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 Empirical <sup>1</sup>

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<b>Supervisor:</b>	DR. RICH NEIL		
<b>Comments</b>	<b>Section</b>		
	<p><b>Title and Abstract (5%)</b>          Title to include: A concise indication of the research question/problem.          Abstract to include: A concise summary of the empirical study undertaken.</p>		
	<p><b>Introduction and literature review (25%)</b>          To include: outline of context (theoretical/conceptual/applied) for the question; analysis of findings of previous related research including gaps in the literature and relevant contributions; logical flow to, and clear presentation of the research problem/ question; an indication of any research expectations, (i.e., hypotheses if applicable).</p>		
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**CARDIFF METROPOLITAN UNIVERSITY**  
**Prifysgol Fetropolitan Caerdydd**

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**STRESSORS, COPING AND COPING  
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COMPETITION**

**PSYCHOLOGY**

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## **Abstract**

The purpose of this study was to discover the effectiveness of coping strategies used by professional and amateur rugby union players to deal with the most common stressors experienced during performance, and to discover why identified strategies were perceived to be effective or ineffective.

Professional (N=4) and amateur (N=4) rugby union players recorded stressful experiences in a diary after three consecutive rugby matches before taking part in a semi-structured interview to discuss stressors, coping and coping effectiveness in greater depth. Coping effectiveness was measured using a Likert-type scale.

The main findings indicate that professional and amateur rugby union players experience similar stressors and employ similar coping strategies, with professional players using slightly more avoidance coping strategies. The professional participants viewed the use of coping strategies as generally more effective than the amateur participants. The most significant finding was that in instances where different coping strategies were used to manage the same stressor the professional participants perceived their coping usage as more effective. Upon analysing reasons for coping effectiveness, the quality of the implementation of a coping strategy arose as a possible affecting factor regarding coping effectiveness.

Further research into the variables that influence coping effectiveness is necessary to improve the knowledge base for coaches and sports psychologists who are planning interventions.

# **CHAPTER ONE**

## **INTRODUCTION**

## **1.1 Introduction**

The nature of the competitive sporting environment is challenging, encompassing many demands, and a failure to cope in such stressful situations can result in poor performance (Mellalieu, Neil, Hanton and Fletcher, 2009). Consequently, a copious amount of research has been conducted in relation to athletes' experience of stress in the competitive environment. This chapter briefly discusses the demands facing rugby union players and the importance of coping effectively with these demands. Finally the purpose of the current study is provided.

## **1.2 Professionalisation of rugby union**

The professionalisation of rugby union in the 1996/97 season has had a significant impact on the type of demands that rugby union players face (Nicholls, Holt, Polman and Bloomfield, 2006). Research suggests that common demands for rugby union players during performance are related to physical errors, mental errors and injury (Nicholls et al., 2006). Indeed since the sport became professional there has been a vast increase in injuries among professional and amateur players as they try to adapt to the increased physical robustness of the game (Garraway, Hutton, Russell, and Macleod, 2000). Off the pitch players have experienced demands related to tiredness, health, recovery and diet (Nicholls, Backhouse, Polman, and McKenna, 2009a). Extensive research in sport science has investigated the physiological aspects of the game and explored the advantages of performance analysis in an attempt to enhance performance (Deutsch, Maw, Jenkins and Reaburn, 1998; Duthie, Pyne, and Hooper, 2003; Lim, Lay, Dawson, Wallman and Anderson, 2011), yet until recently minimal research concerning the psychological demands that rugby union players face has been undertaken. This is surprising as the stress associated with believing one cannot cope with such demands is considered to be a "major factor in the ability of athletes to fully and effectively utilise their skills in diverse types of performance" (Lazurus, 2000, p. 229).

### **1.3 Coping**

Coping with the demands faced during rugby union is essential to the attainment of elite performance (Nicholls and Polman, 2007). The inability to cope with demands in sport can cause unwanted consequences; the most prevalent being a decrease in performance (Anshel, Williams and Williams, 2000), becoming injured (Nicholls et al., 2006), decreased satisfaction (Lazarus, 2000) and sport withdrawal (Nicholls and Polman, 2007). Sometimes players are successful in their attempts to cope and sometimes they are not. Consequently, sport psychology research related to understanding effective coping provides sport psychologists, sport coaches and players with a knowledge base that can assist them when deciding which coping strategy to use in which situation, therefore improving the chances of successful performances (Nicholls Holt, and Polman, 2005a).

### **1.4 Purpose of the study**

The purpose of the current study therefore, was to (1) explore the stressors that professional and amateur rugby union players face during performance; 2) discover the coping strategies that were used to deal with these stressors; and, 3) evaluate the perceived effectiveness of these coping strategies. The evaluation of perceived coping effectiveness provides a progression for the stress and coping research as it potentially provides insight into which coping strategies athletes use and whether they find these strategies effective, and delivers an analysis of *why* these strategies are deemed effective.

# **CHAPTER TWO**

## **LITERATURE REVIEW**

## **2.1 Introduction**

The literature review will provide a critique of the relevant stressor, coping and coping effectiveness research in a comprehensible manner before providing a rationale for the current study. Stress is first defined before stressor, coping and coping effectiveness research topics are explored respectively. In each section, terms are defined and discussed and previous research is explored.

## **2.2 Defining Stress**

Lazarus and Folkman (1984) stated that stress is a “relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources” (p. 19). Previous stress literature has defined stress from a stimulus-based perspective suggesting that stress is an environmental or independent variable (Neil, Fletcher, Hanton and Mellalieu, 2007) and also from a response based perspective which conceives stress as a person or dependant variable. Limitations of these perspectives are that they do not account for individual differences in the way in which people respond to demands (Neil et al., 2007).

The interactional perspective provides a more convincing attempt to conceptualise stress as it concentrates on the interactions between an individual and their environment and the individuals resultant responses to this interaction. However this perspective is unsuccessful in explaining how each variable interacts (Neil et al., 2007). Fletcher, Hanton and Mellalieu (2006 p. 329) used Lazarus' conceptualisation of stress to provide a definition of stress in the competitive sporting environment, “an on-going process that involves individuals transacting with their environments, making appraisals of the situations they find themselves in, and endeavouring to cope with any issues that may arise”. Stress in the competitive environment emanates from performance-related sources and organisational-related sources (Neil et al., 2007). Competitive stress is suggested to be a continual transaction between an individual and the environmental demands that individual faces that are associated predominantly with competitive performance (Hanton, Fletcher and Coughlan, 2005). This view of stress from a transactional perspective emphasises that a person's transaction with the environment is central to the stress

experience (Neil et al., 2007). The transactional view of stress therefore provides a more dynamic and complex view of stress which accounts for the way in which an individual, the environment and an individual's psychological responses all affect each other. More specifically, it proposes that environmental demands and personal characteristics have an influence on how an athlete responds to a situation. The response of the individual, through the processes of coping and adapting, subsequently "affect environmental conditions, personal resources, and future reactions" (Neil et al., 2007, p. 25) The transactional perspective then, understands stress as a continual transaction between a person's resources, the demands being placed upon them and the resultant strain due to the disparity between the demands and a person's resources to cope with these demands (Lazarus and Folkman, 1984).

### **2.3 Stressors**

Stressors in the competitive environment are suggested to be, "the environmental demands (i.e. stimuli) associated primarily and directly with competitive performance" (Thomas, Mellalieu, and Hanton, 2009, p. 126). Many studies have been conducted in relation to the different types of stressors that athletes face (Mellalieu et al., 2009; Nicholls et al., 2006; Nicholls and Polman, 2007). Nicholls et al. (2006) identified injury, making a physical error and making a mental error to be the most common types of stressors faced by professional rugby union players. Other common stressors encountered by performers across stress research include watching other competitors, weather conditions, goals and expectations, fear of failure and lack of form (Mckay, Niven, Lavellee and White, 2008; Nicholls and Polman, 2007; Thelwell, Weston, and Greenlees, 2007; Mellalieu et al., 2009; Woodman and Hardy, 2001). In a competitive setting an athlete faces both competitive and organisational stressors which he or she must deal with using coping strategies (Woodman and Hardy, 2001). Hanton et al. (2005) compared the content and quantity of competitive and organisational stressors in elite athletes and found that athletes experience nearly 4 times as many organisational demands than competitive demands, suggesting that the stressors faced away from performance are a significant factor to consider in the study of stress. This has been supported by other research (Mckay et al., 2008). In contrast with these findings are those of

Mellalieu et al. (2009) who found that athletes encountered more performance stressors than organisational stressors. This could be explained by the different temporal periods that are examined in each study; Mellalieu et al. (2009) looked purely at the competition environment (1 hour before) whereas Hanton et al. (2005) looked at the athletes day-to-day lives. Although valuable information regarding stressors was collected, neither of the previously mentioned studies analysed how athletes attempted to cope with these stressors. Stressors that are perceived by an individual to have a potentially negative effect on performance must be coped with in order to reduce the undesirable consequences (Nicholls and Polman, 2007).

## **2.4 Coping**

The ability to cope with stress in sport is crucial if an athlete is to attain successful performance (Haney and Long, 1995). If an athlete fails to cope with the stressors that they face then this can have a damaging effect on different psychological processes including concentration, attentional focus and arousal (Anshel et al., 2000). Lazarus and Folkman (1984, p. 141) defined coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” Coping leads to an outcome, which can be perceived as a positive resolution of the stressful situation, a negative resolution of the stressful situation, or as no resolution of the stressful situation (Nicholls, Jones, Polman and Borkoles, 2009b).

There are two widely recognised major functions of coping: emotion focused coping which involves “regulating stressful emotions” and problem focused coping which involves “altering the troubled person-environment relation causing the distress” (Folkman, Lazarus, Dunkel-Schetter, DeLongis and Gruen, 1986, p. 993). Folkman (1992) suggested that problem-focused coping strategies are most effective in controllable situations, while emotion-focused coping strategies are most effective in uncontrollable situations. A third type of coping – avoidance coping – consists of an individual’s behavioural (e.g. walking away) and psychological (e.g. blocking) attempts to extricate themselves from a stressful situation (Krohne, 1993). Krohne (1993) suggested that individuals who are unable to stand high levels of emotional

arousal are likely to use cognitive avoidant coping strategies (e.g. thought stopping) in an attempt to enhance their coping effectiveness.

There has been an array of research that has explored the coping strategies that athletes adopt in order to deal with the stressors present in the competitive environment. (Dugdale, Eklund, and Gordon, 2002; Nicholls et al., 2006; Thelwell et al., 2007). Thelwell et al. (2007) studied coping strategies among professional cricket batsman in an attempt to discover which coping strategies were used to deal with which stressors. Results indicated that players often used positive self-talk to overcome fear of failure and pre-match preparatory strategies to deal with self-induced pressure and technique. Also, when at the crease batters used routines in order to overcome game situation issues and negative external influences from the opposition. Understanding which coping strategies are used to overcome which stressors is important as it allows practitioners to be more educated and precise when intervening with performers (Thelwell et al., 2007). Nicholls et al. (2006) discovered that professional rugby union players used problem focussed coping strategies more than emotion or avoidance based strategies. This finding is consistent with previous research (Nicholls Holt, Polman and James, 2005b) and seemingly occurred due to the higher amount of controllable rather than uncontrollable stressors present. This supports Folkman's (1992) suggestion that problem-focussed coping strategies are most effective in dealing with controllable stressors.

