may be experienced as a result.

Collins (2003) initially linked burnout to entrapment through the dimension of emotional exhaustion discovering that an increased entrapment profile in coaches correlated to an increase in emotional exhaustion. In subsequent research, Raedeke (2004) found that a key factor in entrapment, decreased attraction, was associated with the level of emotional exhaustion a coach experienced. This confirmed that entrapped individuals were more prone to burning out because of experiencing a greater degree of emotional exhaustion, which reinforced Collins (2003) aforementioned link between entrapment and burnout.

Raedeke (2004) also cited that experiencing reduced personal accomplishment and depersonalisation also played a role in entrapments link to burnout, with Woodruff (2021) also discovering that entrapment correlated to all three dimensions of burnout in a sample of 86 coaches. This study will be used to further examine the relationship between entrapment and the three burnout dimensions to build on the findings of Collins (2003) and Raedeke (2004).

When attempting to understand the link between entrapment and burnout it was found that the suggestion of alternate options available to coaches, including moving to another organisation or a complete career change, are not important when discussing entrapment as coaches didn't engage with the notion (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004). This could be explained by an entrapped individual's emphasis on the costs and negative aspects involved in their current situation leaving them blindsided to alternate opportunities (Rusbult, 1983).

It is worth noting that the concept of entrapment and its links to burnout could be considered unreliable (Raedeke, 2004) due to previous research showing unified support for the characteristics of entrapment, but not for the sources of entrapment. It could be argued that there is a blurred line between entrapment's characteristics and situations inducing entrapment (Raedeke 1997; Rusbult 1983). In lay terms, a coach could feel entrapped in a situation but be experiencing characteristics not previously considered within entrapment research meaning a link to burnout may not be discovered and examined leaving the potential for inconsistent results.

There is an importance to examine entrapment as a factor effecting burnout to allow the coaching community to explain why exhausted coaches continue to push on despite their levels of burnout suggesting they should make recovery their priority (Hassmén et al., 2019), with

this awareness allowing for coaches experiencing entrapment to be appropriately cared for to allow for potential recovery. By investigating the relationship between entrapment and burnout we can in turn investigate how to reduce the number of coaches burning out through feeling entrapped.

Other correlates to burnout to consider in the wider context

Although Entrapment is the focus correlate of this research it is important to consider other correlates mentioned in the literature to help place this study in the wider literary field. Throughout the literature there are studies relating to a variety of stressors with potential correlations to burnout, these are discussed as three groups: personal, situational and demographic (Goodger et al., 2007).

Demographic correlates are discussed in most early conceptual models, with key examples being age, gender, coaching experience and marital status (Caccese and Mayerberg, 1984), although there was a particular focus on the impact of gender on burnout. This early work found some significant differences amongst different demographic groups but despite this the explained variance was small with inconsistent findings across studies (Caccese and Mayerberg, 1984). In addition to this, Maslach et al. (2001) found that demographic factors had a lack of predictive power within research into burnout outside of the sporting domain making the investigation into demographic factors obsolete for this study.

Within the literature there is a strong focus on personal (otherwise known as psychological) correlates. There appears to be two stand out correlates effecting coach burnout: entrapment (Raedeke, 2000) and perceived stress (Kelley and Gill, 1993; Kelley, 1994; Malinauskas et al., 2010).

Amongst the two personal correlates, entrapment and perceived stress have received attention throughout literature (Kelley, 1994), although Raedeke (2000) argues that hardiness alongside entrapment is likely to be significant correlates to coach burnout. When considering situational stressors, the most prominent correlate within the literature is coaching stress, or coaching issues as it is commonly known (Hendrix et al., 2000; Kelley and Gill, 1993).

Cohen et al., (1983) describe perceived stress as:

“The degree to which one perceives an event or situation as threatening or demanding and beyond one's coping resources.”

Within a sporting context a coach may perceive stress from performance demands, conflicts between training and their personal life or from expectations and pressures from others (Chyi et al., 2018). Perceived stress is shown to correlate to burnout over time with Taylor et al., (1990) discussing the negative impact of a coach perceiving stress leading to burnout. This is consistent with Malinauskas et al. (2010) finding an evident correlation between burnout and perceived stress in Lithuanian university coaches.

The relationship between perceived stress and burnout in a sporting setting is not a straightforward one (Taylor et al., 1990) however, this is not to say that there is no correlation between the two as there is a wide consensual agreement that burnout is linked to personal stress (Malinauskas et al., 2010). Woodruff (2021) found perceived stress to be moderately linked to burnout, but only through the emotional exhaustion dimension. The correlation is explained through the emotional characteristics shared by both perceived stress and emotional exhaustion, with anxiety and insomnia featuring across both (Maslach and Jackson, 1981).

Unlike perceived stress, coaching issues is a situational stressor due to the scope of it being limited to specificities within coaching and it not accounting for an individual's life stresses like perceived stress does (Hendrix et al., 2000). Coaching issues are defined as an interactional phenomenon in which a coach interprets events within their environment, which determines whether their stress exists (Lazarus, 1990; Lazarus & Folkman, 1984). Essentially, an individual's interpretation of their environment can influence their stress appraisal which will affect the outcome of the coaching issues they experience. Coaching issues comprise of a variety of factors and can affect each individual differently, this is considered a critical issue for coaches (Kelley and Gill, 1993).

With coaching issues, when an individual finds themselves in a situation where the demands outweigh the effort one must output to overcome the situation then a negative stress response is provoked (Lazarus, 1990). As this imbalance increases, the negative effect on the individual's emotional response increases (Lazarus, 1990), with this imbalance potentially leading to the individual being burnt out as a response to the chronic emotional strain of dealing with the imbalance (Maslach, 1982).

Throughout the literature coaching issues are described as a key contributor to coach burnout with few challenges (Kelley et al., 1999; Martin et al., 1999). However, there is consideration due with coaching issues depending on a coach's individual stress appraisal meaning it may not directly affect burnout (Hendrix et al., 2000).

Social Support

Social support is an individual's perception of the level of regularly available help from family and close friends and the quality of said support from close individuals (Russell et al., 1987).

It is often examined in relation to burnout with Kelley (1994) using social support in a model to visualise the correlation between burnout and various common stressors.

When examining the stress appraisal and personal and situational stressors leading to burnout in collegiate teacher-coaches Kelley (1992) inferred that higher levels of social support led to coaches giving a lower stress appraisal, therefore the individual had less chance of burning out (Kelley, 1994). This relationship between higher levels of social support and burnout has positive implications for the coaching community with efficient support networks likely to reduce the chances of burnout, this is supported by DeFreese and Smith (2013) when looking at the relationship between athletes support networks and burnout.

The beneficial nature of this relationship juxtaposes the relationship between entrapment and burnout being investigated in the study, but consideration needs to go towards social support being a potential candidate as a moderator of the relationship between the negatively impactful variable (entrapment) and burnout. Due to the supportive nature of social support, one may consider it a proactive step or a 'treatment' to consider when dealing with a coach's burnout with many people in general considering the reception of help from a support network as valuable as beneficial for their well-being (Wood et al., 2010). This could mean that when a coach receives social support, they will see beneficial change to their well-being implying a reduction in burnout experienced, thus fitting a moderation role.

Social support has previously been used in a moderating capacity throughout sport burnout literature, with a particular focus on its effective moderating effects with athlete's burnout. Lu et al. (2016) found that social support provided by a coach was an effective moderator in the interaction between an athlete's resilience and their stress-burnout relationship. This could

transfer to be relevant in a coaching context, but consideration is needed as to the different stressors a coach faces compared to an athlete.

Although discussed in a context of coaches supporting athletes, social support had not been discussed as a moderator in a coaching setting until recently. Woodruff (2021) found social support to moderate the relationship between entrapment and two burnout dimensions: emotional exhaustion and depersonalisation. There was a substantial difference in emotional exhaustion levels between coaches with low social support from their network and those in receipt of higher levels of social support. This highlighted the beneficial nature of social support for coaches and reinforced the need to better support coaches throughout their coaching journey (Lundkvist et al., 2014). Additionally, a substantial difference was examined with coaches experiencing depersonalisation through entrapment dependant on the level of support they received from family, peers and friends (Russell et al., 1987).

Ackeret et al. (2021) discuss the need to highlight symptoms of burnout and support coaches with a network of individuals to help mitigate the negative impacts of burnout. The discussed social support is negatively correlated to coach burnout showing its benefits on a coach's wellbeing and the importance of having an appropriate support network in place for coaches within an organisation.

It is worth considering that social support has a lack of a unified academic definition throughout the literature, a critique of the field. Researchers only conducted discussions of what it may entail, leading to a lack of certainty regarding the constitution of social support (Tashman et al., 2010).

Conclusion

Raedeke and Kenttä (2013) suggest that there is currently little research linking a stressor (in this case entrapment) to coach burnout in practical terms, with the current majority of literature focussing on the conceptualisation of and theories surrounding coach burnout hosting the need for research that can be applied in a practical sense.

When examining how to evaluate coach burnout Loza et al. (2000) discussed the use of self-appraisal methods of testing due to them being directly 'in situ' however, Lundkvist et al. (2016) argue for the use of clinically validated methods which would allow for better understanding of the conceptualisation of burnout allowing for research into the practical implications to be conducted more accurately.

Entrapment will be the focus correlate to burnout in the context of this study due to it being found to correlate to all three dimensions of burnout (Woodruff, 2021). Due consideration will go to a coach feeling trapped in a situation with a low likelihood of leaving due to feeling too committed to leave their position (Raedeke, 1997; Raedeke et al., 2002; Raedeke, 2004) with the consequential impact on a coach's burnout levels being examined. Raedeke and colleagues (Raedeke, 1997; Raedeke et al., 2002; Raedeke, 2004) discussed entrapment in the context of burnout in sport coaches across various studies focused on commitment perspective and burnout with an additional focus on the link to burnout if a coach remains entrapped in their situation, this study will look to build upon this and better understand the relationship between entrapment and burnout for practical application.

This study aims to explore the relationship between entrapment and burnout, with consideration going towards the potential of a model to be used to help predict the likelihood of burnout in a

coach based on the level of entrapment they are experiencing. Previously Kelley (1984) has produced a model to depict the correlation of burnout and stress based on various stressors (gender, time of season, social support). However, Kelley (1984) did not exclusively theorise a method to predict burnout through the three dimensions of burnout and the stressors causing it while using social support as a moderator due to its positive nature leaving a gap for practical research.

Occasionally burnout is looked at in a practical context with Altfeld et al. (2018) focusing on looking at coach burnout in a practical setting using personal and situational stressors but the impact of social support is often forgotten or overlooked. In addition to this the current practical focus on burnout within sports coaches is often restricted to one demographic, for example only looking at high school sports coaches (Lee and Chelladurai, 2018) with less holistic research available.

Therefore, this study will focus on understanding the relationship between entrapment and the three dimensions of burnout within coaches as well as examining the often-under-represented moderation effect of social support, to understand and potentially predict the interaction between entrapment and coach burnout. In order to understand a holistic coaching demographic, there will be no gender, experience or role related constraints to participation. This coupled with the focus on examining theory in practice helps contribute towards the current gaps within sports coach burnout literature. The guiding hypothesis will be as follows:

Research Hypothesis (Alternate)

Research Hypothesis (H₁): Entrapment will positively correlate to a coach's general burnout levels.

Research Hypothesis (H2₁): Entrapment will positively correlate to a coach's burnout levels through one or more of the three dimensions (emotional exhaustion, depersonalisation and reduced personal accomplishment).