## **2.5 Coping research designs**

Coping research in the past has relied on "between-person, cross-sectional designs" which are unable to explain the dynamic nature of coping processes. (Somerfield and McCrae, 2000, p. 621). More recently however, coping has been investigated using a longitudinal approach in the form of diaries (Nicholls et al., 2005b). Nicholls and Polman (2008) suggest that a limitation across coping literature is the time between a stressful event and the recall of the coping strategies that were used in order to manage the stressful event. A major assumption made within much coping research is that people are capable of accurately recalling their coping behaviours (Stone, Schwartz, Neale, Shiffman, Marco, Hickcox, Paty, Porter, and Cruise, 1998). In order to maximise validity in this sense Nicholls and Polman (2008) studied 5 high

level adolescent golfers and asked participants to think aloud during six holes of golf. This meant errors caused by retrospective recalls were eliminated. They found that the most used coping strategies were planned shot, swing thought and positive appraisal, however Nicholls and Polman (2008, p. 292) noted that thinking aloud “may not capture forms of coping that require time for retrospection to take place”.

Another limitation within coping research is the absence of the examination of coping effectiveness (e.g. Nicholls et al., 2005b). Folkman and Moskowitz (2004) suggested that the underlying motivation for the study of coping is believing that certain coping strategies will be more or less effective than others and that subsequently this information could be used to teach people to cope with stress more effectively. Indeed identifying the extent to which certain coping strategies are effective “would benefit researchers and sport psychology practitioners alike” (Thelwell et al., 2007, p. 231).

## **2.6 Coping Effectiveness**

Coping effectiveness has been defined as “the degree in which a coping strategy or combination of strategies is or are successful in alleviating the negative emotions caused by stress” (Nicholls and Polman, 2007, p. 15). Eubank and Collins (2000) discovered that the coping strategies that resulted in facilitated performance among youth gymnasts and tennis players were positive self-talk, being relaxed, thinking ahead, and maintaining positive focus. Factors that were considered debilitating to performance were uncertainty, preoccupation with significant others, negative self-talk and lack of concentration. Nicholls et al., (2005a) studied coping effectiveness in golf and similarly found that effective coping was associated with positive self-talk and physical relaxation but found that blocking, reappraising, rationalising, following a routine, breathing exercises and seeking on-course social support were also facilitative to performance. Coping strategies associated with ineffective coping were trying too hard, speeding up, routine changes, negative thoughts, and lack of coping. Differences may be due to the nature of the sports; trying too hard in golf may affect technique whereas preoccupation with significant others and lack of concentration may be more prevalent in younger sports people (14 year olds in Eubank and Collins study).

Coping effectiveness research has primarily focused on asking athletes to rate the effectiveness of their coping strategies without taking in to consideration any variables that may impact coping effectiveness (Nicholls, Levy, Grice and Polman, 2009c). For example Nicholls (2007) found that coping strategies among adolescent international golfers to manage certain stressors differed from day to day and even during the same competition highlighting the complexity surrounding coping effectiveness and perhaps the inadequacy of a coping effectiveness rating in explaining why certain coping strategies are effective. Hanton, Neil, Mellalieu, and Fletcher (2008) investigated the influence of skill level and competitive experience on coping responses and discovered that both variables had an impact on coping effectiveness. Elite performers exhibited more effective coping than past elite performers and highly experienced athletes reported more effective use of problem focussed coping strategies than less experienced athletes. The experiences of athletes and how they decipher coping strategies that are deemed effective in dealing with the stressful situations they encounter must be examined more closely if practitioners are to be able to give valuable advice to athletes on how to cope effectively (Hanton et al., 2008)

## **2.7 Rationale and purpose**

Based on the critique of previous research provided here, there were several purposes to this research study. The study aimed to discover the most common stressors among professional and amateur rugby union players, the coping strategies that were used to deal with these stressors, whether or not these coping strategies were deemed effective by the participants and why they were deemed effective or ineffective. If, for example, professional players used 'blocking' most frequently to cope with 'physical errors' but amateur players used 'positive self-talk' then this may have implications for rugby union coaches, players and sport psychologists with relation to the best strategy to use for certain stressors. Without the analysis of coping effectiveness, however, then in relation to the previous example it can only be an assumption that the professional athletes used the most effective coping strategies due to their professional status. The lack of research into actual coping effectiveness presents a gap in coping and stress research (Nicholls et

al., 2009c). Because of this, the current study also considers a participant's perceived coping effectiveness of coping strategies and *why* they perceive these strategies as effective or ineffective in attempt to further research.

# **METHODOLOGY**

### **3.1 Introduction**

This research study provides a qualitative analysis of stressors, coping and coping effectiveness of professional and amateur rugby union players. Qualitative analysis reveals complexity about phenomena and provides vivid descriptions, which are embedded in truth (Miles and Huberman, 1994). This study aimed to uncover intricate information regarding the stressors that rugby union players' experience and how they effectively cope with these stressors and a qualitative approach was considered appropriate. This section of the research paper gives insight into the method adopted, focusing on the justification of the sample, instrumentation, procedure, and data analysis.

### **3.2 Participants**

Participants were selected using the purposeful sampling technique. This type of sampling allows rich information to arise about the phenomenon of interest (Patton, 2002); which in this case was rugby union players. Whilst generalisation cannot occur from a very small sample, a great deal can be learned, and the opportunity for further research can likely be facilitated (Patton, 2002). In light of this, the current study used eight participants. Specifically, four amateur rugby union players were asked to volunteer, along with four professional rugby union players from a Championship division club. Throughout the study the two groups of participants are referred to as professional and amateur (Nicholls et al., 2006).

### **3.3 Instrumentation**

To collect data regarding stressors and coping strategies, participants were asked to fill in a diary detailing the stressors they experienced when involved in a competitive match. Nicholls et al. (2006) used a daily diary approach in order to maximise validity as recalling events from a long time ago can provide distorted results (Stone et al., 1998). Having completed the diaries participants took part in a semi-structured interview. The interview helped to clarify the stressors which the participants reported in the diaries and also helped explore the coping strategies that were used

to manage the stressors. Participants were also asked to rate the effectiveness of their coping strategies using a five point Likert-type scale (Kim and Duda, 2003; Nicholls et al., 2006) before being asked why they perceived these coping strategies to be effective or ineffective.

### **3.3.1 Interview Guide**

An interview guide was developed in order to confirm the demand in each experience that the participants deemed as stressful, explore the coping strategies that were used to deal with these demands, provide an effectiveness rating for each of these coping strategies and finally to gain an insight in to why these coping strategies were perceived to be effective or ineffective. The interview guide was split in to four different sections, an introduction, stressors, coping strategies and a conclusion. A semi structured interview format was chosen as it allows important themes to emerge that may not emerge from a more structured format (Gratton and Jones, 2010). Questions in the stressors section aimed to identify what the demand was for each situation that had been described in the diary, for example, “What was it that made this stressful for you?” Within the coping strategies section questions were designed to recognise the specifics of what each participant did to cope with a demand, for example, “How did you attempt to cope with this demand?” Within the coping strategies section participants were also asked how effective they perceived their attempt to cope with each demand to be and *why* they felt this attempt was effective or ineffective.

### **3.3.2 Pilot Studies**

Two pilot studies were conducted with amateur participants. One purpose of these interviews was to ensure that the interview questions were addressing the research aims and a second purpose was to provide the interviewer with an opportunity to practice and enhance his interview skills before conducting the interviews that were used for the study (Gratton and Jones, 2010). Following the first pilot interview a need for more specific information from the participant was identified; subsequently further probing questions were added. For example within the coping strategies

section the question “How did you attempt to cope with this demand?” was augmented with the probing question “Please be as specific as possible”. Patton (2002) suggested that probing questions allow an interviewer to investigate issues in greater depth. The introductory questions were also amended to provide a gentler opening to the interview. For example, the second introductory question was changed from, “Would you say that you experience high levels of stress during a rugby match?” to, “What are your experiences of high pressured matches?” with the added probe, “Describe one that was really stressful.” The second pilot interview confirmed that the interview questions were sufficient in obtaining the desired information from the participants.

### **3.4 Procedure**

To begin the study participants were issued with the diary and asked to fill in a page after each competitive performance following three consecutive matches. Each page of the diary included the task “Please list anything that happened during the match today that you deemed as stressful” and a space to record answers to this task. Once the three consecutive matches were completed each participant was interviewed separately. After discussing any stressors that the participant encountered and discovering which coping strategies were used to manage which stressors, participants were asked to rate the coping strategies they used. The Likert-type scale ranged from 1 to 5, 1 being not effective and 5 being very effective. Following their rating of coping strategies participants were asked the question “Why do you think this coping strategy was effective/ ineffective for you?” The reason for this question was to attempt to discover variables that may influence coping effectiveness, which is an area coping effectiveness research could benefit from (Nicholls et al., 2009c)

#### **3.4.1 Interview protocol**

Interviews were conducted face-to-face and recorded using a Dictaphone. Participants were reminded that they could stop the interview at any time and that

they did not have to answer every question. Participants were also reminded that any information that they provided would remain anonymous.

### **3.5 Data Analysis**

#### **3.5.1 Stressors**

Participants completed the task “please list anything that happened during the match today that you deemed as stressful” after three consecutive rugby matches. These stressful experiences were confirmed within each interview to provide the researcher with different ‘stressors’. Each interview was transcribed before data for professional and amateur participants were analysed separately. First order themes for the stressors were analysed from an inductive perspective. An inductive approach was used at this stage as it allows “important analysis dimensions to emerge from patterns found... without presupposing in advance what the important dimensions will be” (Patton, 2002, p. 56). For example any demand related to a team-mate making a mistake was assigned the first order theme ‘team-mate mistakes’. Once these first order themes were decided previous literature was reviewed so that the first order themes which had emerged could be placed into second order themes which already existed or into a unique theme which had not appeared in previous research. The majority of the second order themes that were decided upon were based on themes from Mellalieu et al.’s (2009) and Hanton et al.’s (2005) studies of stressors in the competition environment. Examples include competence, image (Mellalieu et al., 2009) injury and opponents (Hanton et al., 2005). This is a type of deductive analysis as data were analysed according to an existing framework (Patton, 2002). Once first and second order themes were established the frequency of each first order stressor was tallied for professional and amateur participants.

#### **3.5.2 Coping strategies**

Relevant responses were taken from the interviews and analysed inductively in order to provide first order coping themes. Any coping strategies that were the same or very similar were grouped under the same first order theme. For example any time

that a participant mentioned trying to block out or forget about specific thoughts, the first order coping theme assigned was 'blocking'. Following the grouping of first order themes, second order themes were decided via deductive analysis. This was done using Nicholls and Polman's (2007) second order coping themes which were formed in their study of stressors, coping and coping effectiveness of the England under 18 Rugby Union team. Similar to Nicholls et al. (2006), the second order coping themes were organised into the coping functions that they served. These coping functions were problem-focused coping, emotion-focused coping, avoidance coping and lack of coping. For example the first order coping theme 'blocking' was placed under the second order coping theme 'Cognitive Avoidance' (Nicholls and Polman, 2007) which served the coping function 'Avoidance Coping'.

### **3.5.3 Coping Effectiveness**

Participants provided a rating for each coping strategy using a Likert-type scale which ranged from 1 (not effective at all) to 5 (very effective) (Kim and Duda, 2003). A mean coping effectiveness score for each coping strategy was calculated by adding together all the effectiveness scores for each coping strategy and dividing by the number of times that coping strategy was used. This was done for professional and amateur participants separately. Mean coping effectiveness of each coping strategy in relation to the five most frequent stressors was calculated to show how effective each coping strategy was at managing the most frequent stressors.

### **3.5.4 Reasons for coping effectiveness**

To examine why coping strategies were deemed to be effective, participants were asked the question "Why do you think this coping strategy was effective/ ineffective for you?" Participants' responses were taken from the verbatim descriptions and incorporated to further the understanding of why coping strategies are deemed to be effective or ineffective (Neil, Hanton, Mellalieu and Fletcher, 2011).

### **3.6 Trustworthiness**

Lincoln and Guba (1985) suggested that trustworthiness is an important factor in ensuring the quality of the data obtained in a qualitative research study. Trustworthiness is embedded in the credibility of a study which relates to how believable the findings and interpretations of a study are (Gratton and Jones, 2010). Credibility within this study was ensured through member-checking. The researchers interpretations of the interview transcripts were sent out to each participant providing them with an opportunity to agree or disagree based on their recall of the interview. All participants agreed with the interpretations of the interview therefore validating the analyses of the data (Flick, 2009). The quality of the data obtained was also ensured by telling the participants that any information they provided would be kept anonymous, thus removing any outside influences on participant responses (Gratton and Jones, 2010)

# **CHAPTER FOUR: RESULTS**

## **4.1 Introduction**

This study explored the most common stressors among professional and amateur rugby union players during competition, the coping strategies used to deal with these stressors, perceived coping effectiveness and why coping strategies were perceived to be effective or ineffective. Results are split into five different parts: 1) Stressors; 2) Coping; 3) Coping effectiveness; 4) Stressors, coping and coping effectiveness; 5) Reasons for coping effectiveness scores. The first four sections include tables which provide frequencies of stressors, coping strategies and mean coping effectiveness ratings for professional and amateur participants. Throughout every section “thick descriptive” quotes are used to promote understanding and feelings of empathy from the reader (Mellalieu et al., 2009 p. 735).

## **4.2 Stressors**

A total of 48 stressors were reported by the participants, 24 from the professional participants and 24 from the amateur participants (see table 4.1 and table 4.2). The second order themes that emerged for the professional participants were competence, image, injury, opponents, preparation, referee, team-mates and skill execution. The second order themes for the amateur participants were the same excluding weather, skill execution and preparation and with the addition of performing to ability. For both professional and amateur participants there were five stressors that were reported more than once and by more than one participant.

**Table 4.1** Professional participant stressors

2nd order	1st order	Frequency	%
Competence	Team-mates, coaches and supporters evaluation of performance	3(3)	12.5
Image	Letting the team down	5(3)	20.8
Injury	Having to leave pitch due to injury	1	4.2
Opponents	Being physically fouled by an opponent	3(3)	12.5
	Performance potential of the opposition	2(2)	8.3
	Opposition scoring due to personal mistake	1	4.2
	Feeling that the game is lost	1	4.2
	Friends from opposition fighting with team-mates	1	4.2
Performing to ability	Not wanting to make a mistake	1	4.2
Referee	Referee making incorrect decision	1	4.2
Team-mates	Team-mates mistakes	4(3)	16.7
	Team-mates not focussed	1	4.2

**Table 4.2** Amateur participant stressors

2nd order	1st order	Frequency	%
Competence	Coaches evaluation of performance	4(2)	16.7
Image	Pressure to perform	2(2)	8.3
	Letting the team down	2(2)	8.3
Injury	Possibility of making an injury worse	1	4.2
Opponents	Performance potential of opposition	5(2)	20.8
	Being physically fouled by an opponent	1	4.2
	Feeling that the game is lost	1	4.2
Preparation	Inadequate time to prepare mentally	1	4.2
Referee	Referee making incorrect decision	1	4.2
Team-mates	Team-mate mistakes	3(2)	12.5
Skill Execution	Concerned about technique	1	4.2
	Not touching the ball	1	4.2
Weather	Weather limiting available lineout calls	1	4.2

### 4.2.1 Amateur participant stressors

For the amateur participants the most frequently cited stressors were 'letting the team down', 'team-mate mistakes', 'team-mates, coaches and supporters evaluation of performance', 'being physically fouled by an opponent' and 'performance potential of the opposition'. 'Letting the team down' accounted for 20.8 % of the stressors; a quote from participant A provided an example of this demand:

I felt like I'd made a big mistake and let the team down. They ended up kicking it in to our 22 and that stressed me out then because I thought 'right well they wouldn't have a chance of scoring a try from this rolling line out if I hadn't given away that silly penalty.'

'Team-mate mistakes' was the second most frequent stressor experienced by the amateur participants accounting for 16.7% of the total stressors experienced. Participant B expressed his frustration at a team-mate:

... it was a two on one where basically if I was passed to I would've easily scored a try... he didn't pass to me... It was just frustrating that it was just such a simple thing to do, but he went for the glory himself.

'Being physically fouled by an opponent' was cited three times (12.5%) and by three different participants. Participant B discussed the demand of being stamped on by the opposition, "It was just painful and then obviously it's the fact that these people are stamping on me... It gets you angry!" 'Team-mates, coaches and supporters evaluation of performance' was also cited as a demand on three separate occasions (12.5%) and by three different amateur players. Participant D expressed his concern about what others thought of his decision making:

... when you're in a decision making role and especially being the captain as well when there's a doubt coming from the side line that then feeds in to the players. And the players are quite easily influenced by what's going on around them. So really what I need them to do is just understand why I'm doing that... and the same with the crowd I don't need the crowd thinking that I'm doing something negative for the team when I'm not, I'm just trying to do something positive.

Cited twice (8.3%) and by two different participants was the 'performance potential of the opposition'. Participant D stated:

I was stressed that we were going to lose the penalty and they were then going to be awarded a penalty. They were in our red zone; they were 5 meters out from our try line so it would have been either 3 points or even 7 points.

#### **4.2.2 Professional participant stressors**

For the professional participants the five most frequently cited stressors were 'performance potential of opposition' (20.8%), 'coaches evaluation of performance' (16.7%), 'team-mate mistakes' (12.5%), 'pressure to perform' (8.3%) and 'letting the team down' (8.3%). 'Performance potential of the opposition' may have been the most frequently cited stressor among the professional participants, but it was only cited by two participants. Participant H discussed experiencing this type of demand on four occasions. The following quote is taken from one of these occasions, "... they still might be able to come back, score, draw, or even win the game. And the whole afternoon would have been pointless."

'Coaches evaluation of performance' was the second most frequently experienced stressor. Participant C described his concern about what his coach may think following a mistake:

I missed a simple tackle and just the fact that there were people watching that... my coaches were watching and I know I should have made that tackle... I thought I might not be picked for a cup game at the weekend or just the fact that my coach might drop me.

'Team-mate mistakes' were mentioned three times. Participant F articulated his frustration at a team-mates missed tackle:

The thirteen ran into our ten on a slice and he pretended he wanted to tackle sort of thing. He ran through and then the boys that were giving 100% had to cover... he didn't want to make that tackle, and that makes my job and everyone else's job harder and it puts the team on the back foot again.

Two different professional participants experienced 'pressure to perform'. Participant E described playing against an old team:

I used to play for \*\*\*\*\* so I had a point to prove. I needed to show them that I'm a good player. I didn't want them to think just because I've left that 'he's not that good of a player.' I wanted them to think 'he's left but we could have had him back he's actually a good player'.

'Letting the team down' was another stressor that was experienced by two professional participants. Participant E talked about missing a tackle, "I was also worried about letting my team-mates down. I don't want to let my team-mates down by missing a soft tackle and then them scoring a try that could maybe cost us the game."

### **4.3 Coping strategies**

Coping strategies were organised into first and second order themes before being categorized into coping functions using the headings of problem-focused, emotion-focused and avoidance in line with Nicholls et al. (2006), (see table 4.3 and table 4.4).

**Table 4.3** Professional participant coping strategies and mean coping effectiveness

Coping	General	1st order	Frequency	%	Effectiveness
PFC	Behavioural coping	Increased effort	3(2)	12.5	3.3
PFC		Tried to contribute to the game as soon as possible	2(2)	8.3	4
PFC		Adapted game	2(1)	8.3	4.5
PFC		Did something physical within the rules	2(1)	8.3	5
PFC		Carried on same way	1	4.2	5
PFC	Communication	Communicated with team-mates	5(2)	20.8	4.2
EFC	Positive attitude	Re-assured self	2(1)	8.3	4
EFC	Relaxation techniques	Visualised	2(2)	8.3	4.5
AC	Cognitive avoidance	Blocking	5(3)	20.8	2.6

**Table 4.4** Amateur participant coping strategies and mean coping effectiveness

Coping	General	1 <sup>st</sup> order	Frequency	%	Effectiveness
PFC	Behavioural coping	Did something physical within the rules	3(3)	12.5	3.3
PFC		Adapted game	1	4.2	5
PFC		Tried to calm other people down by pulling them away	1	4.2	4
PFC		Received medical attention as quickly as possible	1	4.2	5
PFC		Threw a punch	1	4.2	2
PFC	Communication	Communicated with team-mates	7(4)	29.2	2.9
PFC		Communicated with coach	1	4.2	4
PFC		Tried to persuade referee	1	4.2	5
EFC	Positive Attitude	Positive self-talk	4(3)	16.7	3.5
EFC		Re-assured self	1	4.2	5
EFC	Relaxation Techniques	Relaxation	1	4.2	5
AC	Cognitive Avoidance	Blocking	1	4.2	4
LC	No coping	Nothing	1	4.2	2

### **4.3.1 Professional participant coping strategies**

The most frequently cited first order coping themes for professional participants were 'blocking', 'communicated with team-mates' and 'increased effort' which accounted for 20.8%, 20.8% and 12.5 % of the coping strategies used respectively. 'Blocking' was used as a coping strategy by three of the professional participants and on five occasions. Participant H described his use of 'blocking' to cope with a 'team-mate mistake', "Umm try and forget about it as quickly as possible and move on... There's nothing you can do about it now so just get on with it."

'Communicating with team-mates' was used five times; twice to cope with 'team-mate mistakes' and three times to cope with the 'performance potential of the opposition'. Participant H communicated with his team-mates to cope with the stress he was experiencing due to the opposition having the advantage at the lineout ('performance potential of the opposition'):

I shouted at the players at the back and talked with our pack leader about perhaps swapping one of our players at the front to the back and trying to combat one of their strengths with one of our strengths.

'Increased effort' was used three times as a way of coping by professional participants; once to cope with 'feeling that the game was lost' and twice to cope with the 'performance potential of the opposition'. Participant E increased his effort to cope with the pressure being exerted by the opposition, "... my effort definitely increased. Being close to the line I knew I needed to make a tackle otherwise they would score."

### **4.3.2 Amateur participant coping strategies**

The most frequently used coping strategies by the amateur participants were 'communicated with team-mates' (29.2%), 'positive self-talk' (16.7%) and 'did something physical within the rules' (12.5%). 'Communicating with team-mates' was the coping strategy used to deal with almost a third of the stressors experienced by amateur participants. It was used most commonly to deal with 'team-mate mistakes'. Participant A communicated with a team-mate who was adopting the incorrect body

position, "I tried to get him to go in to the maul a lot quicker and be lower and just kept screaming at him."