Research Hypothesis (H3₁): Social support will act as a moderator between entrapment and a coaches burnout levels through one or more of the three dimensions (emotional exhaustion, depersonalisation and reduced personal accomplishment).

Research Hypothesis (H4₁): Social support will negatively correlate to a coach's burnout levels through the three dimensions of burnout (emotional exhaustion, depersonalisation and reduced personal accomplishment).

Research Hypothesis (Null)

Research Hypothesis (H1₀): Entrapment will not correlate or will negatively correlate to a coach's general burnout levels.

Research Hypothesis (H2₀): Entrapment will not correlate or will negatively correlate to a coach's burnout levels.

Research Hypothesis (H3₀): Social support will show no moderation interaction between entrapment and a coaches burnout level.

Research Hypothesis (H4₀): Social support will not correlate or will positively correlate to a coach's burnout level.

Methodology

Research Design

In this study, quantitative methods will be used in conjunction with a realistic ontological framework. The potential correlations between entrapment, social support (moderator) and the three dimensions of burnout can be clearly determined and compared to previous understandings of the subject, resulting in a more comprehensive understanding of relationships (Cresswell, 2009). Additionally, an objectivist epistemology will be applied, which, despite its limitations in explaining behaviour, provides the best method for generalising a population (Scriven, 1970), allowing the issue to be understood better as a whole, which is necessary when developing a model for understanding burnout in relation to entrapment among sport coaches.

Sukamolson (2007) suggests that inferential statistics would be the most suitable for this study because they allow for large scale generalisations and provides statistics through comparisons of variables. Thus, for the creation of a model designed to explain burnout and entrapment in sport coaches, the positivist paradigm is the best paradigmatic position.

Due to the time constraints associated with a Masters dissertation, this research will be conducted cross-sectionally (Leiner, 2014). Regarding positionality within research, coach burnout is of particular interest to me as I experienced burnout as a sport coach when I was 18 years old, so I feel that I have an identity within the field of research. It is worth noting the potential impact of unconscious bias on my interpretation of the results as a consequence of experiencing the phenomenon personally in the past. Due consideration must also go to that fact that I am a middle-class university student, meaning my experiences may be different from those of my participants thus meaning my interpretation of results may differ.

This quantitative research will be conducted using a non-experimental, correlational, approach. In order to collect survey data, a quantitative questionnaire will be distributed to coaches to gauge their burnout levels across all three dimensions, as well as their social support and entrapment. The use of survey data enables the collection of data systematically from a wide range of individuals, allowing a broad-based generalisation of the population (Sapsford, 2006). The survey will be administered and distributed online through the Microsoft Forms platform.

In order to maintain the anonymity of the participants, a self-administered questionnaire taking approximately 10 minutes to complete has been developed (Sukamolson, 2007). The self-administered survey will be tested in order to address potential issues with wording and to reduce the risk of bias. Due to the time constraints associated with a Masters dissertation (Leiner, 2014), a survey is the most appropriate method.

Despite the fact that this design is the most appropriate method given the studies time limitations and sensitive nature, it is important to note that if respondents' characteristics and missing data are not properly handled in the data analysis stage, the results could be adversely affected (Sukamolson, 2007).

Sampling

In this study, probability sampling as well as non-probability sampling were considered as general sampling methods. A probability-based sample approach involves choosing samples from a population to represent the wider population more accurately, while a non-probability-based sample is a judgement-based approach involves choosing samples from the population based on the researcher's judgement.

The recruitment of participants for this study will be accomplished through convenience/snowball sampling, a non-probability sampling method. Although not the 'gold standard' method of probability sampling, non-probability sampling, more specifically snowball/convenience sampling, will be ideal for this study due the associated time and budget constraints of a Masters dissertation (Leiner, 2014). Research on coaching burnout has recently been conducted by Woodruff (2021) using this method, showing its relevance.

Participants will be recruited from the United Kingdom through a variety of channels. Surveys will be emailed to members of the coaching community where emails are in the public domain on sporting league and club websites. Additionally, two social media platforms will be used to recruit participants, Twitter and LinkedIn. Due to the anonymous nature of the questionnaire, there will be no revealing characteristics collected if an individual decides to participate through either social media or email. It is important to establish that there is no expectation to complete a survey and that not completing a survey will not affect an individual's relationship with the researcher.

The participants of this study will be actively coaching in sports (examples may include football, futsal, cricket, netball, tennis, athletics and other recognised sports with National Governing Bodies) and will be over 18 years of age. Their coaching experience and qualification levels will vary from total beginner to professional in an attempt to provide a holistic view of coaches as a general population. Participants may be practicing across a variety of age categories (from Under 8's to open age adult coaching, both male and female) and the male/female split across participants will not be controlled and will depend on the number of respondents from each gender.

The size of a sample is an important consideration. A calculation was completed to determine a valid sample size based on 500 coaches with a margin of error of 5 per cent and a 95 per cent confidence level. As a result, a target sample size of 218 was determined. Due consideration was given to a lower margin of error and a higher confidence rate, but due to time and budget constraints this wouldn't be possible.

Instrumentation and Justification for use

The quantitative questionnaire will include three instrumentations:

1. Coach Burnout

For measuring the level of burnout in coaches, Harris and Ostrow (2008) developed the Coach Burnout Questionnaire (CBQ). The CBQ is a Likert scale adapted from Raedeke and Smith's (2001) Athlete Burnout Questionnaire (ABQ) by Harris and Ostrow (2008) for research surrounding coaches and will be adopted in this research.

Within the CBQ, burnout levels are determined by the mean score of 15 items on a 5-point Likert scale. The questionnaire consists of three subscales, one for each dimension of burnout, each with five items. Emotional exhaustion is represented by questions 2, 4, 8, 10 and 12. Reduced personal accomplishment is represented by questions 1, 5, 7, 13 and 14. Depersonalisation is represented by questions 3, 6, 9, 11 and 15.

The ability to define between the three dimensions of burnout makes the CBQ an ideal tool to utilise when looking to interpret results between the three dimensions. This will help pinpoint interactions between entrapment and the multifaceted nature of burnout, which in turn should aid in the prediction of coach burnout based on a coach's entrapment levels (Malinauskas et al., 2010; Woodruff, 2021).

Since being adapted from the ABQ in 2008 by Harris and Ostrow, the CBQ has been used in multiple different studies of coach burnout, including an examination into perceived stress and coach burnout in Lithuanian University coaches (Malinauskas et al., 2010). Here Malinauskas et al., (2010) found the CBQ to have a Cronbach's alpha of 0.79 showing it to be a reliable scale used in previous coach burnout related research.

Malinauskas et al. (2010) also deemed the CBQ 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) with Lundkvist et al. (2014) explaining that it allows us to see which dimension a specific variable has impacted, thus making it ideal for this study.

2. Entrapment

Coach entrapment levels will be assessed using the Short Defeat and Entrapment Scale (SDES) (Griffiths et al., 2015). This scale uses a 5-point Likert scale consisting of 8 items that range from 0 (not at all) to 4 (extremely like me). Through the SDES, participants will be required to reflect on their thoughts and feelings over the seven-day period prior to completing the questionnaire, and mark accordingly.

To make the scale useable in data analysis a mean score will be calculated and be used to represent entrapment. Griffiths et al. (2015) investigated the validity and reliability of the SDES for measuring entrapment within community samples with good results (Cronbach's alpha: 0.91).

Previous research into entrapment in athletics coaches (Gustafsson et al., 2017) has shown that the short form of the scale allows for easier administration and less time and effort on the participants part since they do not have to spend as much time and effort completing it as other lengthier scales. As a result of not taking too long to complete, it was the ideal choice for this study with participants engaging with the entire questionnaire giving a more accurate reflection of their entrapment levels.

3. Social Support

Participants' levels of social support will be assessed using a 6-item short form of the Social Support Questionnaire (SSQ6) (Sarason et al., 1987). The short form version of the questionnaire is an efficient instrument for assessing two distinct facets of perceived social support; satisfaction (how satisfied a participant is with their current level of support) and availability (the availability of their current support network) (Sarason et al., 1987).

When completing the questionnaire participants will rate how satisfied they are with their support network on a 6-point Likert scale for each item. To make the scale useable in data analysis a mean score for the six items will be calculated and be used to represent social support, this value will be between one and six.

In order to measure social support appraisal as a correlate in this study only satisfaction will be taken as a measurement from the SSQ6. For the purpose of this study 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.

When considering the reliability of the SSQ6 Rasclé et al. (2005) discovered that validity (Cronbach's alpha: 0.81) and reliability were satisfactory when adapting the scale into the French language, which reinforces the scale's use in research into dimensions of coach welfare (Reinboth et al., 2004).

Selection and justification of appropriate analysis

IBM SPSS statistics (SPSS, 2009) will be used for data analysis in this quantitative study. It is important to ensure reliable outputs from the analysis therefore data will be entered in the correct format by reversing negatively worded questions (questions 1 and 14 in the CBQ will be reversed). Once all relevant data points have been correctly reversed, mean scores for each variable unique to each participant will be calculated before the dataset is checked for errors and outliers before analysis.

Once the data is prepared and correctly formatted inside SPSS, H1₁ will be investigated using two forms of analysis. Firstly, a Pearson correlation coefficient with the data in its original continuous format will be conducted to determine whether a correlation between entrapment and burnout as a whole exists amongst the participants. Secondly, an independent t-test will be conducted after a coach's burnout score is categorised into one of two groups: burnout or non-burnout. Dichotomisation at the mean score will be performed to place participants into these two groups giving two distinct categories to analyse the impact of entrapment in a generalised sense.

In addition to the testing of H1₁, once burnout has been dichotomised a basic preliminary investigation into the potential for generating a predictive model to be used to predict coach burnout based on a coach's entrapment levels will be conducted using SPSS Modeler 18.0. The Entrap and BurnoutDicho variables will be inserted into SPSS Modeler 18.0 where the

participants will be split into a training group and a testing group automatically before 15 potential models will be automatically tested against to find the most effective iteration. No validation will take place as this is a preliminary measure to determine whether a predictive model may or may not be possible.

In the next stage of data analysis three standard linear regressions will be conducted to determine the relationship between entrapment and the three dimensions of burnout. A standard linear regression will be used as it incorporates all independent variables into the equation simultaneously in order to explain variability in a dependent variable (Pallant, 2013), in this case coach burnout.

The independent variable (entrapment) will remain consistent throughout the three different simple linear regressions, with the dependant variables (depersonalisation, reduced personal accomplishment and emotional exhaustion) changing for each separate regression. As a result of this each regression will generate data to determine the relationship between entrapment and each dimension of burnout. By using this method, the research will be able to investigate how entrapment (Independent Variables) affects coaches' levels of burnout (Dependant Variables) in relation to each burnout dynamic (Kania et al., 2009) thus testing against H2₁. For each linear regression a predictive equation will be constructed to be considered for use in practical application.

In order to test H3₁ a further stage of data analysis will be conducted to examine any moderating effect of social support over entrapment and a coach's burnout levels across one or more of the three dimensions. Here a hierarchical multiple regression analysis will be conducted in SPSS using the PROCESS function (Hayes, 2013). During the analysis the independent variable

(entrapment) and dependant variable (each dimension of burnout) will be entered into the regression alongside the potential moderator (social support) to determine whether there is an interaction effect or not. This allows the potential moderating effects (whether enhancing, buffering or antagonistic) of social support to be investigated thus showing us the potential mitigating effect that social support may have on burnout in coaches experiencing entrapment. This will help explore the multifaceted nature of burnout in sports coaches in greater detail.