'Positive self-talk' was used four times and by three different amateur participants. It was used to cope with 'letting the team down', 'team-mates, coaches and supporters evaluation of performance' and 'feeling that the game is lost'. Participant D used 'positive self-talk' to cope with 'letting the team down':

... trying to say to myself all the positive things that I've done in the game so far... so thinking of any tackles I've made or any positive passes I've made or things like that. So trying to convince myself again that I'm still on top... I've got to get myself back to a positive state ready to do the next thing.

'Did something physical within the rules' was referred to three times by three different amateur participants and each time it was used to cope with 'being physically fouled by an opponent'. Participant G was punched by an opposition player:

So if I sort of step up my game now and make a real big impact with my next carry of the ball or make a good play then I can use that optimum arousal level to make a positive impact... I was keen to get on the ball and make a big hit or something like that within the law of the game and keep me at that sort of optimum arousal level.

### **4.3.3 Coping functions**

Problem focussed coping strategies were the most frequent coping function used for both professional and amateur participants. 66.7% of the coping strategies used by amateur participants were problem-focussed compared to 62.5% among professional participants. Emotion focussed coping strategies equated to 25% of the coping strategies used by amateur participants and 16.7% for the professional participants. Avoidance coping strategies were used once by amateur participants (4.2%) and five times by professional participants (20.8%). One amateur participant stated that they did nothing to cope with one of the stressors. The coping function used to categorise doing nothing was lack of coping (Nicholls et al., 2006).

## **4.4 Coping effectiveness**

During the interview participants were asked to rate how effective they perceived their attempt to cope with each demand to be. Each coping strategy was given a rating from 1 (not effective at all) to 5 (very effective) (Kim and Duda, 2003; Nicholls et al., 2006).

### **4.4.1 Amateur participant coping effectiveness**

For amateur participants there were five coping strategies that were used once and scored 5 out of 5 on the coping effectiveness scale ('adapted game', 'received medical attention as quickly as possible', 'tried to persuade referee', 're-assured self' and 'relaxation'). Three coping strategies were used more than once and by more than one participant. For these three coping strategies the mean coping effectiveness scores were: positive self-talk – 3.5, did something physical within the rules - 3.3 and communicating with team-mates – 2.9.

### **4.4.2 Professional participant coping effectiveness**

For the professional participants there were two strategies that were used by one participant and had a mean effectiveness score of 5 ('did something physical within the rules' and 'carried on the same way'). Five coping strategies were used by more than one participant and the mean coping effectiveness scores were as follows: Visualised – 4.5, tried to contribute to the game as soon as possible – 4, communicated with team-mates – 4.2, increased effort – 3.3 and blocking – 2.6. For both professional and amateur participants the most frequently cited coping strategies were not the most effective. Overall mean coping effectiveness for amateur participants is 3.9 and for professional participants is 4.1.

## **4.5 Stressors, coping and coping effectiveness**

### **4.5.1 Amateur participant stressors, coping and coping effectiveness**

For the two most frequently cited stressors among amateur participants ('letting the team down' and 'team-mate mistakes') five different coping strategies were used (see table 4.6). Four of these strategies were used to deal with 'letting the team down' the most effective being 'relaxation' (5) and the least effective being 'nothing' (2). 'Positive self-talk' was the only strategy to be used more than once to deal with 'letting the team down' and had a mean effectiveness score of 3.5. For 'team-mate mistakes' 'communicating with team-mates' was used four times and had a mean effectiveness score of 2.8.

### **4.5.2 Professional participant stressors coping and coping effectiveness**

Professional participants cited five different coping strategies to deal with the two most frequent stressors – 'performance potential of the opposition' and 'coaches evaluation of performance' (see table 4.5). For 'performance potential of the opposition' 'communicated with team-mates' was used three times by one participant and had a mean coping effectiveness score of 4.3. 'Increased effort' was cited by two participants and had a mean effectiveness score of 3. The mean effectiveness scores for the coping strategies used to deal with 'coaches evaluation of performance' are as follows: Visualised – 5, tried to contribute to the game as soon as possible – 3 and blocking 1.5 (each of these coping strategies were used by one participant).

**Table 4.5** Professional participant coping strategies, frequencies and coping effectiveness in managing the most frequent stressors.

Stressor	Coping	Frequency	Effectiveness
Performance potential of opposition	Communicated with team-mates	3(1)	4.3
	Increased effort	2(2)	3
Coaches evaluation of performance	Blocking	2(1)	1.5
	Visualised	1	5
	Tried to contribute to the game as soon as possible	1	3
Team-mate mistakes	Communicated with team-mates	2(2)	4
	Blocking	1	2
Pressure to perform	Did something physical within the rules	1	5
	Re-assured self	1	4
Letting the team down	Tried to contribute to the game as soon as possible	1	5
	Re-assured self	1	4

**Table 4.6** Amateur participant coping strategies, frequency and coping effectiveness in managing the most frequent stressors

Stressor	Coping	Frequency	Effectiveness
Letting the team down	Positive self-talk	2(2)	3.5
	Blocking	1	4
	Relaxed	1	5
	Nothing	1	2
Team-mates mistakes	Communicated with team-mates	4(3)	2.8
Perception of team-mates, coaches and supporters	Positive self-talk	1	3
	Communicated with coach	1	4
	Communicated with team-mates	1	3
Being physically fouled by an opponent	Did something physical within the rules	3(3)	3.3
Performance potential of opposition	Communicated with team-mates	1	2
	Tried to persuade referee	1	5

## **4.6 Reasons for coping effectiveness scores**

Participants were not only asked to rate the effectiveness of their coping strategies they were also asked to provide a reason why they perceived their attempt to cope as effective or ineffective.

### **4.6.1 Amateur participant reasons for coping effectiveness scores**

'Communicated with team-mates' was the most frequently used coping strategy for amateur participants with a mean coping effectiveness score of 2.9. Only two coping strategies for amateur participants received a lower mean coping effectiveness score than this ('Nothing' and 'threw a punch'). Participant B rated 'communicated with team-mates' 2 out of 5 at coping with a 'team-mate mistake' providing the following reason, "... the team don't listen to any of the players really when you're shouting at them and you know so nothing really gets through to them."

'Positive self-talk' was the second most used coping strategy and had a mean coping effectiveness score of 3.5. Participant D rated 'positive self-talk' as 4 for coping with 'feeling that the game is lost':

Because it's almost like tricking myself in to thinking something, I'm looking for something positive. It almost gives me that little bit of control back. I feel like I can still affect it or I can still do something about it.

'Did something physical within the rules' had a mean coping effectiveness score of 3.3. Participant B rated this coping strategy as 5 out of 5 for coping with 'being physically fouled by an opponent' whereas Participant A rated it 1 out of 5 for coping with the same stressor. Participant B supported his effectiveness score with the following quote, "It's just a good release isn't it? Yeah just to get some of the anger out of you." Participant A provided the following explanation:

Obviously in rugby you can be up for it however this was just way over the edge and if I'd have carried on like that for the whole game I think I'd have probably made a lot of mistakes... it doesn't help to have that lack of control and not being able to control your emotions definitely doesn't help in any way.

#### **4.6.2 Professional participant reasons for coping effectiveness scores**

'Blocking' was the equally most frequently used coping strategy along with 'communicated with team-mates' and had a mean coping effectiveness score of 2.6 making it the least effective coping strategy. Participant F used 'blocking' to cope with 'potential to make an injury worse' scoring it 3 out of 5, "I was still thinking about it in stoppages of play and when I was running at full pace it was stopping me..."

'Communicated with team-mates' had a mean coping effectiveness score of 4.2. Participant H rated this coping strategy 5 with regard to coping with 'performance potential of the opposition' suggesting it allowed him to gain some control, "I was doing it myself rather than letting others take control of the situation. I was trying to take control myself."

'Increased effort' had the second highest mean coping effectiveness score of the three most frequently used coping strategies by the professional participants (3.3). Participant E described why he perceived 'increased effort' to be an effective coping strategy having rated it 4 out of 5, "Just because it helped me re-focus on the game."

#### **4.6.3 Reasons for effectiveness scores in dealing with the most common stressors**

'Communicated with team-mates' was the most commonly used coping strategy to manage 'team-mate mistakes' for both groups of participants. The mean coping effectiveness score in using this coping strategy to manage this stressor was 4 for the professional participants as opposed to 2.8 for the amateur participants. Participant H (professional) provided an effectiveness score of 5 stating:

I mentioned it to the other players to get the other player on, but also I was talking it through when we had stoppages of play, penalties and line-outs. I talked through with \*\*\*\*\* about where he wanted me and what he wanted me to do. It made me rehearse and think about what I needed to do before each scrum.

Participant G's (amateur) rating was 1 and was justified in the following explanation:

First of all I shouted and screamed at \*\*\*\*\* in frustration. I suppose that would have been my coping strategy... It was probably a one... Because it causes tension within your team-mates. It can probably knock his confidence a little bit, probably takes my concentration off my own jobs within the game. So I think that it was a poor coping strategy for a stressful situation.

'Communicated with team-mates' was also used by both professional and amateur participants to manage 'performance potential of the opposition'. The mean coping effectiveness score for the amateur participants was 2 compared with 4.3 for the professional participants. Participant B (amateur) gave an effectiveness score of 2 stating, "Initially I was just trying to pick everyone else up just sort of saying you know bad luck guys... but no one was really up for it and I remember I still felt horrible after the game". Participant H (professional) advocated "I'll go for a five this time... it made me less stressed... just communicating ideas and talking to others so that we didn't worry about it after the game".

'Letting the team down' was the only other stressor which appeared in the five most frequently experienced stressors for both groups of participants. A range of different coping strategies were used. Participant A (amateur) rated 'blocking' 4 his reason being, "it just sort of cleared your mind of those sort of negative doubts and negative experiences". Participant E (professional) rated "tried to contribute to the game as soon as possible" 5 and suggested 'I didn't dwell on it at all I just moved straight on to the next job".

# **CHAPTER FIVE: DISCUSSION**

## **5.1 Introduction**

The final chapter outlines the main findings of the study with comparisons made to the previous research that has focused on stressors, coping and coping effectiveness. The findings then inform the applied implications provided for sports people, sport coaches and sport psychologists. Finally, the strengths and limitations of the study are analysed, leading to the directions for future research into this area, and a conclusion of the study.

## **5.2 Contribution to knowledge**

The overall purpose of this study was to discover the effectiveness of coping strategies used by professional and amateur rugby union players to deal with stressors experienced during performance, and to discover why identified strategies are perceived to be effective or ineffective. The rationale behind obtaining this information was to discover if there were differences between the professional and amateur participants with regard to the most effective coping strategy to use for each particular stressor. This may then have implications for sports coaches and psychologists as to which coping strategies to teach. Also an attempt was made to further research in to coping effectiveness by analysing why each coping strategy was perceived to be effective or ineffective to discover any variables that affect coping effectiveness.

The main findings of this study show that professional and amateur rugby union players experience very similar stressors during performance. With regard to coping with these stressors, similar strategies were adopted, with professional participants using slightly more avoidance coping strategies. In terms of coping effectiveness, professional participants reported the use of strategies to be generally more effective at managing the identified stressors. Indeed, professional and amateur participants adopted similar coping strategies to deal with similar stressors, but the professional participants viewed such usage as more effective. Through analysing the reasons why participants perceived their attempts to cope to be effective the findings suggest that it is the quality of the coping strategy and not just the selection of the correct coping strategy that may influence coping effectiveness.

To elaborate, when both groups of participants used the same coping strategy to deal with the same stressor, the professional participants were still more effective in their perceived attempts to cope. When asked why, it seemed that the professional participants were more efficient in their implementation of the coping strategy than their amateur counterparts. These findings have practical implications to coaches and sport psychologists as they must consider providing athletes with support on how to effectively use *quality* coping strategies instead of just how to effectively decide which coping strategy to use.

### **5.3 Stressors**

Almost all of the stressors identified by the participants were performance based stressors. This is supported by other research that has investigated the stressors encountered by sport performers within the competition environment. For example, Mellalieu et al.'s (2009) study found that elite and non-elite participants experienced a similar amount of performance and organisational stressors, with the performance stressors being more frequently reported than those emanating from organisational sources. The reason for the similar finding is likely due to the similar time periods that were explored. For example, the current study looked at stressors during competition and Mellalieu et al (2009) looked at an hour before competition. Research with contrasting results such as Hanton et al. (2005) put no time frame on the stressful experiences that were being examined and, consequently, discovered that athletes experience more organisation stressors than performance stressors.

The current study identified 'letting the team down', 'team mate mistakes', 'being physically fouled by an opponent', 'team mates, coaches and supporters evaluation of performance' and 'performance potential of the opposition' as the most common stressors for the amateur participants and 'performance potential of the opposition', 'coaches evaluation of performance', 'team mate mistakes', 'pressure to perform' and 'letting the team down' as the most common stressors for the professional participants. These findings support those of Mellalieu et al.'s (2009) who showed that elite and non-elite participants experience similar types of stressors. However, although both groups of participants experienced 'letting the team down' the frequency that this stressor was mentioned was less among the

professional participants, supporting Nicholls, Polman, Levy, Taylor and Copley's (2007) finding that elite participants are less concerned with letting team mates down. Also similar to the results of Nicholls et al. (2007), there were a greater number of coach related stressors reported by professional athletes. This may be explained by the fact that the professional participants in this study were young players at an important stage of their career. Indeed, Nicholls and Polman (2007) found that England under 18 players who were close to finding out whether or not they would obtain professional contracts experienced many stressors related to criticism from a coach. This perhaps correlates to the professional players in the current study who were hoping to achieve a place on their respective teams' first team squad.

Some of the most common stressors that have been identified in previous research into the stressors experienced by rugby union players include physical error, mental error, injury and coach criticism (see for example, Nicholls and Polman, 2007; Nicholls et al., 2006; Nicholls et al., 2009b). The absence of physical and mental error in the list of most common stressors in the current study is likely due to the way in which stressors were classified. That is, mental and physical errors could have been accounted for within a certain stressor such as 'letting the team down'. To illustrate, Participant A stated, 'I felt like I'd made a big mistake and let the team down.' Although making a physical error is involved in this instance, experiences such as this and others similar were deemed to be more closely linked to the stressor 'not wanting to let team mates down' which came under the theme 'image' in Mellalieu et al' (2009) study. Another possible reason for the differences is that Nicholls et al. (2006) used a stressor checklist with pre-determined categories, which although a space for other stressors was provided, an individual may have felt prompted to tick a box if it had some similarity to their stressful experience. Patton (2002) suggests that these types of "prescriptive methods" are a limitation which is inherent in quantitative research as a whole, suggesting that more accurate responses are derived from approaches that allow the participants to think and respond freely. This contributed to the decision to classify stressors under themes from Mellalieu et al. (2009) due to the more thorough examination of participants' stressful experiences.

Injury was identified as a stressor only on two occasions, once by each group of participants. Such findings differ to those of previous research that acknowledged injury as a frequently identified demand. A possible explanation for its lower frequency in comparison to other research was again the time frames adopted in each study. To explain, previous research designs have involved participants providing information on a daily basis whereas the current study only looked at stressors during performance (Nicholls and Polman, 2007; Nicholls et al 2006). Thoughts about injury may be less frequent in the heat of competition and, therefore, less likely to be recalled by participants. Participant F who was carrying an injury provides support for this:

In the game it just didn't come in to my head at all unless I was chasing a kick off or making a break and I'm running flat out. So that's the only time. I wouldn't say it affected me at all really just now and again just getting somewhere half a second quicker.

Stressors related to the opposition were frequent among both sets of participants which is synonymous with previous stress research (e.g., Mellalieu et al 2009; Nicholls and Polman, 2007; Nicholls et al, 2005b). There were stressors across both groups of participants, however, that did seem to be unique to the situation. For example, 'friends on opposition fighting with team mates' were reported from an amateur participant and 'not touching the ball' from a professional participant. This presents the indication that practitioners ought to be aware of the unique demands that a performer may face and that it should not be accepted that the same stressors will occur at a certain level of competition (Mellalieu et al., 2009) or indeed across all different playing positions (James, Mellalieu and Jones, 2005) as was identified by Participant E:

... if I can get that aggressive every week then I can hopefully play well each week. And as 7 I can have a lot more contact than maybe a winger or a scrum half so if I can be that aggressive then it's definitely going to help me. A winger or scrum half would need to be the complete opposite.

## 5.4 Coping Strategies

Professional and amateur participants used a similar amount of problem and emotion-focussed coping strategies and, similar to Nicholls et al. (2007), professional athletes used the avoidance coping strategy 'blocking' more frequently. All coping strategies in the current study were categorised into second order themes from Nicholls and Polman's (2007) study (apart from one where a participant's coping strategy was 'nothing'). Six second order themes were used in total as opposed to 13 in Nicholls and Polman's study. This difference can potentially be explained by the quantity of information collected in this study. That is, information was only collected on the day of the competition rather than daily for 31 days (as in Nicholls and Polman's study).

The most frequently used coping strategies by amateur participants were 'communicated with team mates', 'positive self-talk' and 'did something physical within the rules'. Strategies related to communication and positive self-talk are commonly used in previous coping research (Nicholls et al., 2009b, Nicholls et al. 2005a). The professional participants also used 'communicated with team mates' frequently, however their other commonly used strategies matched more closely with research that has looked specifically at professional or elite rugby union players, for example, 'blocking' and 'increased effort' (Nicholls and Polman 2007; Nicholls et al., 2006). Without an analysis of coping effectiveness it may have been concluded from an applied perspective that amateur players should continue to use 'communicated with team mates' but try to also use 'blocking' and 'increased effort' more frequently considering these are the coping strategies that the professional players used. Indeed, perhaps even more so seeing as they experienced similar stressors. However, the Likert-Type scale used to measure coping effectiveness (Kim and Duda, 2003) revealed that blocking had a mean coping effectiveness score of 2.6 out of 5 for professional participants and was therefore not necessarily an effective strategy to use.

## 5.5 Coping Effectiveness

Several coping strategies had a mean coping effectiveness score of 5 out of 5 for effectiveness (e.g., 'carried on same way' and 'tried to persuade referee'), yet all of these coping strategies were only cited once or by the same participant. It would be misleading then to encourage athletes to use these coping strategies as further observations would have to be made to ensure that these strategies are in fact effective (Nicholls et al, 2006). Overall, professional participants reported their coping to be more effective at dealing with the most common stressors than the amateur participants. This supports the findings of previous research which postulate that skill level is a variable that affects coping effectiveness (Nicholls et al, 2007). For example, the mean coping effectiveness score for the professional participants at coping with 'letting the team down' was 4.5 as opposed to 3.6 for the amateur participants. One amateur participant did 'nothing' to cope with this stressor scoring it 2 on the scale, whereas professional participants used the coping strategies 'tried to contribute to the game as soon as possible' and 're-assured self' providing scores of 5 and 4 respectively. This is perhaps an example of where professional participants have greater coping resources.

Another important finding related to the quality of coping usage was that when professional and amateur participants used the same coping strategies to deal with the same stressor, professional participants were still more effective. Both groups of participants used 'communicated with team mates' to deal with 'team mate mistakes' but the professional participants produced a mean effectiveness score of 4 in comparison to 2.8 among the amateur participants. This perhaps supports Nicholls (2007) finding that choice of coping strategy does not adequately explain how to ensure coping effectiveness. Indeed, Hanton et al. (2008) argued that critical examination of an athlete's experience is necessary in order to understand how an athlete effectively deals with a stressor. This prompted the current study to analyse a participant's reasons for coping effectiveness.

## 5.6 Reasons for coping effectiveness

Upon analysing participants' reasons for coping effectiveness it became evident that coping effectiveness may be related to the quality of the use of a coping strategy and not just adopting the correct coping strategy. Regarding the previous example a professional participant (Participant G) suggested that 'communicated with team mates' was an effective coping strategy for managing 'team mate mistakes':

I mentioned it to the other players to get the other player on, but also I was talking it through when we had stoppages of play, penalties and line-outs. I talked through with \*\*\*\*\* about where he wanted me and what he wanted me to do. It made me rehearse and think about what I needed to do before each scrum.

Conversely, Participant F (amateur) suggested why the same coping strategy to cope with the same stressor was ineffective:

First of all I shouted and screamed at \*\*\*\*\* in frustration. I suppose that would have been my coping strategy... It was probably a one... Because it causes tension within your team-mates. It can probably knock his confidence a little bit, probably takes my concentration off my own jobs within the game. So I think that it was a poor coping strategy for a stressful situation

From this example it is apparent that the way in which the two participants employed the coping strategy was different, therefore it could be assumed that the quality of a coping strategy is an influential factor and not necessarily just choice of coping strategy. Further research in to athlete's experiences of effective coping is necessary support this assumption.

## 5.7 Practical Implications

From an applied perspective the findings of this study provide a number of implications. First, similar to Mellalieu et al. (2009), the current findings suggest a need for practitioners to effectively prepare performers for the various types of demands that are faced within the competition environment. In order to deal with these demands rugby union players must have the correct coping resources.

Practitioners should provide information regarding which stressors that players are likely to experience during performance and the coping strategies that are likely to be most effective at dealing with each of these individual stressors (Thomas et al., 2009). The support for players should not stop here; advice should also be given on how to successfully implement the chosen coping strategy. For example, the findings from the current study would suggest that when a player communicates with their team mates to relieve their own stress related to a team mate mistake, they should do so in a positive way if they are to perceive their attempt to cope as effective. Therefore guidance on how to communicate positively may enhance a player's coping attempt. Recent research into the effects of using Cognitive Behavioural Interventions on golfers (Neil, Hanton and Meallieu, 2013) involved educating participants and giving them an opportunity to practice strategies before implementing them. The golfers experienced an improvement in performance. It is likely then that if rugby union players are provided with specific guidance on how to cope effectively and given an opportunity to practice these skills then they will exhibit improved performance.

### **5.8 Strengths, limitations and future research directions**

One strength of the current study was the qualitative approach that was adopted. The method allowed for in depth information to arise concerning athletes' thoughts, feelings and experiences (Gratton and Jones, 2010). However, the nature of the study meant that collecting data was time-consuming. Therefore, as opposed to quantitative research where many participants are often used, only eight participants took part. This brings to question if generalisations can be made from these findings. Future research might consider including more participants or employing a more mixed method approach to glean more information (Johnson and Onwuegbuzie, 2004).