H4₁ looks to explore the relationship between social support and the three dimensions of burnout in an attempt to give organisations a greater understanding of where support will be more efficient for coach burnout. In order to investigate this a further three simple linear equations will be conducted to determine the correlation between social support and each dimension of burnout, with social support remaining a constant independent variable across the regressions and the three different dimensions of burnout being inputted as the dependant variable in the three separate regressions. By using this method, this research will be able to investigate how social support affects the coaches' levels of burnout in relation to each burnout dynamic (Kania et al., 2009).

Variables used in analysis

Below is a table of all variables to be used in data analysis.

Question	Variable name
Coach Burnout	
1. I'm accomplishing many worthwhile things in coaching.	RA.1
2. I feel so tired from my coaching that I have trouble finding energy to do other things.	EM.1
3. The effort I spend coaching would be better spent doing other things.	DP.1
4. I feel overly tired from coaching.	EM.2
5. I am not achieving much in coaching.	RA.2

6. I don't care as much about my coaching performance as much as I used to.	DP.2
7. I am not performing up to my ability in coaching.	RA.3
8. I feel "wiped out" from coaching.	EM.3
9. I'm not into coaching like I used to be.	DP.3
10. I feel physically worn out from coaching.	EM.4
11. I feel less concerned about being successful in coaching than I used to.	DP.4
12. I am exhausted by the mental and physical demands of coaching.	EM.5
13. It seems that no matter what I do, I don't coach as well as I should.	RA.4
14. I feel successful at coaching.	DP.5
15. I have negative feelings towards coaching.	RA.5
Social Support	
1. Those you can really count on to be dependable when you need help.	SO.1
2. Those you can really count on to help you feel more relaxed when you are under pressure or tense.	SO.2
3. Those who accepts you totally, including both your worst and your best points.	SO.3
4. Those you really count on to care about you, regardless of what is happening to you.	SO.4
5. Those you can really count on to help you feel better when you are feeling down-in-the- dumps.	SO.5
6. Those you count on to console you when you are very upset.	SO.6
Entrapment	
1. I can see no way out of my current situation.	ET.1
2. I feel defeated by life.	ET.2
3. I would like to get away from other more powerful people in my life.	ET.3
4. I feel powerless.	ET.4
5. I would like to escape from my thoughts and feelings.	ET.5
6. I feel that there is no fight left in me.	ET.6
7. I would like to get away from who I am and start again.	ET.7
8. I feel that I am one of life's losers.	ET.8
Overall	
Total Burnout Score (Mean)	BurnoutTot
Total Emotional Exhaustion Score (Mean)	BurnEM

Total Reduced Personal Accomplishment Score (Mean)	BurnRA
Total Depersonalisation Score (Mean)	BurnDP
Total Entrapment Score (Mean)	Entrap
Total Social Support Score (Mean)	SocSup
Burnout Dichotomisation (0, 1)	BurnoutDicho
Entrapment and Social Support Interaction Term (Entrap x SocSup)	EntxSoc

Ethical Considerations

Coach burnout is a sensitive topic by nature, so many ethical considerations will have to be addressed during the planning and implementation process of this project.

Firstly, due to the study examining a psychological syndrome developed after experience to interpersonal and role related stressors (Rossi et al., 2006) a participant information sheet will be produced with links to mental wellbeing support organisations for the participant's reference. Asking a participant to reflect on potentially distressing elements of their life is an important consideration for individuals to decide upon when opting into this research, hence the requirement to make this reflection obvious in the participant information sheet.

The participant information sheet will be used to outline all relevant details of the study including, but not limited to, the procedure, the background and purpose, the procedure used when a participant exercises their right to withdraw, how the data collected will be used and stored, information regarding how confidentiality will be ensured and information regarding contacting the researcher, supervisor and head of school (School of Education and Lifelong Learning) at the University of East Anglia. Moreover, as previously mentioned, contact information for relevant organisations supporting individuals with mental health concerns will be included for those participants effected by reflecting upon burnout and entrapment to be used if desired.

Every participant will receive the participant information sheet electronically allowing them to make an informed decision about participating in a voluntary capacity. In order to ensure that participants provide fully informed consent, they will have the option of “opting in”, rather than “opting out”. Additionally, all participants will be informed before participating that they have the right to withdraw if they feel negatively impacted by their participation. They will also be informed that, due to the anonymity of the questionnaire, once a response to the online survey has been submitted, they will no longer be able to withdraw from the study.

Results

The results section will be structured as follows: descriptive statistics, scale reliability, testing against research hypothesis 1 (H1₁), testing against research hypothesis 2 (H2₁), testing against research hypothesis 3 (H3₁), testing against research hypothesis 4 (H4₁).

Before data analysis was conducted, four outliers were removed to reduce the chance of including data produced through participant error or difficulties (Comrey, 2010) thus skewing the analysis. The outliers removed had the ID numbers 12, 70, 187 and 225.

Descriptive Statistics

Table 1
Descriptive Statistics

	Mean	Std. Deviation	Cronbach's Alpha
Reduced Personal Accomplishment	2.16	.61	.77
Emotional Exhaustion	2.23	.95	.93
Depersonalization	1.96	.77	.84
Entrapment	.62	.75	.90
Social Support	2.13	.96	.94

The Cronbach's Alpha for all five measures were over the 0.7 threshold set out by Nunnally (1978) meaning that every scale used to measure participant responses were reliable.

When looking at the descriptive statistics one would infer that, on average coaches are relatively happy in their positions with lower levels of burnout across the three dimensions, with the lowest mean being depersonalisation (1.96) and the highest being emotional exhaustion (2.23). In addition, coaches are shown to be content with the levels of support they receive from their network of significant individuals. When considering standard deviation, every measurement was $\pm < 1$ showing a relative consistency among how coaches are feeling.

Table 2
Correlation Matrix

	Reduced Accomplishme nt	Emotiona l Exhaustio n	Depersonalizati on	Social Suppo rt	Entrapme nt
Reduced Accomplishmen t	1				
Emotional Exhaustion	.46	1			
Depersonalizati on	.71	.58	1		
Social Support	-.48	-.44	-.55	1	
Entrapment	.44	.6	.51	.53	1

Correlation is significant at the 0.01 level (2-tailed).

Upon examination of the correlations between entrapment and the three dimensions of burnout it is apparent that all of the relationships are between .44 and .60 showing a medium correlation having a positive effect across the three dimensions. The weakest correlation is between entrapment and reduced personal accomplishment (.44) showing that a relationship exists but is not as strong as the relationship between entrapment and emotional exhaustion (.60) and therefore is considered less prevalent. Unsurprisingly there are three moderate negative correlations found between social support and the three dimensions of burnout (reduced personal accomplishment -.48, emotional exhaustion -.44 and depersonalisation -.55) showing that social support is a beneficial factor to coaches. The weakest correlation was found between entrapment and emotional exhaustion (.44) with the highest correlation coming between two of the dimensions of burnout: reduced personal accomplishment and depersonalisation (.71).

Individual scale reliability

It is important to consider the relevance and reliability of the individual questions used in each scale to allow for a more reliable total output.

Table 3***Reduced Personal Accomplishment descriptive statistics***

Variable name	Mean	Standard deviation	Cronbach's Alpha if item deleted
RA.1	2.09	.76	.74
RA.2	1.93	.89	.74
RA.3	2.44	.90	.73
RA.4	2.07	.95	.71
RA.5	2.26	.70	.72

The five items used to measure levels of reduced personal accomplishment in coaches all have similar Cronbach's Alpha's if the item was to be removed from the scale (.03 variance) meaning the five questions are all reliable and relevant.

Within the dimension of reduced personal accomplishment, it appears that coaches have stronger feelings that they are not performing up to their ability (RA.3 = 2.44) compared to other elements of the dimension, such as not achieving much in coaching (RA.2 = 1.93).

Table 4***Emotional Exhaustion descriptive statistics***

Variable name	Mean	Standard deviation	Cronbach's Alpha if item deleted
EM.1	2.32	.93	.92
EM.2	2.25	1.07	.92
EM.3	2.17	1.11	.91
EM.4	2.15	1.17	.90
EM.5	2.27	1.05	.92

The variance between the Cronbach's Alpha's if the item was to be removed from the scale is minimal (.02 variance) between emotional exhaustion variables meaning the five questions are all reliable and relevant.

When looking at the dimension of emotional exhaustion, there is a suggestion that the biggest impact on the dimension is when a coach feels they are too tired from coaching leaving them with no energy to do anything else (EM.1 = 2.32) compared to impact of other elements of the dimension, such as feeling physically worn out in general (EM.4 = 2.15).

Table 5*Depersonalisation descriptive statistics*

Variable name	Mean	Standard deviation	Cronbach's Alpha if item deleted
DP.1	2.06	.89	.84
DP.2	1.89	1.01	.79
DP.3	1.99	1.05	.77
DP.4	1.92	1.01	.82
DP.5	1.96	.96	.79

The five items used to measure levels of depersonalisation in coaches all have similar Cronbach's Alpha's if the item was to be removed from the scale (.05 variance) meaning the five questions are all reliable and relevant.

Within the dimension of depersonalisation, there is an indication that a coach is more likely to feel that their effort spent coaching would be better used elsewhere (DP.1 = 2.06) than other elements of depersonalisation. An example of an element of depersonalisation having less impact on coaches generally is not caring as much about their coaching anymore (DP.2 = 1.89).

Table 6*Entrapment descriptive statistics*

Variable name	Mean	Standard deviation	Cronbach's Alpha if item deleted
ET.1	.85	1.10	.90
ET.2	.64	.94	.88
ET.3	.60	.94	.91
ET.4	.66	.86	.89
ET.5	.93	1.20	.89
ET.6	.42	.82	.89
ET.7	.49	.99	.89
ET.8	.41	.83	.89

The variance between the Cronbach's Alpha's if the item was to be removed from the scale is minimal (.03 variance) between entrapment variables meaning the five questions are all reliable and relevant.

When considering the elements that make up entrapment, it appears that wanting to escape from their thoughts and feelings (ET.5 = .93) has the most impact on coaches in general. Whereas feeling like one of life's losers has less impact on coaches generally (ET.8 = .41) when considering entrapment.

Table 7
Social Support descriptive statistics

Variable name	Mean	Standard deviation	Cronbach's Alpha if item deleted
SO.1	2.11	1.09	.92
SO.2	2.30	1.10	.93
SO.3	2.03	1.01	.93
SO.4	1.97	1.02	.92
SO.5	2.22	1.20	.92
SO.6	2.17	1.21	.92

The five items used to measure levels of social support amongst coaches all have very similar Cronbach's Alpha's if the item was to be removed from the scale (.01 variance) meaning the five questions are all reliable and relevant.

When considering the elements that make up social support, it appears that having a network who relax them when they feel under pressure (SO.2 = 2.30) has the most impact on coaches in general. Whereas having their network care about them no matter what has less impact on coaches generally (SO.4 = 1.97) when considering social support.

Testing Research Hypothesis 1 (H1₁)

Pearson Correlation Coefficient

A Pearson correlation coefficient was computed to determine the relationship between a coach's perceived entrapment and level of burnout they are experiencing, this was conducted using the Entrap and BurnoutTot variables.

The results indicate a significant positive relationship between Entrap and BurnoutTot, $r(234) = .624$, $p < .001$ thus giving cause to reject H_{10} .