The use of diaries and interviews was another strength of the research study. Specifically, the diaries reduced the time between the participants' stressful experiences and the recall of those experiences. This is a strength as retrospective recall can lead to distorted results, which may be considered invalid (Stone et al., 1998). However, it must be taken into consideration that some of the participants

were interviewed a couple of weeks after their last competitive performance. Although they had information within the diaries to aid their memory relating to the stressful experiences they encountered, there was no section in the diary to record how they coped with these experiences. The validity of the participants' coping responses could, therefore, be queried. Future research should contemplate increasing the amount of information to be recorded within the diary and include coping responses sections similar to previous research (i.e., Nicholls et al., 2005b; Nicholls et al., 2006).

A further strength of the study was the decision not only to measure coping effectiveness but to also attempt to analyse why certain coping strategies were considered effective or ineffective. Hanton et al. (2008) suggested that it is necessary to critically analyse the experience of elite athletes and what influences the development of appropriate coping strategies to effectively deal with stressful situations. The findings of this study supported this by emphasising that it is not just the adoption of a coping strategy that is important, but the quality of its usage. Nevertheless, the current study's attempt to obtain explanations arose from only one interview question within the interview guide, "Why do you think this coping strategy was effective/ ineffective for you?" For richer information to be obtained analysis must be more complex in order to highlight the variables affecting coping effectiveness in greater depth. Specifically, researchers might ask players to discuss times where they coped effectively and ineffectively with the same stressor on different occasions despite employing the same coping strategy. This may help to discover what influences coping effectiveness.

After examining coping responses in relation to specific stressors, which was a suggested research avenue by Nicholls et al. (2007), the findings of the study provide encouragement for future researchers to examine not only how an effective coping strategy is selected for a particular stressful situation but also how the quality of the implementation of that coping strategy can impact coping effectiveness. Consequently, future research may wish to examine ways in which coping strategies are developed within rugby union performers towards their effective use in competition.

A further limitation of the current study was the absence of an examination of the stressors which athletes face outside of the performance environment. There is an abundant amount of research which suggests that athletes experience many stressors which are not directly pertinent to performance (Hanton et al., 2005; Woodman and Hardy, 2001; Gould, Jackson, and Finch, 1993). It might be useful for further research to focus on other categories such as how athletes cope with organisational and personal stressors (Nicholls et al, 2007).

## **5.10 Conclusion**

The primary purpose of this investigation was to discover the most common stressors experienced by professional and amateur rugby union players during performance, which coping strategies were used to manage these stressors, how effective participants believed themselves to be in coping with these stressors and why they believed coping strategies to be effective or ineffective. The findings showed that professional and amateur rugby union players experience similar stressors during performance and also employ many of the same coping strategies, though professional participants use slightly more avoidance strategies. With regard to coping effectiveness professional participants reported, on average, the use of more effective coping strategies to deal with the most common stressors. The most important finding to be taken from this study was that when both groups of participants employed the same coping strategy to deal with the same stressor, the professional participants were still more effective suggesting that ensuring coping effectiveness may be more complex than just selecting what is considered to be the correct coping strategy to deal with a certain stressor. Through analysing participants reasons for coping effectiveness results pointed to the quality of the implementation of a coping strategy as a possible affecting factor regarding coping effectiveness. From an applied perspective this study has proposed that practitioners must consider information regarding which coping strategy is most likely to be effective in relation to each stressor but also how to develop effective use of that coping strategy when planning interventions. Future research should aim to understand in greater depth the variables that impact coping effectiveness.

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# **APPENDICES**

**APPENDIX A**

**EXAMPLE PARTICIPANT  
INFORMATION SHEET**

## **Participant Information Sheet**

### **Project title**

Stressors, coping and coping effectiveness among professional and amateur rugby union players during competition.

### **Invitation**

You are being asked to take part in a research study relating to stress and coping among rugby union players.

### **Research Aim**

The aim of the research project is to discover which stressors professional and amateur rugby union players face, the coping strategies they employ to deal with these stressors, how effective they feel these coping strategies are and lastly why they feel these strategies are effective or ineffective.

### **Procedure**

8 participants (4 professional and 4 amateur rugby union players) will be asked to fill in a diary after 3 consecutive performances. The diary consists of the question "In the space provided please list anything that you deemed as stressful during the match today." and a space to record the answers to this task. A semi-structured interview will take place after the 3 performances to discuss the stressors experienced further and to identify coping strategies that were used to deal with the stressors. During the interview participants will be asked to rate the effectiveness of each coping strategy using a 5-point Likert-type scale with 1 being not effective and 5 being very effective. Lastly participants will be asked why they felt coping strategies were effective/ ineffective.

### **What happens to the results?**

The results will be analysed and included in the research paper which will be presented to Cardiff Metropolitan University in the form of an undergraduate dissertation.

### **Risks**

The participation in this study will not cause any physical risks that do not exist in everyday life. Potential psychological risks include psychological harm due to the discussion of topics that may be perceived as sensitive, maintenance of confidentiality and the discomfort of personal information.

### **Participants Rights**

Participants may decide to remove themselves from the research study at any time without explanation. They are also entitled to ask that any data that is supplied will be removed and disposed of. The participants also have the right to ask the researcher any questions they have about the research study.

### **Confidentiality/Anonymity**

In order to protect the privacy of the participants no names will be used in the research paper and any personal information (e.g. name, address, email etc...) will not be kept once the research study is complete.

### **Informed Consent**

If you agree to participate in this study you will need to complete an informed consent form. This will ask you to confirm your willingness to take part.

### **Further Information**

If you have any questions or require any further information please do not hesitate to get in contact.

### **George Towers**

**Telephone:** 07969631694

**Email:** st20001817@outlook.cardiffmet.ac.uk

**APPENDIX B**

**EXAMPLE INFORMED CONSENT  
FORM**

# INFORMED CONSENT FORM

**Title of project:** Stressors, coping and coping effectiveness among professional and amateur rugby union players during competition.

**Name of researcher:** George Towers

Participant to complete this section (please tick the boxes):

1. I confirm that I have read and understand the information sheet for this research study. I have had the opportunity to ask questions regarding the study and have had these questions answered satisfactorily.
2. I understand that participating in this study is entirely voluntary and that I can withdraw at any time without giving a reason.
3. I understand that information that I provide will be used within the study but my identity will remain anonymous.
4. I am happy to participate in this research study.

Name of participant .....

Date .....

Signature of participant .....

Name of person taking consent .....

Date .....

Signature of person taking consent .....

**APPENDIX C**

**EXAMPLE INTERVIEW GUIDE**

## Interview Guide

**Name:**

**Age:**

**Standard (professional/ amateur):**

**Position:**

**Interview date:**

Before we begin I would like to thank you for participating in the study.

As you are aware the study is about stress and coping in Rugby Union. More specifically the purpose of the study is to discover the most common stressors among professional and amateur rugby union players during competition, the coping strategies that are used to deal with these stressors, whether or not these coping strategies are deemed effective by the participant and lastly why they are deemed effective/ineffective. The findings from this study will be presented to Cardiff Metropolitan University in the form of an undergraduate dissertation.

I will be asking questions related to the stressors that you identified in the diary in an attempt to discover how you coped with these stressors. You will be asked to rate the effectiveness of your coping strategies and discuss why you found them effective or ineffective. The interview will be recorded using a Dictaphone. I remind you that you may stop the interview at any time as your participation in the study is entirely voluntary. The information that you provide will be kept confidential and once the investigation has finished it will be deleted. You do not have to answer every question and if you are unsure of an answer I ask that you do not try to guess or provide an answer you think I want to hear, instead please decline to comment and I will move on to the next question.

Do you have any questions before we start? Ok, feel free to ask any questions as we go along.

### Introductory Questions

1. Firstly please talk to me about your rugby career.
  - a. What are some of your highest achievements?

2. What are your experiences of high pressured matches?
3. Describe one that was really stressful.
4. How do you normally cope in high pressured matches?

### **Stressors**

Now I will move on to discussing the stressful experiences that you identified in the diary.

5. You identified \_\_\_\_\_ as being stressful during one of the games. What was it that made this stressful for you?
  - a. How did you feel?

### **Coping and coping effectiveness**

6. How did you attempt to cope with this stress?
  - a. Please be as specific as possible.
7. What was the intended outcome of your attempt to cope?
8. Did your attempt to cope help to get you to that outcome?
9. How effective was your attempt to cope with this stress on a scale of 1 – 5; 1 being ineffective and 5 being very effective?
10. Why do you think this coping strategy was effective/ ineffective for you?
  - a. Would you elaborate on this?

11. Repeat questions 5 – 10 drawing on stressors identified by the participant in the diary.

12. Are there any stressful experiences that you feel you regularly experience when performing that you did not state in the diary? Talk to me about these experiences.

13. What do you do to cope with these stressful experiences?

a. Please be as specific as possible.

### **Conclusion**

Ok, we have talked about stressors, coping strategies and coping effectiveness.

14. Is there anything else you want to include regarding these areas?

15. How do you feel the interview went?

16. Do you feel you were able to get across your experiences fully?

17. Did you feel that the questions were leading in any way?

18. Are there any other comments or questions that you have?

Thank you for participating in this study.

**APPENDIX D**

**ETHICAL APPROVAL**



Date: 01/10/2013

To: George Towers

Project reference number: 13/05/373U

Your project was recommended for approval by myself as supervisor and formally approved at the Cardiff School of Sport Research Ethics Committee meeting during the 2013/14 Academic Year.

Yours sincerely

Dr. Rich Neil

A handwritten signature in black ink, appearing to read 'Rich Neil'.

Supervisor

**APPENDIX E**

**EXAMPLE TRANSCRIPTION**

## PARTICIPANT D TRANSCRIPTION

**Name:**

**Age:**

**Standard (professional/ amateur):**

**Position:**

**Interview date:**

GT: Before we begin I would like to thank you for participating in the study.

As you are aware the study is about stress and coping in Rugby Union. More specifically the purpose of the study is to discover the most common stressors among professional and amateur rugby union players during competition, the coping strategies that are used to deal with these stressors, whether or not these coping strategies are deemed effective by the participant and lastly why they are deemed effective/ineffective. The findings from this study will be presented to Cardiff Metropolitan University in the form of an undergraduate dissertation.

I will be asking questions related to the stressors that you identified in the diary in an attempt to discover how you coped with these stressors. You will be asked to rate the effectiveness of your coping strategies and discuss why you found them effective or ineffective. The interview will be recorded using a Dictaphone. I remind you that you may stop the interview at any time as your participation in the study is entirely voluntary. The information that you provide will be kept confidential and once the investigation has finished it will be deleted. You do not have to answer every question and if you are unsure of an answer I ask that you do not try to guess or provide an answer you think I want to hear, instead please decline to comment and I will move on to the next question.

Do you have any questions before we start? Ok, feel free to ask any questions as we go along.

Firstly please talk to me about your rugby career.