Independent Samples t-test

To further investigate the hypothesis that entrapment will correlate to burnout as a general phenomenon an independent sample t-test was conducted using the BurnoutDicho variable and the Entrap variable. In order to compute the BurnoutDicho variable a total average score to represent burnout was calculated for each participant. The distribution of the values of this burnout indicator conformed to the normal distribution (mean 2.12 ± 0.66). Dichotomisation at the mean score was performed (Malinauskas et al., 2010) and the participants were categorised into two groups: burnt out (> 2.12) and not burnt out (< 2.12) to be analysed. From the results of the analysis, we see that:

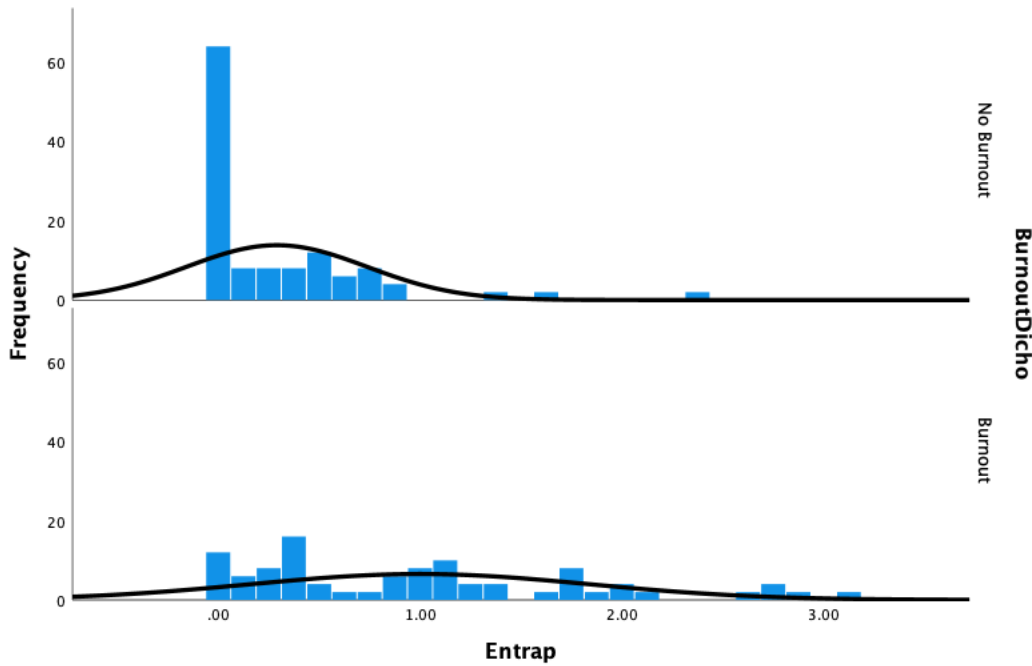
There was a significant difference in the level of entrapment felt by a coach between being burnt out and not burnt out ($t(161.65) = -7.93$, $p < .001$). In addition to this, the average entrapment score on the Short Defeat and Entrapment Scale (SDES) for burnt out coaches ($n=110$) was .71 higher than the average entrapment score on the Short Defeat and Entrapment Scale (SDES) for non-burnt-out coaches ($n=124$).

To sum up, as a coach feels entrapment in relation to their coaching situation, the level of burnout they experience increases. Therefore, the null hypothesis (H_{10}) that entrapment has no correlation with a coach's burnout levels, is rejected.

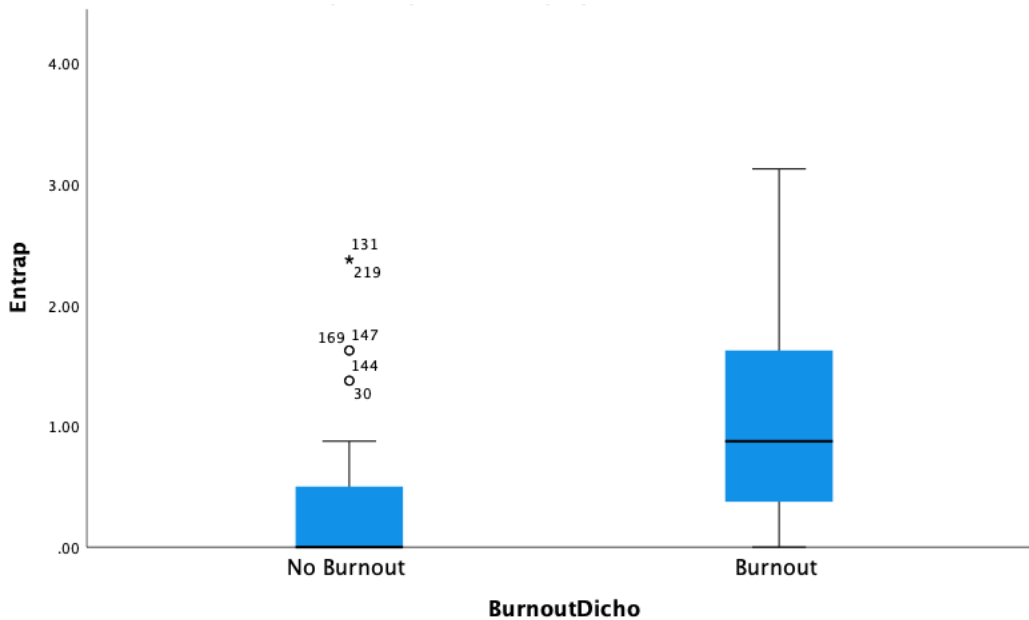
When considering the skewness and kurtosis of entrapment by burnout graph 1 shows platykurtic kurtosis and positive skewness. Further consideration to the distribution of data

points is seen in graph 2 depicting six potential outliers for consideration as a result of the independent samples t-test.

Graph 1: Histogram of entrapment by burnout (dichotomisation)



Graph 2: Simple boxplot of entrapment by burnout (dichotomisation)



Predictive Modelling (Entrapment and Burnout)

When considering the practical application of the evident correlation between entrapment and burnout, a preliminary test to examine the feasibility of a predictive model used to predict a coach’s likelihood of being burnt out based on their level of entrapment was conducted.

All participants were split randomly into a training cohort (n=110) and a testing cohort (n=110) in SPSS Modeler 18.0. At this stage, using the Entrap variable and the BurnoutDicho variable (in order to categorise groups) 15 models were generated by SPSS Modeler 18.0, with the most effective model returning as Neural Net 1 (NN1), an artificial neural network (ANN) with an accuracy rate of 79.1 per cent (figure 1.1). The potential for error is seen in figure 1.2.

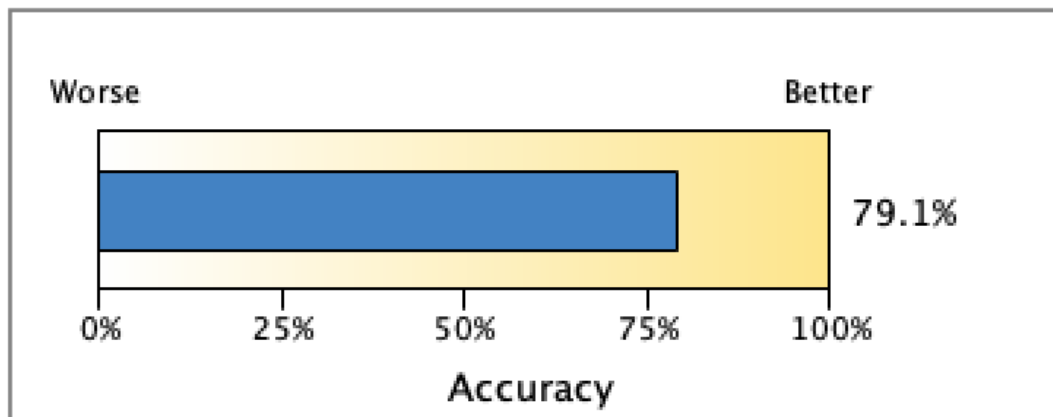


Figure 1.1: The accuracy of NN1 when predicting coach burnout from entrapment.

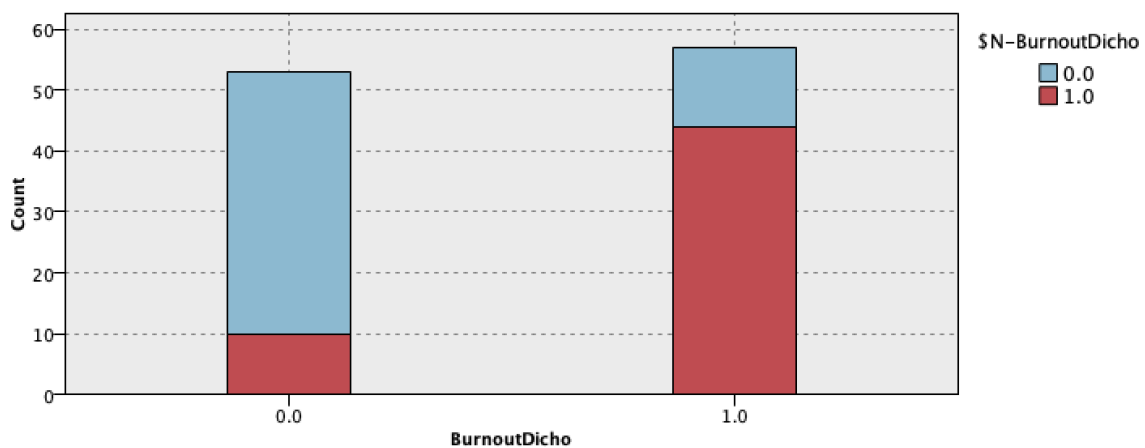


Figure 1.2: A graph depicting the margin of error in NN1.

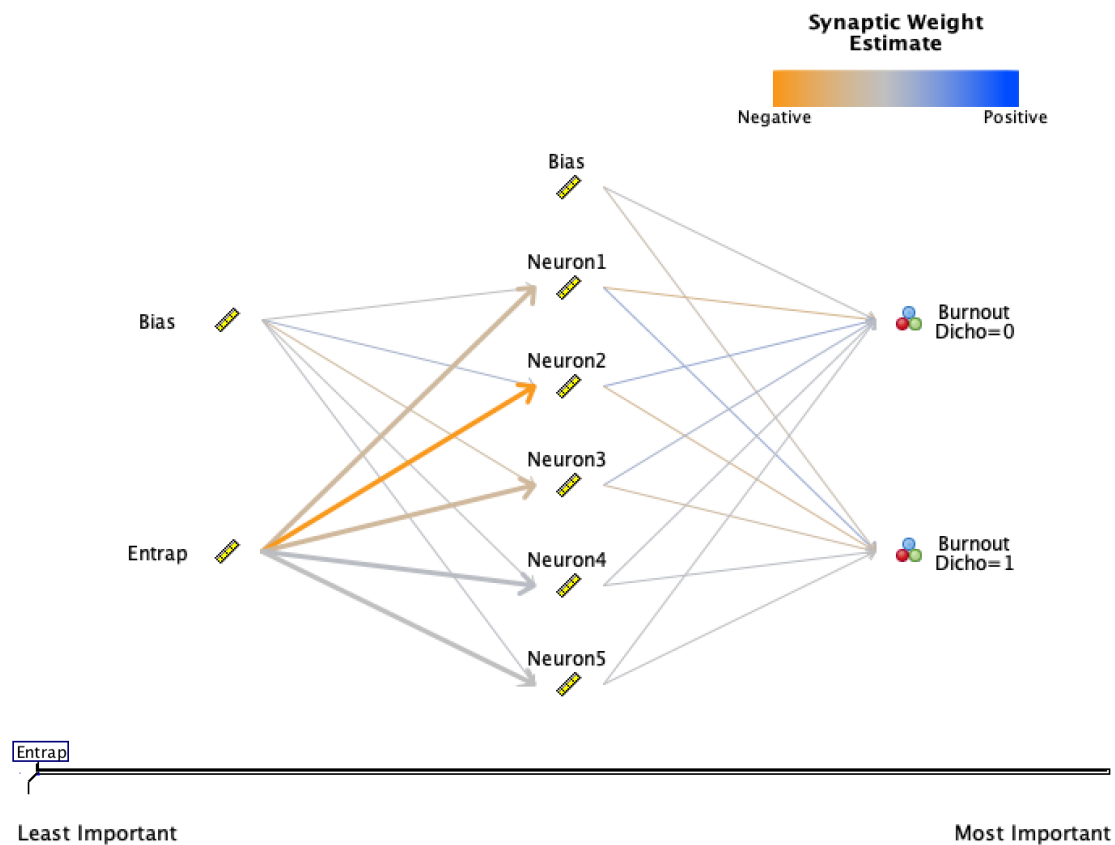


Figure 1.3: 'Neural Net 1' ANN depicting the predictive model between entrapment and burnout.

A depiction of the predictive model can be found in figure 1.3. This preliminary investigation having 79.1 per cent accuracy of prediction shows potential for further research into generating and validating a predictive model to have practical application in safeguarding coaches from burnout.

Testing Research Hypothesis 2 (H2₁)

Linear Regression Examining the relationship between Emotional Exhaustion and Entrapment

A simple linear regression was conducted to test the relationship between emotional exhaustion and entrapment. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .362 showing that entrapment (predictor variable) is responsible for 36.2 per cent of variance in emotional exhaustion experienced by a coach.

The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 131.63, p < .001$) indicating that the model was meaningful. Entrapment was significantly related to emotional exhaustion ($\beta=.76, p < .001$). Significant path coefficients are indicated in figure 2. The final predictive equation was:

Level of burnout (emotional exhaustion) = $1.76 + (0.76 * \text{entrapment})$.

Linear Regression Examining the relationship between Reduced Personal Accomplishment and Entrapment

A simple linear regression was conducted to test the relationship between reduced personal accomplishment and the predictor variable (entrapment). Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .194 showing that entrapment (predictor variable) is responsible for 19.4 per cent of variance in reduced personal accomplishment experienced by a coach. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 55.77, p < .001$) indicating that the model was meaningful. Entrapment was significantly related to emotional exhaustion ($\beta=.36, p < .001$). Significant path coefficients are indicated in figure 2. The final predictive equation was:

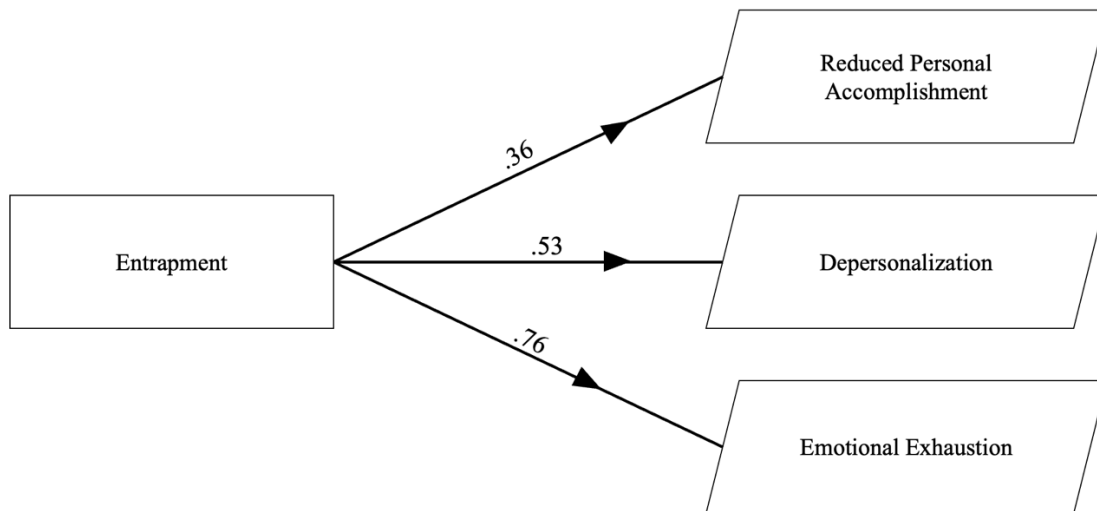
Level of burnout (reduced personal accomplishment) = $1.94 + (0.36 * \text{entrapment})$.

Linear Regression Examining the relationship between Depersonalisation and Entrapment

A simple linear regression was conducted to test the relationship between depersonalisation and the predictor variable (entrapment). Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .264 showing that

entrapment (predictor variable) is responsible for 26.4 per cent of variance in depersonalisation experienced by a coach. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 83.26, p < .001$) indicating that the model was meaningful. Entrapment was significantly related to depersonalisation ($\beta=.53, p < .001$). Significant path coefficients are indicated in figure 2. The final predictive equation was:

$$\text{Level of burnout (depersonalisation)} = 1.64 + (0.53 * \text{entrapment}).$$



Only significant path coefficients are included.

Figure 2: significant pathways between the three dependant variables (reduced personal accomplishment, emotional exhaustion, and depersonalization) and the independent variable (entrapment).

The three linear regressions examining the relationship between entrapment and the three dimensions of coach burnout have all shown significant relationships thus meaning H_{20} is rejected.

Testing Research Hypothesis 3 (H3₁)

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: $R^2=.38$, $F(2, 231) = 72.06$, $p < .001$ (3.1). 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 didn't account for significant proportion of the variance in emotional exhaustion: $\Delta R^2=.004$, $\Delta F(1, 230) = 1.48$, $p = .23$, $b = -.066$, $t(230) = -1.22$, $p = .23$ (3.2). The interaction can be seen in figure 3.1. This analysis shows no moderation effect of social support in the relationship between entrapment and emotional exhaustion, thus meaning H3₀ is rejected.

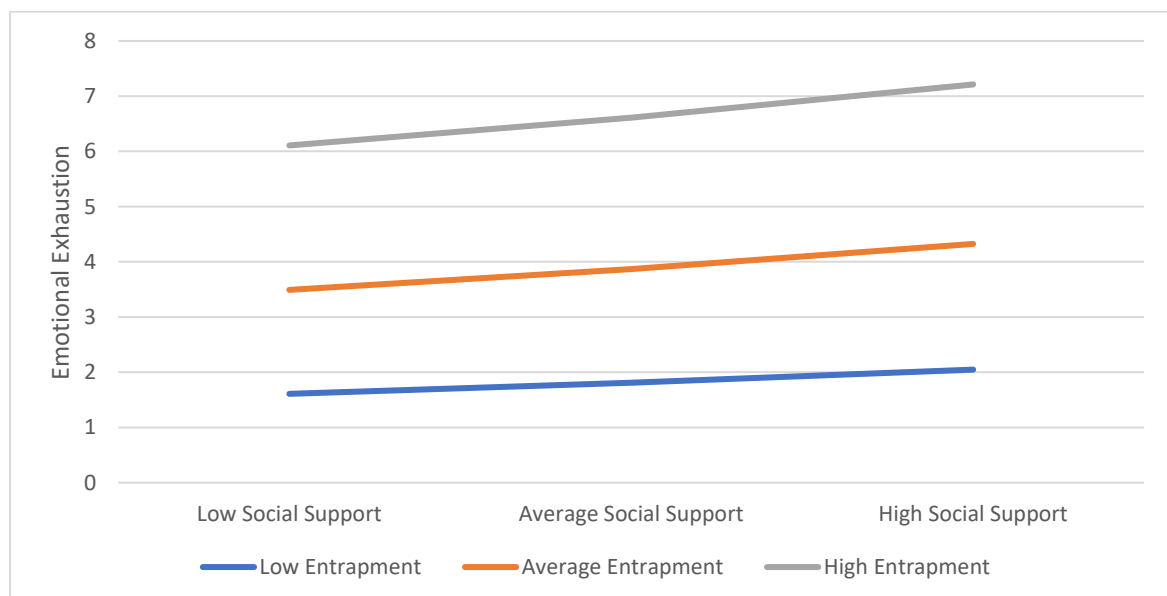


Figure 3.1: Interaction graph depicting the moderation analysis of social support in the relationship between entrapment and emotional exhaustion.

Moderation effect on Depersonalisation

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 depersonalisation levels in coaches: $R^2=.37$, $F(2, 231) = 67.73$, $p < .001$ (3.3). 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 didn't account for significant proportion of the variance in depersonalisation: $\Delta R^2=.001$, $\Delta F(1, 230) = .530$, $p = .84$, $b = .032$, $t(230) = .728$, $p = .47$ (3.4). The interaction can be seen in figure 3.2. This analysis shows no moderation effect of social support in the relationship between entrapment and depersonalisation, thus meaning $H3_0$ is rejected.

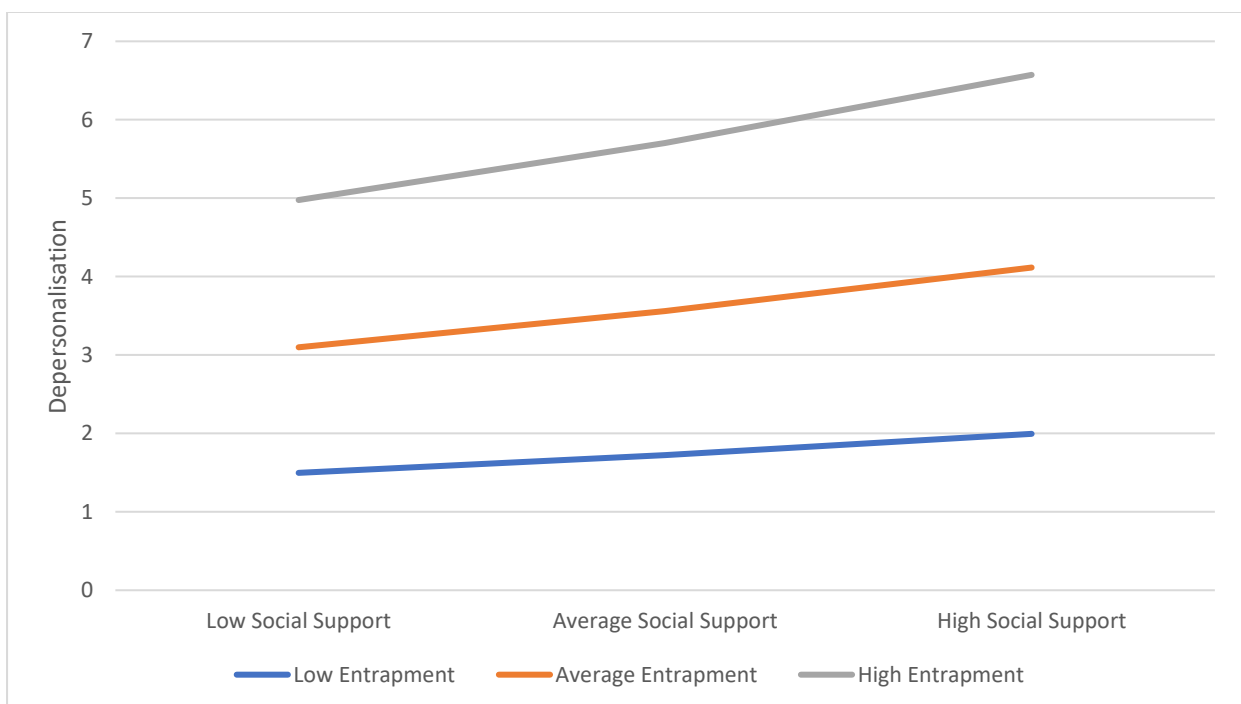


Figure 3.2: Interaction graph depicting the moderation analysis of social support in the relationship between entrapment and depersonalisation.