TT: Um so I've been playing since I was um under 11s maybe under 10s. Started out in kind of mini rugby at \*\*\*\*\* RFC um and then played rugby for \*\*\*\*\* RFC alongside playing football as well umm when I was at \*\*\*\*\* school. So that was from about 11 to 16. Then I went into A -levels and I carried on playing some colts rugby at \*\*\*\*\* RFC but I also played in the first team when I turned 17 so I was playing senior rugby from 17 at \*\*\*\*\*. I then went... when I finished my A-Levels I went to \*\*\*\* so um I was there for three years. In my first year there I was playing for the under 21 side and was playing still for \*\*\*\*\* RFC so still playing senior rugby as well. I played a few games for the second team at UWIC while I was there um and then decided to carry on playing for \*\*\*\*\*. From \*\*\*\*\* in 2006 I signed for \*\*\*\*\* um which at the time where semi-professional club playing National 2 South. So I played there for 2 and a half seasons and then I re-joined \*\*\*\*\* RFC. Um in terms of um honours I played umm probably the last 10 seasons for Somerset senior side. Um and played in both the National Plate final and the National Vase final for Somerset um and I'm currently playing as first team captain at \*\*\*\*\* RFC at the moment.

- GT: What are your experiences of high pressure matches?
- TT: Umm I've been lucky to play in quite a few so I've played in I think umm 9 cup finals for \*\*\*\*\* so I've played in 7 Somerest cup finals and 2 Bristol Combination finals.
- GT: Describe one that was really stressful.
- TT: Really stressful. Ummm ah Jes' that's a tough question. When we lost to... when we lost to North Petherton in 2011 that was really stressful.
- GT: What was stressful about it?
- TT: Umm we were the favourites going in to the game. Um the game was in April and the weather on the night of the game was particularly bad which favoured them more than us so that stressed me because I knew our game plan relied quite heavily on the conditions um and the game was tied going in to extra time and then we lost on a penalty kick off.
- GT: How do you normally cope in these high pressure matches?
- TT: Umm I try and umm sort of visualise before the game so I you know bit geeky but I'll check the weather a couple of days before and I'll keep checking it so I've got an idea of what it's going to be like. I'll then try and in training sessions trying to adapt... cus obviously I'm playing in a position which um has a bit of an influence on what we do so playing at outside half I can try and influence the way that we're playing so if I know that that the weather is going to be particularly wet going in to a game i'll try and run moves that are maybe low risk moves so less likely to make mistakes and if the weather's a bit better or the conditions are better on the day then I can run sort of more high risk moves. So basically trying to convince myself before the game's even started that I know exactly what we're going to do.
- GT: Now I will move on to the stressful experiences that you identified in the diary. You identified '\*\*\*\* shouting at me' as being stressful during one of the games. What was it that made this stressful to you?
- TT: Um well like I just said, in my head I've got a picture of what's gunna happen so I'm kind of visualising what I think is gunna happen and how I feel the game is going. And obviously \*\*\*\* as the head coach has got his vision of what's going on. But when you're in a position where you're having to make decisions, split second decisions when somebody else is shouting at you at the same time it's really difficult to to stay in control of what you're doing. So umm....
- GT: Can you remember the specific time he shouted at you in this game?
- TT: Yep. We had a penalty advantage and umm my philosophy always on a penalty advantage is to try and attack so to be positive so try and create

something from it so I'll throw a pass which is a high risk pass which I know is... I wouldn't throw if it was in normal conditions so I'll throw something and I know that he doesn't like that cus he doesn't always see that its a penalty advantage cus he's not always aware of what the referee's saying so umm so yeah so...

GT: On that time when he shouted at you. What were you thinking?

TT: I'm thinking / know what I'm doing, I know it's a penalty advantage so I'm thinking I wouldn't normally throw that pass so I'm throwing it knowing full well that if it goes wrong we have a penalty shot anyway.

GT: Did you know that he didn't know that?

TT: I knew that he didn't know that so

GT: So were you worried about what his perception was?

TT: Yeah his perception because obviously again when you're in a decision making role and especially being the captain as well when there's a doubt coming from the side line that then feeds in to the players. And the players are quite easily influenced by what's going on around them. So really what I need them to do is just understand why I'm doing that and not... and the same with the crowd I don't need the crowd thinking that I'm doing something negative for the team when I'm not I'm just trying to do something positive.

GT: So it was to do with doubt?

TT: Yeah a little bit about the doubt or not um just umm not allowing me just to make the decision in that moment.

GT: So how did you attempt to cope with this?

TT: Ummm I... Well I shouted across that we had a penalty advantage and then um and then we did get awarded a penalty. So in myself I'll say to myself in my head you know I'm justified in what I'm doing.

GT: All right so what was the intended outcome of your attempt to cope?

TT: To let him know. Um to be honest it probably isn't the best thing to do. What I should do is I should just focus in on what I'm doing and just ignore that.

GT: Once you shouted across to him and let him know. Did you feel better?

TT: Yeah yeah no I did yeah yeah and he acknowledged that it was a penalty so that that instantly... That did make me feel better but it didn't... because obviously I'd been agitated by the... by it anyway so I was still in that kind of agitated state. So that wasn't great but um although there was an element of feeling better it didn't make me feel completely...

GT: So did you do anything else other than just shouting across to him and letting him know?

TT: I shouted across and I might have said to.. I'll always apologise if it doesn't go right I'll always say sorry to the team but we've got a penalty. So I'll always justify it I'll always say you know we've got a penalty so you know that's why I did it.

GT: All right. So in this instance how effective was your attempt to cope with this stress on a scale of 1 to 5? 1 being ineffective and 5 being very effective.

TT: Probably a 4 I would say.

GT: OK so quite effective. Why do you think this was an effective strategy for you?

TT: Umm probably because of my personality make up. I like to be in control of situations so therefore by addressing it I felt like I'd redressed the balance so I was again sort of in control of what was happening and the coach had acknowledged that I'd made the right decision and that was what I needed to know.

GT: By shouting across you felt as if you had regained a bit of the control?

TT: Yeah regained a bit of the yeah the control of the situation and by him acknowledging it I had made my point.

GT: OK. I'll move on to the next one. You also identified '\*\*\*\*\* missing touch' as being stressful during one of the games. What was it that made this stressful to you?

TT: Umm so it was late on in the game. Umm we're winning by um 5 or 6 points and we had a penalty and we'd just been defending for quite a while and all I really needed him to do was just kick it 20 or 30 meters and he didn't he went for a bigger kick which they caught which then put us back on the defensive. Umm so um so obviously that put pressure back on to the team.

GT: What were you thinking? He's just missed the touch. What are your thoughts, what was causing you stress?

TT: Umm I'm stressed because I know that we should now have possession of the ball and instead we're gonna be defending again umm so we'd gone from doing all that hard work to get possession of the ball back and then we've just given it back to the opposition. And I know that 1 or 2 people will have just relaxed thinking we've got the ball again but when you miss touch you don't have that time to switch back on. When you hit touch you go to the break down and you start again but when you miss touch you don't have that time so I'm stressed thinking that 1 or 2 people around me aren't ready for the next bit.

GT: How did you attempt to cope with this stress?

TT: Um just literally just take the... so I always whenever anyone kicks I always try and take the defence up with me so I'll try and take whoever up with me and make sure that we make the tackle or somebody makes the tackle. So rather than just switching off and you know moaning at the individual for missing touch try and... Try and do something pro-active so do something positive.

GT: Did you communicate with anyone?

Yeah so I took umm probably would've been \*\*\*\*\* at outside centre and probably \*\*\*\*\* would've been chasing on that wing or whoever the winger was and I'll take them up with me and I'll try and affect the situation as quickly as possible so umm yeah my way of coping with it is just to try and react to it as quickly as I can.

GT: What was your intended outcome of this?

TT: Um that we obviously didn't concede but that it didn't become the kick.. try and turn the situation in to a positive situation. So although he'd missed touch as long as we made the tackle they were still kind of 60 – 70 meters away from our try line. So therefore that meant that I felt like we were regaining some control of the situation.

GT: Did you find that your attempt to cope got you to that outcome?

TT: Yeah because I could've just stopped and... I expect 1 or 2 people around me stopped but my reaction was to keep going and then and then we.. I think we made the tackle. It didn't lead to a try. So we made the tackle and that would've made me feel like we were back in control of the situation again.

GT: How effective was your attempt to cope with this stress on a scale of 1 to 5?

TT: Um I'd say probably a 4 again. It wasn't a brilliant... it wasn't the perfect outcome but it meant that I from that point didn't feel stressed about the fact that we'd missed the kick.

GT: Why do you think that that is an effective strategy for you?

TT: Because if I dwell on the situation that will increase the stress level and therefore um actually by doing something positive by doing something about the situation I stop the stress from increasing. Had I stopped and maybe said something negative to that person who missed touch or not tried to take control of the situation and had they scored I would have then felt... my stress level would've increased. I would have felt responsible as much as the person not getting the kick in to touch.

GT: You also identified '\*\*\*\*\* getting smashed' as being stressful during one of the games. What was it that made this stressful to you?

TT: Umm I made the wrong call. So um like I said I had... we had a set piece and I knew what I wanted to do off the set piece but the set piece went wrong and I

should have changed the call but I didn't I went with the call so it was quite early in the game and then one of our players got hit. And it wasn't because he got hit it was because the possession got turned over and I think they scored a penalty from it eventually. So I should have changed the call and I didn't and then that led to the opposition scoring a penalty.

GT: Where you the most stressed after they had scored the penalty?

TT: Well yeah... or as soon as it happened. As soon as it happened my stress level went up and then when they scored the penalty it was then I knew... I knew I was partly to blame for the scoring because I'd made the wrong call.

GT: As soon as it happened what were your thoughts?

TT: I was thinking crap I need to get back and defend now so I was annoyed... as soon as I threw the pass and he got hit I knew it was the wrong call. And you know there were other elements to it that might have changed it as well however my you know straight away I tried to react to the situation.

GT: You said you thought it was the wrong call. What was it about it being the wrong call that was stressful?

TT: Um at what I was going to do afterwards or... At that moment?

GT: No. In terms of making the wrong call. What is stressful about making the wrong call?

TT: Well because I had time to change the call so I knew.... I was thinking in my head change the call change the call and I didn't react and I didn't change the call so it's almost like the um you know its gunna happen. Like I knew... I knew it was the wrong call and I should have changed it and I and I could almost see what was gunna happen before it even happened and then when it did go wrong I was stressed that I knew I should have dealt with it at that moment.

GT: What did you do in order to cope with this?

TT: Umm so after that I then for the next 10 minutes went with very simple calls which were real low risk calls because I knew that they were kind of.... they were just they were really low risk calls. So the call I'd made initially was a bit of a high risk call. It was one that would have worked off the initial set piece but the set piece went wrong and that's when I should have gone back to something low risk where we're more likely to keep possession of the ball. So for the next 10 minutes I just went with low risk calls to almost um sort of get myself back in to the game.

GT: So was that the intended outcome, to get yourself back in to the game by making those...?

TT: Yeah because if I kept... if I kept calling high risk calls and they kept going wrong my stress level would have kept increasing and probably the people

around me their anxiety and stress levels would have increased. So what I did was I tried to decrease the stress level by making everything quite low risk quite simple just for the next kind of 5 – 10 minutes umm and which had a more of a... had a positive effect on me cus my stress levels went down and it had more of a positive effect on the team.

GT: How effective would you say this attempt to cope was on a scale of 1 to 5?

TT: That was really effective because we then... so I because... Again there's nothing worse than being in a decision making role when your stress levels are high. You want to have sort of anxiety and arousal but you don't want to be too stressed. What I didn't want to happen was that I was worrying about being in control of the game so stop... stop making calls. So what I then tried to do was make really simple calls that were really loud, really easy to make and then that raised my kind of umm performance. So my stress level went down slightly in terms of um sort of you know um like being distressed I was more kind of... I think it's used stress where it's more kind of positive kind of stress... so I was more focussed in in what I was doing and then my performance level actually went up. So that's what I'll quite often do. If I'm stressed about the situation in a game I'll default back to stuff that I know is simple and kind of gets me back in to the game.