Moderation effect on Reduced Personal Accomplishment

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 reduced personal accomplishment levels in coaches: $R^2=.28$, $F(2, 231) = 45.08$, $p < .001$ (3.5). 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 didn't account for significant proportion of the variance in reduced personal accomplishment: $\Delta R^2=.000$, $\Delta F(1, 230) = .043$, $p = .47$, $b = -.008$, $t(230) = -.206$, $p = .84$ (3.6). The interaction can be seen in figure 3.3. This analysis shows no moderation effect of social support in the relationship between entrapment and reduced personal accomplishment, thus meaning $H3_0$ is rejected.

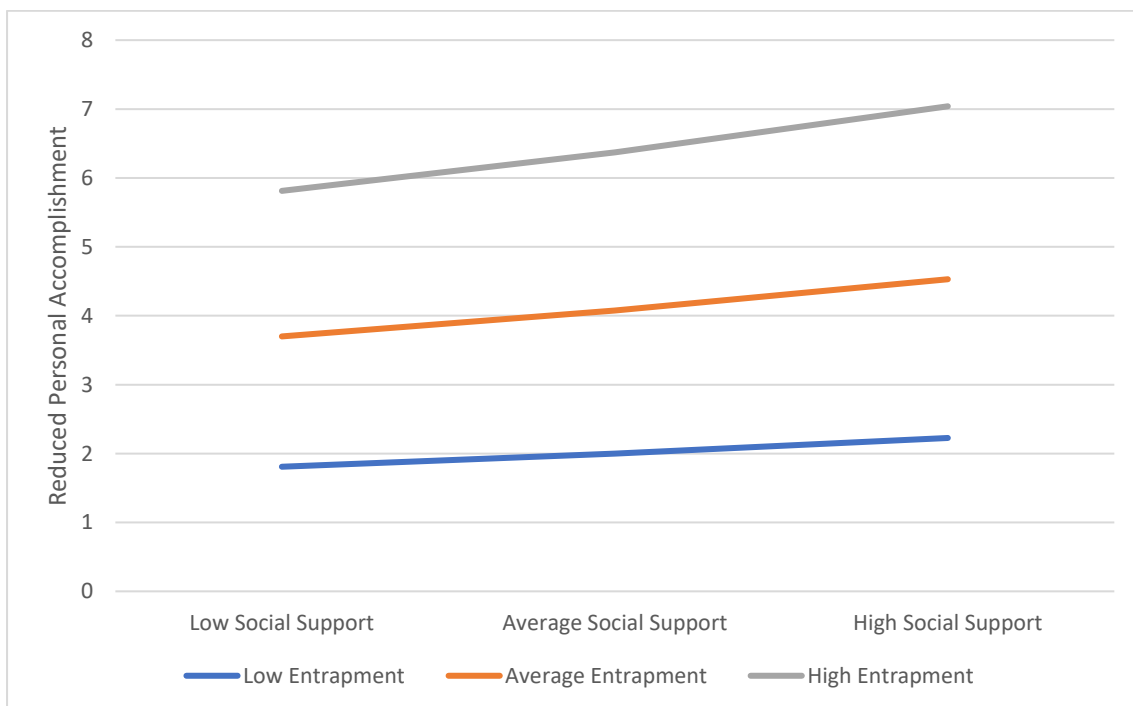


Figure 3.3: Interaction graph depicting the moderation analysis of social support in the relationship between entrapment and reduced personal accomplishment.

Testing Research Hypothesis 4 (H4₁)

Linear Regression Examining the relationship between Emotional Exhaustion and Social Support

A simple linear regression was conducted to test the relationship between emotional exhaustion and social support. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .233 showing that social support is responsible for 23.3 per cent of variance in emotional exhaustion experienced by a coach. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 70.28, p < .001$) indicating that the model was meaningful. Social Support was significantly related to emotional exhaustion ($\beta = -.31, p < .001$). Significant path coefficients are indicated in figure 4. The final predictive equation was:

Level of burnout (emotional exhaustion) = $3.65 + (-0.31 * \text{social support})$.

Linear Regression Examining the relationship between Reduced Personal Accomplishment and Social Support

A simple linear regression was conducted to test the relationship between reduced personal accomplishment and social support. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .299 showing that social support is responsible for 29.9 per cent of variance in reduced personal accomplishment experienced by a coach. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 98.75, p < .001$) indicating that the model was meaningful. Social support was significantly related to emotional exhaustion ($\beta = -.44, p < .001$). Significant path coefficients are indicated in figure 4. The final predictive equation was:

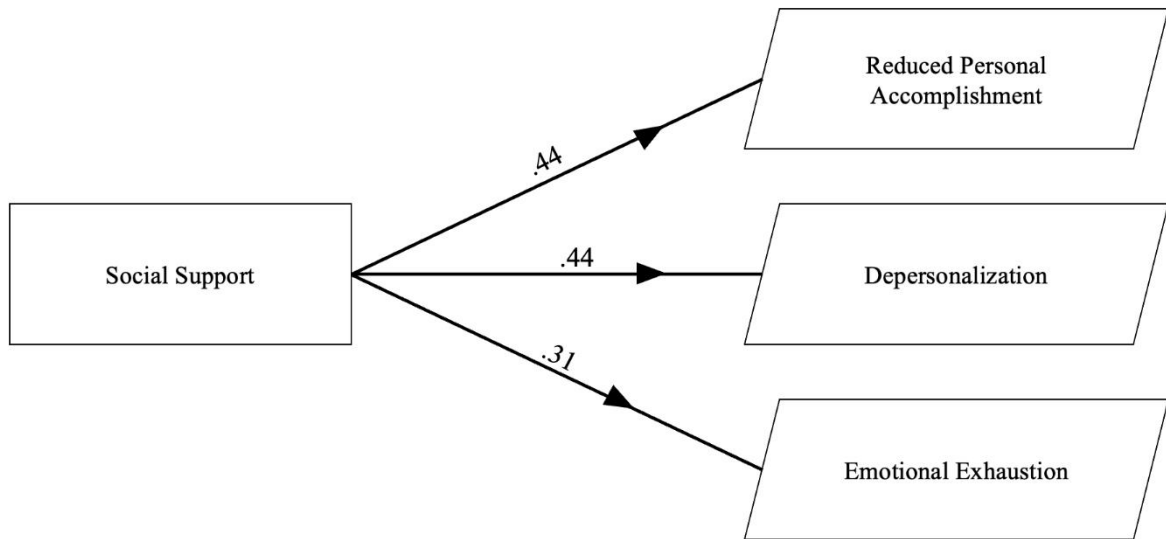
Level of burnout (reduced personal accomplishment) = $4.08 + (-0.44 * \text{entrapment})$.

Linear Regression Examining the relationship between Depersonalisation and Social Support

A simple linear regression was conducted to test the relationship between depersonalisation and social support. Descriptive statistics and internal reliability estimates can be found in table 1. The R-square value for this regression was .196 showing that social support is responsible for 19.6 per cent of variance in depersonalisation experienced by a coach. The results of the associated ANOVA showed that this was a significant amount of the variance ($F = (1, 232) 56.64, p < .001$) indicating that the model was meaningful. Social support was significantly related to depersonalisation ($\beta = -.44, p < .001$). Significant path coefficients are indicated in figure 4. The final predictive equation was:

Level of burnout (depersonalisation) = $4.35 + (-0.44 * \text{entrapment})$.

H4₁ looks to explore the relationship between social support and the three dimensions of burnout in an attempt to give organisations a greater understanding of where support will be more efficient for coach burnout. The three linear regressions examining the relationship between social support and the three dimensions of coach burnout have all shown significant relationships thus meaning H4₀ is rejected.



Only significant path coefficients are included.

Figure 4: Significant pathways between the three dependant variables (reduced personal accomplishment, emotional exhaustion, and depersonalization) and the independent variable (social support).

Discussion:

The objective of this research project is to establish a greater understanding of the relationship between entrapment and coach burnout, with an additional focus on the impact social support has on both the aforementioned relationship and its impact on burnout as a single entity. The findings of this study focus on the correlation between entrapment, social support and the three dimensions of burnout: emotional exhaustion, reduced personal accomplishment and depersonalisation with an additional examination of the moderating effect of social support.

During examination of the participants overall burnout levels a positive for the coaching community arose. The mean score for each dimension of burnout was relatively low (DP $\mu=1.96$, EM $\mu=2.32$, RA $\mu=2.16$) showing that, despite the impact of COVID-19, coaches are still coping in regards to burnout (Taku and Arai, 2020). Although burnout levels across the three dimensions are generally low, participants did show correlations between entrapment, social support and burnout.

When looking at burnout in general a significant positive relationship between entrapment and burnout ($r(234) = .624, p < .001$) was discovered showing that entrapment does impact on a coach's burnout levels. Upon further investigation entrapment was found to be responsible for the variance in reduced personal accomplishment (19.4 per cent), emotional exhaustion (36.2 per cent) and depersonalisation (26.4 per cent). This remains consistent with past literature with Hendrix et al. (2000) and Malinauskas et al. (2010) discussing the impact of perceived stress on burnout, Kelley (1994) and Martin et al. (1999) finding the impact of coaching stress on burnout and Raedeke (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004) and Collins (2003) presenting the impact of entrapment on burnout.

Additionally, social support was also found to be responsible for the variance in reduced personal accomplishment (29.9 per cent), emotional exhaustion (23.2 per cent) and depersonalisation (19.6 per cent). Again, this remains consistent with past literature, with Kelley (1992) examining the stress appraisal leading to burnout in collegiate teacher-coaches. Kelley inferred that higher levels of social support led to coaches giving a lower stress appraisal. Therefore, this shows that an individual had less chance of burning out (Kelley, 1994; DeFreese and Smith, 2013).

Entrapment and the correlation with burnout

During the examination of the correlation between entrapment and burnout (irrespective of the three dimensions) the results of a Pearson Correlation Coefficient showed a significant positive relationship between entrapment and total burnout, $r(234) = .624, p < .001$. This shows that a coach's perceived entrapment affects the level of burnout they are experiencing. In lay terms, as a coach feels more entrapped, they are more likely to be experiencing burnout in the total form.

Interestingly, the link between entrapment and burnout has been described as precarious (Raedeke, 2004) with a lack of sufficient significant correlation being discussed (Gustafsson, et al., 2008). However, Raedeke (1997) discussed entrapment as being correlated to burnout through a coach's commitment perspective with Collins (2003) and Woodruff (2021) both finding results to support the correlation between entrapment and burnout.

Further consideration is due towards the dichotomisation of burnout in relation of the correlation to entrapment. During data analysis the participants were categorised into two groups: burnt-out (> 2.12) and not burnt-out (< 2.12) through dichotomisation at the mean score (Malinauskas

et al., 2010). A significant difference was found in the level of entrapment a coach was experiencing between being burnt out and not burnt out ($t_{161.65} = -7.93, p < .001$). As with the results of the Pearson Coefficient Correlation this shows a strong correlation between the level of entrapment a coach feels and their category of burnout (burnt-out or not burnt-out).

In addition to this, the average entrapment score on the SDES for burnt out coaches ($n=110$) was .71 higher than the average entrapment score on the SDES for non-burnt-out coaches ($n=124$). This illustrates a clear divergence between the groups regarding their perceived entrapment meaning that a coach experiencing higher levels of entrapment is more likely to be burnt-out, thus supporting the conclusion of Malinauskas et al. (2010), Collins (2003) and Woodruff (2021).

In summary, as a coach feels entrapment in relation to their coaching situation, the level of burnout they experience increases. Therefore, the null hypothesis (H_{10}) that entrapment has no correlation with a coach's burnout levels, is rejected.

Entrapment and the correlation with the three dimensions of burnout

In order to investigate the relationship between entrapment and burnout in greater detail, the individual relationships between entrapment and each dimension of burnout (emotional exhaustion, reduced personal accomplishment and depersonalisation) were examined (Kelley, 1994; Woodruff, 2021).

Entrapment and the correlation with emotional exhaustion

Entrapment was discovered to significantly correlate to emotional exhaustion ($\beta=.76, p < .001$) with it accounting for 36.2 per cent of variance in emotional exhaustion meaning that

entrapment effects the likelihood of a coach experiencing emotional exhaustion. When feeling entrapped an individual feels like they have no 'fight' left to give (Gould et al., 2009) showing a potential link between entrapment and precursory depression thoughts, an element of emotional exhaustion, which could explain this relationship.

When considering a more comprehensive diagnosis of the relationship various elements of entrapment should be discussed. Personal factors, such as family, location and financial issues, that lead to entrapment have been linked to emotional exhaustion (Altfeld et al., 2015) meaning these issues may be causes of coach burnout through the emotional exhaustion dimension.

Additionally, Raedeke (2004) discusses entrapped coaches as having an emphasis on negatives within their situation, something that Altfeld et al. (2015) links to emotional exhaustion in coaches through a focus on continuous negative performance. Consideration needs to go to the various level of coaches here, as not all coaches have a pressure to perform (for example grassroots Under 6 coaches) so an emphasis on negative results won't affect certain individuals therefore would not lead to their burnout (Robbins et al., 2015). That being said, this shows a link between a specific element of entrapment and emotional exhaustion thus allowing for a focus on the triggering factors of burnout through the emotional exhaustion dimension. In this case, there is an argument that family issues, location pressure, financial struggles and continuous negative results (Altfeld et al., 2017) (all linked to entrapment) could be causes of emotional exhaustion.

It is important to gain an understanding of the focused causes of emotional exhaustion in order to mitigate against it to avoid unwanted adversity. For example, if a coach is experiencing

emotional exhaustion their athletes are likely to have reduced outcomes (Arens and Morin, 2016) and their performance is likely to be affected (Collins, 2003).

Entrapment and the correlation with reduced personal accomplishment

Entrapment was discovered to significantly correlate to reduced personal accomplishment ($\beta=.36$, $p < .001$) with it accounting for 19.4 per cent of variance. This shows that entrapment effects the likelihood of a coach experiencing feelings of reduced personal accomplishment. The correlation of entrapment and feelings of reduced personal accomplishment could be interpreted through the overwhelming nature of both entrapment (Raedeke, 2004) and reduced personal accomplishment (Rumschlag, 2017).

When attempting to understand the link between entrapment and reduced personal accomplishment in greater detail consideration must go to the elements of entrapment most likely to cause burnout through reduced personal accomplishment. Raedeke (1997) mentions that entrapped coaches don't see moving organisations or changing careers as an option with a potential reason as to why being a lack of self-belief, otherwise referred to as feelings of reduced personal accomplishment (Raedeke et al., 2000).

Additionally, entrapped coaches have a tendency to focus on negative aspects of their current situation (Raedeke, 2004; Rusbult, 1983) meaning they could spiral into feelings of reduced personal accomplishment through negative thoughts and feelings brought about by entrapment. Therefore, there is an argument that negative aspects such as not feeling able to quit, a lack of self-belief (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004) and a focus on the negative aspects of their role (Rusbult, 1983) are key drivers in the relationship between entrapment and burnout through reduced personal accomplishment.

It is important to gain an understanding of the focused causes of reduced personal accomplishment in order to mitigate against it to avoid unwanted adversity. For example, if a coach is experiencing feelings of reduced personal accomplishment in their current situation they may be blindsided to alternate opportunities of personal progression (Rusbult, 1983).

Entrapment and the correlation with depersonalisation

A significant correlation between entrapment and depersonalisation was discovered ($\beta=.53$, $p < .001$), with entrapment accounting for 26.4 per cent of the variance in depersonalisation meaning that it effects the likelihood of a coach experiencing depersonalisation. Therefore, is reasonable to suggest that an entrapped coach may experience symptoms of depersonalisation, such as reduced social skills (Maslach, 1982), defensive behaviour when given constructive criticism (Ashforth and Lee, 1990) and a cold and robotic persona (Rumschlag, 2017). If a coach is experiencing these symptoms, 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 mitigating against their risk of eventually burning out through the depersonalisation dimension.

The relationship between entrapment and depersonalisation could be explained through shared characteristics, such as feelings towards stakeholders changing (Gustafsson et al., 2008). Within depersonalisation an individual is likely to feel differently towards those around them (Maslach, 1986), which is linked to entrapment when changing feelings to those they work with (peers/athletes/employers) leaves an individual feeling entrapped (Gustafsson et al., 2008).

It is important to gain an understanding of the focused causes of depersonalisation in order to mitigate against it to avoid unwanted adversity. For example, if a coach is experiencing feelings of depersonalisation in their current situation, they may be cold and distant with their athletes thus affecting their performance outcomes (Arens and Morin, 2016).

Considerations of entrapment's correlation to the three dimensions of burnout

The relationship between entrapment and the three dimensions of burnout (emotional exhaustion, reduced personal accomplishment and depersonalisation) demonstrates that entrapment has a significant impact on the likelihood of a coach burning out, explaining Raedeke's (2004) discussion of entrapment through lack of alternate attractive offers being a primary cause for coach burnout. It is important to consider how to mitigate against burnout to safeguard a coach's well-being (Woodruff, 2021). Aside from increasing an individual's mental and physical well-being, it is important to safeguard coaches from burnout as it has been discovered to affect athlete's performances (Altfeld, et al., 2015).

Throughout the analysis various elements related to entrapment were proposed to explain the relationship between entrapment and burnout further. The correlation to all three dimensions of burnout could be explained by the following elements related to entrapment:

- There is an argument that family issues, location pressure, financial struggles and continuous negative results (Altfeld et al., 2015) could be causes of emotional exhaustion.
- It appears that negative aspects such as not feeling able to quit, a lack of self-belief (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004) and a focus on the negative

aspects of their role (Rusbult, 1983) are key drivers in the relationship between entrapment and reduced personal accomplishment.

- Characteristics to look for when selecting coaches for early intervention could include: reduced social skills (Maslach, 1982), defensive behaviour when given constructive criticism (Ashforth and Lee, 1990) and a cold and robotic persona (Rumschlag, 2017).

In lay terms, when considering safeguarding a coach from burnout, the elements mentioned above may be instrumental in providing a preliminary support framework. If a coach is experiencing the above elements and symptoms, the practical recommendation would be to reduce commitment loads (Raedeke, 2004) and spread responsibility amongst other coaches followed by the implementation of a personalised support plan. However, further research is required for a greater understanding of the impact of the elements mentioned above on coach burnout.

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 for the further break down of the relationship between entrapment and burnout in coaches. This increased understanding allows for more efficient support for coaches to prevent and mitigate against burnout. With this study looking at burnout in a more complex context through examining the three different dimensions of burnout, compared to Raedeke (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.

Unexpected Findings

Based on previous research a moderation interaction between entrapment and any of the three burnout dimensions was expected (Woodruff, 2021), however no moderation effect was found in this study. Previously Woodruff (2021) found a moderating effect of social support on the relationship between both entrapment and two dimensions of burnout: emotional exhaustion ($\Delta R^2 = .24$, $\Delta F(1, 86) = 3.88$, $p = .01$, $b = -.12$, $t(86) = -1.97$, $p = .01$ (4.1)) and depersonalisation ($\Delta R^2 = .19$, $\Delta F(1, 86) = 2.7$, $p = .01$, $b = -.1$, $t(86) = -1.63$, $p = .01$ (4.2)) leading to the findings of this study being unexpected. Social support has also been discussed as moderating a relationship between burnout and stress, with Lu et al. (2016) finding it to be an effective moderator of the relationship after the two variables were investigated as conjunctive moderators.

Additional support for social support moderating relationships with coach burnout comes from 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. One possible explanation for the lack of a moderation interaction in this study is the absence of longitudinal consideration, with the change of social support not being examined as a change over time, although Kelley (1994) used a linear study when constructing her model for burnout in coaches and found a moderation effect. Additional consideration must go to the multidimensional aspect of burnout leading to it affecting everyone differently (Maslach, 1986) meaning a different sample may present a moderation effect.

Further research is required to understand the moderation effect of social support on the relationships between entrapment and coach burnout as at present there is no consensual agreement of its impact. In general, further research into this will benefit coaches' well-being by providing a greater understanding of the role social support plays in coach burnout (Wood et al., 2010).

Social support and the correlation with burnout

Social support was found to correlate to emotional exhaustion ($\beta=-.31$, $p < .001$), reduced personal accomplishment ($\beta=-.44$, $p < .001$) and depersonalisation ($\beta=-.44$, $p < .001$), supporting the findings of Kelley (1994). Additionally, social support was found to account for significant variance amongst the three dimensions of burnout: emotional exhaustion (23.3 per cent), reduced personal accomplishment (29.9 per cent) and depersonalisation (19.6 per cent). The nature of the correlation was strongly negative, meaning that higher levels of social support help to reduce a coach's likelihood of burnout. 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).

When considering the individual dimensions there is substantial difference in depersonalisation, reduced personal accomplishment and emotional exhaustion 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 which could be explained by social support providing mitigation to key stressors in coaches (Kelley, 1994).

In the case of this study, it could be argued that social support helps mitigate against a variety of elements of entrapment including, but not limited to: family issues, location pressure,

financial struggles and continuous negative results (Altfeld et al., 2017); not feeling able to quit, a lack of self-belief (Raedeke, 1997; Raedeke et al., 2000; Raedeke, 2004) and a focus on the negative aspects of their role (Rusbult, 1983); and reduced social skills (Maslach, 1982), defensive behaviour when given constructive criticism (Ashforth and Lee, 1990) and a cold and robotic persona (Rumschlag, 2017).

Higher social support for coaches could reduce the aforementioned characteristics, therefore reducing entrapment and the likelihood of burnout. Because of this building an effecting support network for coaches should be a priority for organisations. The correlation between social support and burnout shows practical positives for the coaching community in regard to burnout, 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

Research Hypothesis 1 (H1₁)

The findings of this study provide support for H1₁ through the discovery of a positive correlation between entrapment and burnout ($r(234) = .624, p < .001$). This shows that a coach's perceived entrapment effects the level of burnout they are experiencing. In lay terms, as a coach feels more entrapped, they are more likely to be experiencing burnout in the total form. This is supported by Raedeke (1997) discussing entrapment as being corelated to entrapment through a coach's commitment perspective with Collins (2003) and Woodruff (2021) both finding results to support the corelation between entrapment and burnout.