GT: How effective was that out of 5?

TT: For me personally it was really effective because... um so it's probably a 5.

GT: Why do you think doing that is an effective strategy for you?

TT: Because umm it's almost like umm for me it's almost like points scoring so let's say I have 5 or 6 plays in a game if... I'm always trying to outscore myself so if I do um 4 out of 6 successful plays that is a positive for me. So if I make... if we run a move, so like I said that was a high risk move but if that goes wrong or we're not positive from it then I see that obviously as a failure so I then have to counter that by the next few attacking chances or next time we have possession of the ball as being positive. So I'll try and almost um decrease the risk of it going wrong. So that was why that was effective.

GT: Does that make you feel better?

TT: Yea because I feel like I'm not making a mistake for the team. And then once I feel like I'm outweighing the... so once I feel like I'm up on the um kind of umm sort of low risk... not low risk that's not the right word but once I feel like I'm being positive then I can start to not take chances but to up my performance then. I'll start making decisions rather than worrying about the decision I'll start making a decision, a split second decision. So where it's... it might be um throwing a miss pass – if I've just had one intercepted I'm probably not gunna throw one for the next 5 or 6 minutes. Now some players will take the gamble again and will throw it but for me I won't take that gamble not until I got myself back in to the game and then I'll start to...

- GT: So you want to get the more basic elements of the game perfect before...?
- TT: Yeah almost build the confidence of the people around me and get back to me being confident and then start trying to do something maybe that's a bit more high risk.
- GT: You also identified 'the punch up' as being stressful during one of the games. What was it that made this stressful to you?
- TT: Um so we just been defending, we'd got a turnover and then... and a penalty.. and the punch up happened and I thought the referee was going to change the penalty because one of our players had ran in and punched somebody. Now I know that there had been a punch by one of their players, however I couldn't be sure whether the referee had seen it or not so I was stressed that we were gunna lose the penalty and they were then gunna be awarded a penalty and we were inquite a danger... they were in our red zone, they were 5 meters out from our try line so it would have been a.. it would have been a either 3 points or even a 7 point.
- GT: You felt like they were definitely going to get some points out of it?
- TT: If they'd have taken a scrum I would have had confidence that we could try and defend it but it's a really tough position to be... we'd just been defending for 5 minutes so we'd done really well to get out of that situation. All I really needed at that point was for us to have the penalty and get some yards.
- GT: The main stress was that if they get the penalty then they'll get some points?
- TT: Yeah yeah the main stress was that we were gunna... the penalty was gunna be reversed and that we were gunna lose the penalty.
- GT: So what did you do, obviously before the ref didn't award the penalty... or rather you thought he might reverse it and he didn't? So what did you do to cope with it?
- TT: Umm so again I'm thinking umm well I'm thinking I'm gunna... I'm gunna speak to the referee and I'm gunna make sure that I speak first to him. I'm gunna make sure that I highlight that their player swung the first punch so I'm automatically thinking I'm gunna try and put it in to his head that we weren't... that both team were at fault. Because if both teams were at fault I knew he'd give us the penalty. So I'm thinking to myself I need to make the referee think that both teams were at fault here so we keep the penalty. So I'm already talking to myself thinking right what do I need to say and I'm also making sure that I sort of deliberately in front of the referee just calm the situation down, keep saying it's our penalty. Anything I can say that might um alter his kind of mindset slightly.
- GT: What was your intended outcome of doing this?
- TT: Umm well by, by either convincing the referee that they started the brawl or

that both teams were at fault I knew that he would give us the p... I knew he'd keep with the original decision of the penalty.

GT: Did your coping attempt help you get to that outcome?

TT: Yep yeah so that... so obviously by not um yeah by doing what I did that helped. We kept the penalty so we kept the penalty and he... although the referee was quite anxious we by me talking to him and their captain talking to him. Their captain also knew that if he could reverse the penalty it was in their favour. So he was doing everything he could to reverse the penalty and obviously I was talking to him to keep the penalty.

GT: So it's almost like the stress was they might get some points here. And then your immediate thoughts were right I need to...

TT: Yeah what can I do about it? How can I influence this moment you know so um my stress was we've just got a penalty we've just defended for 5 minutes and then suddenly they're now gonna have a penalty which is a 3... Its either a kick-able penalty or they would go for the try and we would lose a player, red card or bin or whatever. So my immediate thought is how I can influence this moment. And I knew that I could because obviously I was the captain. Had I been another player on the pitch I wouldn't... it would have been someone else trying to influence... and I would have still been stressed until we'd been awarded the penalty.

GT: How effective was this attempt to cope on a scale of 1 to 5?

TT: Umm yeah it was a 5. I knew that I was in a position to talk to the referee therefore it allowed me to go and to go and deal with the situation.

GT: Why do you think this was an effective strategy for you?

TT: Probably a bit of a control thing. So gaining back the control. So knowing that I had... I was in a position to go and say something, knowing I was talking to myself first just checking that I knew what I was going to say. Just was kind of gaining control in my own head before I went over and spoke to the official.

GT: You identified 'last minute try' as being stressful during one of the games. What was it that made this stressful for you?

TT: We... I we were close to winning and I knew we needed the 4 points and I knew that... and we could've we could've done with winning the game so um conceding right at the very end kind of undid a lot of the work that everyone had put in during the game. Me personally so I was quite stressed about that.

GT: So as soon as the try was scored what were you thinking?

TT: Umm I'm thinking. Um I'm thinking we've lost 3 points I'm thinking that straight away. I'm thinking we've lost three points you know. I'm not thinking we're gonna score again I'm thinking... Yeah I'm thinking we've just thrown away the

league I'm thinking we've just lost the game.

GT: Is it just that you'd lost that game? Was there anything else surrounding it that was stressful?

TT: I'm thinking that you know that obviously we're in a position where we need to be winning games you know we were unbeaten at home until that point. You know all these things I'm thinking that's all just gone in one.

GT: You're thinking that and the game hasn't finished yet?

TT: No.

GT: What did you do in order to cope with this?

TT: Well then I suddenly realised that we'd got 2 or 3 minutes left. I also say to myself well we will get 1 point out of the game so it's not the end of the world. I'll switch immediately to try and be positive so I'll think you know we've still got 3 minutes something could happen. We've got kick off, we're still gonna take a point from the game whatever so I'm sort of immediately trying to almost convince myself that there's still an opportunity or there's still something good to take out of it.

GT: What was the intended outcome of this?

TT: That I didn't then become negative towards the team or at the end of the game or negative. Or feel that we hadn't actually achieved anything. Cus I think I would've felt like we'd not achieved anything if I'd come off and had a different sort of mind set towards it.

GT: Did you find your attempt to cope helped you to get to that outcome?

TT: Um yeah, yeah I'll always try and convince myself of something positive. I'll always try and look for a positive outcome from something so in that situation although initially I was like you know we've lost the points you know that's game over that kind of thing straight away then I'm trying to convince myself ah it's OK you know and say something positive.

GT: So how effective was this on a scale of 1 to 5?

TT: Um probably a 4. 3 or 4. Its normally and effective way for me to work although I was still disappointed and I you know I'm still stressed about... and I'll still think about it you know after the game's finished and for the next few days or certainly even to this point now it still stresses me out a bit. So it's not totally effective. But in terms of in that moment... dealing with that moment it's a good way of trying to re-focus and sort of get some control back.

GT: Again why do you think that is an effective coping strategy for you?

TT: Because it's almost like tricking myself in to thinking something so it's almost

so like I said I'm looking for something positive. It almost gives me that kind of um little bit of control back. I feel like I'm sort of... I can still affect it or I can still do something about it.

GT: You identified 'losing ball in contact' as being stressful during one of the games. What was it that made this stressful for you?

TT: Umm we'd just got possession of the ball back and we were losing the game, I think something like 7-0. I made a decision to run with the ball. I went in to contact and the ball was ripped off me and then as I looked round the opposition were down the far end and looking like they were about to score. Umm they didn't score and obviously and straight away I'm thinking ah no I've just given possession away to the opposition and they're gunna score.

GT: What was stressful about that they might score? What are you worried about?

TT: I'm thinking... I'm worried that um. I'm worried that I've let my team mates down. I'm worried that I've let the supporters down. Umm I know it will bug me for ages and I know that it's the kind of thing that I'll think about afterwards and I'll be thinking ah that's so frustrating. So like I said earlier trying to outweigh the negative things with positive things from the game.

GT: What did you do to cope with this?

TT: Umm well I got up straight away you know tried to get back and then again just trying to sort of say to myself all the positive things that I've done in the game so far so thinking of any tackles I've made or any positive passes I've made or things like that. So sort of trying to convince myself again that I'm sort of still on top in terms of... And we didn't concede so I'm then thinking it's not the end of the world and you know I'm sort of saying to myself you know stay positive and do something positive with the ball next time you get it.

GT: So talking to yourself a little bit?

TT: Yeah just constantly saying I need to do this I need to do that next time and going back to something really low risk next time to sort of get rid of the stress again.

GT: What was your intended outcome of this attempt to cope?

TT: Umm so what I didn't want to happen was I didn't want to stop myself from.. I didn't want to stop myself from playing and sort of go in to myself. So what I'm thinking is I'm by again... talking to myself about all the positive things I'd done I'll keep myself sort of playing so. What I don't want to happen is I'm afraid to run with the ball or go in to contact or make a pass. So what I've gotta convince myself of all the good things I'd done as quickly as I can so that... because I know that the likelihood is I'm gunna receive the ball quite soon. In that situation almost a minute after I'm gunna receive the ball again so I've gotta get myself back to kind of a positive state ready to do the next thing.

GT: And did you find you got yourself back to that positive state ready to carry on?

TT: Yeah I think so yeah yeah. I mean it umm it took me a bit of time to get back in to the game having made a mistake but again I went kind of low risk, do something positive, build up my kind of... lower my kind of stress level if you like and build back up to feeling positive about the game again.

GT: OK. How effective was this attempt to cope on a scale of 1 to 5?

TT: Umm probably a 4.

GT: Why was that an effective strategy for you?

TT: Umm because I know that... Because I know that ultimately one mistake isn't gunna have the biggest... it's not gunna affect the game entirely. I know that the way that I work is that I'm worried about um I'm worried about beating myself up so... I know that if I can remind myself of all the good things that I've done in the game or the good things that I've done to that point then I know that I'll relax again. I'll feel more comfortable again about what's going on. And I know as well that I can affect the situation, I can get back in control of what's going on so... As long as I talk to myself, as long as I'm reminding myself of those things I know that I can get back in to that kind of positive state before... before the game restarts.

GT: Are there any other stressful experiences that you feel you regularly experience when performing that you didn't state in the diary?

TT: No probably not no.

GT: We've talked about stress, coping and coping effectiveness. Is there anything else you want to include regarding these areas?

TT: No.

GT: How do you feel the interview went?

TT: It was really good yeah. It was interesting to talk about it actually yeah.

GT: Do you feel you were able to get across your experiences fully?

TT: Yeah I think so yeah.

GT: Did you feel that the questions were leading in any way?

TT: Um no they weren't leading no.

GT: Are there any other comments or questions that you have?

TT: No.

GT: Thank you for participating in this study.