A further examination of the correlation between entrapment and burnout also provides support for H1₁ with a significant difference was found in the level of entrapment a coach was experiencing between being burnt out and not burnt out ($t_{161.65} = -7.93, p < .001$). As with the results of the Pearson Coefficient Correlation this shows a strong correlation between the level of entrapment a coach feels and their category of burnout (burnt-out or not burnt-out). In addition to this, the average entrapment score for burnt out coaches (n=110) was .71 higher than the average entrapment score for non-burnt-out coaches (n=124) again supported by the conclusion of Malinauskas et al. (2010), Collins (2003) and Woodruff (2021).

Because of the reasons detailed above, the null hypothesis H1₀ is rejected.

Research Hypothesis 2 (H2₁)

The findings of this study provide support for H2₁ through the discovery of a positive correlation between entrapment and the three dimensions of burnout.

Entrapment was found to have a strong positive correlation with emotional exhaustion ($\beta = .76, p < .001$) with it accounting for 36.2 per cent of variance in emotional exhaustion meaning that entrapment effects the likelihood of a coach experiencing emotional exhaustion. Support for the correlation comes from Gould et al. (2009) discussing a potential link between entrapment and emotional exhaustion, with Raedeke (2004) also supporting the correlation through discussing entrapped coaches as having an emphasis on negatives within their situation, something that Altfeld et al. (2017) links to emotional exhaustion in coaches through a focus on continuous negative performance.

Entrapment was found to have a strong positive correlation to reduced personal accomplishment ($\beta=.36$, $p < .001$) with it accounting for 19.4 per cent of variance in reduced personal accomplishment meaning that entrapment effects the likelihood of a coach experiencing burnout. This relationship is supported through the shared characteristic between entrapment and reduced personal accomplishment: an overwhelming nature (Raedeke, 2004; Rumschalg, 2017). Additionally, coaches have a tendency to focus on negative aspects of their current situation (Raedeke, 2004; Rusbult, 1983) also providing support for the correlation.

Entrapment was found to be positively correlated to depersonalisation ($\beta=.53$, $p < .001$), with entrapment accounting for 26.4 per cent of the variance in depersonalisation meaning that it effects the likelihood of a coach experiencing depersonalisation. This correlation is supported by Maslach (1986) that depersonalisation is linked to entrapment through changing feelings to those they work with (peers/athletes/employers) leaving an individual feeling entrapped (Gustafsson et al., 2008).

Because of the reasons detailed above, the null hypothesis H_{20} is rejected.

Research Hypothesis 3 (H_{31})

The results of this study do not indicate support for H_{31} as social support was not found to moderate the relationship between entrapment and burnout. Social support as a moderator didn't account for significant proportion of the variance in emotional exhaustion ($\Delta R^2=.004$, $\Delta F(1, 230) = 1.48$, $p=.23$, $b=-.066$, $t(230) = -1.22$, $p=.23$ (4.3)), depersonalisation ($\Delta R^2=.001$, $\Delta F(1, 230) = .530$, $p=.84$, $b=.032$, $t(230) = .728$, $p=.47$ (4.4)) or reduced personal accomplishment ($\Delta R^2=.000$, $\Delta F(1, 230) = .043$, $p=.47$, $b=-.008$, $t(230) = -.206$, $p=.84$ (4.5)). This could be considered inconsistent in the scope of coach burnout research (Kelley, 1994;

Woodruff, 2021) and could be explained by the linear nature of this research project. A correlation may have been observed if this study was conducted longitudinally as social support can impact burnout over time (Malinauskas et al., 2010), something to consider in future research surrounding the topic.

Because of the reasons detailed above, we fail to reject null hypothesis H3₀.

Research Hypothesis 4 (H4₁)

The results of this study indicate support for H4₁ as social support was found to correlate to burnout across all three dimensions. Social support was found to correlate to emotional exhaustion ($\beta=-.31$, $p < .001$), reduced personal accomplishment ($\beta=-.44$, $p < .001$) and depersonalisation ($\beta=-.44$, $p < .001$), which is consistent with the findings of Kelley (1994). Additionally, social support was found to account for significant variance amongst the three dimensions of burnout: emotional exhaustion (23.3 per cent), reduced personal accomplishment (29.9 per cent) and depersonalisation (19.6 per cent). The nature of the correlation was strongly negative, meaning that higher levels of social support help to reduce a coach's likelihood of burnout.

Because of the reasons detailed above, the null hypothesis H4₀ is rejected.

Practical Application

An important consideration of all research is the real-world application, particularly for the community that it focusses on, in this case sport coaches.

On the whole a more in depth understanding of the relationship between entrapment and burnout has practical applications for the coaching community as organisations can educate themselves on the interaction thus allowing for mitigation against burnout in coaches (Woodruff, 2021).

Because entrapment is correlated to burnout it would be reasonable to suggest that it could be used to predict a coach's likelihood of burnout, thus meaning organisations and officials could be proactive in providing support before a coach burns out (Woodruff, 2021). Predictive models have been explored within the field previously with Kelley (1994) examining the ability of stress appraisal, alongside other stressors, to predict coach burnout with evidence to suggest predictive properties.

When considering the practical application of the evident correlation between entrapment and burnout, a preliminary test to examine the feasibility of a predictive model used to predict a coach's likelihood of being burnt out based on their level of entrapment was conducted. This test resulted in most effective model returning as Neural Net 1 (NN1), an artificial neural network (ANN) with an accuracy rate of 79.1 per cent (figure 1.1). The potential for error is seen in figure 1.2. A depiction of the predictive model can be found in figure 1.3. This preliminary investigation having 79.1 per cent accuracy of prediction shows potential for further research into generating and validating a predictive model to have practical application in safeguarding coaches from burnout.

Further research into prediction of coach burnout would be beneficial to the coaching community (Raedeke and Kentta, 2013; Woodruff, 2021) as an ability to accurately predict burnout would allow for more appropriate, relevant and effective interventions to safeguard

coaches against burnout thus decreasing coach turnout with a subsequential increase in coaching continuity (Raedeke and Kentta, 2013; Woodruff, 2021), increasing performance outcomes (Arens and Morin, 2016), decreasing the chance of poor performance (Collins, 2003) and leaving coaches open to alternate opportunities of personal progression (Rusbult, 1983) with better general mental well-being (Kelley, 1994).

In addition to the preliminary examination of a predictive model, each linear regression between entrapment and the three dimensions of burnout indicated predictive formulas that could be used to predict burnout levels in a coach through their entrapment scores alone. The equations are as follows:

- Level of burnout (emotional exhaustion) = $1.76 + (0.76 * \text{entrapment})$.
- Level of burnout (reduced personal accomplishment) = $1.94 + (0.36 * \text{entrapment})$.
- Level of burnout (depersonalisation) = $1.64 + (0.53 * \text{entrapment})$.

These equations are in no way ready for practical application and would need validation before use in the field, but they indicate a positive opportunity within the research field for further exploration. As above, the generation of a successful method used to predict coach burnout would benefit the coaching community by reducing burnout levels in coaches (Kelley, 1994; Woodruff, 2021) thus making it a candidate for further research.

Limitations

As with any research there are potential limitations to this study. These were debated in the proposal phase of the project, but the design used was deemed most appropriate for the context of this study and the deadline imposed. The first limitation to consider is the time constraints

associated with a Masters dissertation (Leiner, 2014) meaning a longitudinal study was not possible leaving a lack of consideration of the changes in burnout over time. That being said, Kelley (1994) used a linear study when constructing her model for burnout in coaches showing its merit.

A second limitation to discuss is the validity of an online, self-administered, survey. There is scope for misunderstanding when a participant completes an online survey (Sukamolson, 2007) meaning consideration has to go to the validity of the dataset, however researchers frequently use online data collection methods successfully (Moises, 2020).

Additionally, a limitation worth considering is the sampling method used. A probability-based sample involving choosing samples from a population to represent the wider population more accurately is the most commonly used sampling method for quantitative data (Sharma, 2017). However, snowball sampling, a form of a non-probability-based convenience sampling, was used in data collection. Despite not being able to determine sampling errors with snowball sampling, it does allow for time-restricted data collection (Sharma, 2017) which is necessary with the time constraints of a Masters dissertation (Leiner, 2014).

Opportunities

An opportunity to progress this research further would be to conduct a longitudinal study to allow for an examination of burnout as a dynamic and changing entity (Burisch, 2002). This is conducive to the discovery of the effects of a sporting season on coach's burnout levels while testing the findings of this study.

Another opportunity for progression is further investigate the moderation effect of social support on the various dimensions of burnout as this remains an inconsistent subject within the field (Kelley, 1994; Woodruff, 2021). The benefits of a greater understanding of the most efficient way to provide sports coaches support for mitigating burnout in across their coaching journey include career longevity (Raedeke, 2004; Rusbult, 1983), better performance (Altfeld et al., 2017) and better overall well-being (Kelley, 1994).

The development and validation of a predictive model used to predict the relationship between entrapment and burnout could allow organisations and officials could be proactive in providing support before a coach is burnt-out (Woodruff, 2021). Predictive models have been explored within the field previously with Kelley (1994) but not within the context of entrapment leaving a potential gap to explore.

Conclusion

Through exploration into the relationship between entrapment and burnout in sports coaches, this research project has found entrapment to be significantly correlated to the three dimensions of burnout thus could be used to predict a coach's likelihood of burnout based on the level of entrapment they're experiencing. A precursory predictive model was generated with 79.1 per cent accuracy of predicting coach burnout from entrapment levels showing a possibility that a robust predictive model could be constructed and validated in further research. The successful creation of a predictive model in subsequent research would be of great benefit to the coaching community through allowing organisations to be proactive not reactive to burnout.

In addition to this, social support was found to significantly correlate to the three dimensions of burnout meaning that a robust support network helps reduce a coach's chance of burnout. Social support was also examined in the role of a moderator in the interaction between entrapment and burnout to further explore potential mitigating factors (Kelley, 1994; Woodruff, 2021). However, no moderation effect in the interaction term was found leading to more questions being asked over the dynamic nature of social support and burnout.

Overall, this research contributes to the wider academic field by building the understanding of the relationship between entrapment and burnout (Raedeke, 1997; Raedeke, 2000, Raedeke, 2004) and on Kelley's (1994) model for predicting burnout in coaches. The findings provide a platform for further research into predicting burnout by measuring the three dimensions separately as discussed by Maslach (1982) allowing for a more accurate understanding of burnout in coaches. Further research could focus on further examination of the moderation effect of social support with the findings of this research differing from those of Kelley (1994) and Woodruff (2021). There is a potential to use a greater of understanding to focus support in

the most efficient way and on the correlation between coaching stress and the three dimensions of burnout.

When considering a practical impact, the coaching community can use these findings to further their understanding of potential correlates to burnout through entrapment and use this knowledge to safeguard themselves (and coaches working for their organisation if applicable) by adjusting coaching workloads, monitoring coach behaviour and implementing mitigating processes based on the correlates discussed. Furthermore, an organisation can see that social support negatively correlates to burnout thus meaning a stronger support network will reduce coach burnout, something that could be written into policy and practice.

The implementation of the discussed development opportunities should be considered as this could be hugely beneficial to the coaching community. The advancement an understanding of the relationship between entrapment and burnout (used in conjunction with the current literary field as a foundation) leads to the proposition of the following recommendations:

- Further research should be conducted into whether social support acts as a moderator between entrapment and burnout.
- A longitudinal study should be completed designed to understand the dynamic and multidimensional nature of burnout across a coaching season.
- Further study into the possibility of generating a method for accurately predicting burnout based on the level of entrapment a coach feels should be conducted.
- Further research on the intricacies, characteristics and elements of entrapment and their effects on coach burnout should be conducted.
- Coaching organisations should write the consideration of entrapment leading to burnout into training policy to safeguard coaches working for them.

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