

**Cardiff School of Sport**  
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| <b>Programme:</b>          | <input type="text" value="SES"/>   |                    |                                       |
| <b>Dissertation title:</b> | <input type="text" value="EMOTIONAL RESPONSES TO INJURY IN RUGBY UNION PLAYERS: AN INVESTIGATION OF THE POTENTIAL INFLUENCE OF PLAYING STANDARDS"/>  |                    |                                       |
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**CARDIFF METROPOLITAN UNIVERSITY**  
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**CARDIFF SCHOOL OF SPORT**

**DEGREE OF BACHELOR OF SCIENCE (HONOURS)**

**SPORT AND EXERCISE SCIENCE**

**2013-4**

**EMOTIONAL RESPONSES TO INJURY IN RUGBY  
UNION PLAYERS: AN INVESTIGATION OF THE  
POTENTIAL INFLUENCE OF PLAYING  
STANDARDS**

**(Dissertation submitted under the discipline of  
SPORT PSYCHOLOGY)**

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**EMOTIONAL RESPONSES TO INJURY IN**  
**RUGBY UNION PLAYERS: AN INVESTIGATION**  
**OF THE POTENTIAL INFLUENCE OF**  
**PLAYING STANDARDS**

Cardiff Metropolitan University  
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## **Acknowledgements**

Firstly, I would like to thank my supervisor Dr Ian Mitchell for his guidance and support throughout the entire process.

Secondly I would like to thank all of the athletes' which participated for their time and effort which allowed me to gather the desired information.

## **Abstract**

The purpose of the present study was to investigate whether the playing standard of rugby union players influenced their emotional responses to injury. Specifically it examined the three phases of rehabilitation: onset of injury, rehabilitation phase and return to competitive sport. A sample of male rugby union players (n=10) participated in the study from both elite (n=5) and non-elite (n=5) playing standards, with all participants suffering a moderate to severe injury within the past 12 months. Individual interviews were conducted to gather the desired information which was later transcribed verbatim. Results revealed that during the onset of their injury every participant suffered from negative emotional responses, whereas during the rehabilitation process both groups experienced a decrease in negative responses as time progressed, however the elite subjects experienced positive emotions more frequently than their non-elite counterparts. Prior to their return to competitive sport, elite subjects experienced mixed emotions including responses such as confidence and anxiety, whereas the non-elite participants predominantly suffered from negative emotions prior to their return. It has been suggested that athletes' experience various emotional responses as a consequence of numerous demands which subsequently alter due to playing standard. Directions for future research are provided within.

**CHAPTER I**  
**INTRODUCTION**

## **1.0 Introduction**

According to Granito (2001), suffering from an injury may be the most difficult experience in an athletes' career. Regardless of the constant developments in techniques taught and individual prescribed conditioning programmes, Bauer and Steiner (2009) revealed that 14% of all medically diagnosed and treated injuries within Europe are associated with sport. Tracey (2003) acknowledged that a number of injured athletes' merely receive physiological support and rehabilitation while undergoing the injury process, where their psychological well-being is simply overlooked.

An increase of research examining athletes' psychological responses to injury has been observed over the past decade (Evans *et al.*, 2012; Wadey & Evans, 2011). Investigations have revealed (Williams, 2001) that psychological elements possess a significant influence in the manner in which an injured individual recovers from a sporting injury. Research has emphasised (Podlog & Eklund, 2006; Tracey, 2003; Wadey & Evans, 2011) the influence of an injury as a negative psychological impact while discovering that injured individuals' experience enhanced mood disturbances. These results coincide with those of Brewer and Petrie (1995) who revealed that higher life stress scores and depression were experienced by injured college football players while in comparison with uninjured players. Through possessing the capability to understand the influence an injury has on the psychological well-being of an athlete, practitioners may then possess the ability to facilitate their recovery through the employment of various coping strategies such as goal setting, relaxation techniques and positive self-talk. This strategy ensures that the athlete is psychologically prepared to return to competitive sport while minimising the risk of re-injury (Podlog *et al.*, 2011). Thus reducing the demands in which injured athletes are faced with while also minimising negative emotions.

There have been a number of investigations examining athletes' emotional responses while experiencing an injury (Hutchison *et al.*, 2009; Tracey, 2003). Research has identified (Wadey & Evans, 2011) that athletes experience numerous responses over three distinct phases during their injury process due to various demands (onset, rehabilitation, return). Frustration has been recognised as a frequent response during the initial phase of the injury (Klenk, 2006), similarly

Johnston and Carroll (1998a) proposed that feelings of frustration and depression occur prior to the commencement of the rehabilitation due to the disruption of normal functioning. According to Evans *et al.* (2012) prior to their return to competition athlete's experience responses such as fear due to thoughts of re-injury. Correspondingly studies have discovered that great levels of frustration and depression are a common symptom due to certain athletes' demonstrating a strong emotional response to injury (Leddy *et al.*, 1994). Results of similar studies revealed that athletes' experience a number of various negative emotions during this process, such as anger, depression, and frustration (Granito, 2001). Furthermore, Brewer *et al.* (2000) emphasised that suffering from great negative emotions during the injury may result in an unsuccessful return to competitive sport for particular athletes' due to the lack of adherence to their rehabilitation. It is imperative that athletes' are fully prepared, both physically and mentally prior to returning to competition without any doubts and/or concerns present. Evans and Hardy (1999) revealed that it may take up to six weeks for an injured athlete' returning to sport to have full confidence in their injured limb, which again highlights the importance of psychological preparation prior to return. However, this statement may not be applied to every injured athlete as there has been a lack of research in relation to the influence of performance standards on the psychological responses to injury.

Leddy *et al.* (1994) proposed that it would be fascinating to observe the reaction to an injury of an athlete who invests a great deal of time in to their chosen sport, more than those competing at recreational/collegiate level. Further research (Quinn & Fallon, 1999) illustrated that during a sporting injury elite athletes may perceive this experience as a traumatic life incident with both great psychological and physical implications, due to the copious amounts of time and energy spent attempting to attain peak performance levels. As predicted Morrey *et al.*'s (1999) study discovered that athletes who compete at a high standard suffer from a higher elevation in mood disturbances than their non-elite counterparts during their return to competitive sport. However, non-elite athletes suffering from an injury may experience a number of various fluctuations in certain aspects within their lives, such as social and academic factors which may influence the emotional response (Hutchison *et al.*, 2009). Whereas research has argued that the absence from sport itself such as

competition/training is the primary cause of emotional instabilities rather than the injury itself (Chan & Grossman, 1988).

The general aim of the study is to advance current knowledge in relation to the psychological responses to injury while examining rugby union players' emotional responses to injury with a particular emphasis on playing standard.

**CHAPTER II**  
**LITERATURE REVIEW**

## Literature Review

### **2.1 Introduction**

There has been a growing body of literature regarding an athlete's psychological responses following sports injury (e.g., Andersen & Williams, 1998; Bianco, 2001). This has been due to the realisation that not only an athlete's physiological welfare needs to be facilitated but also the individual's psychological well-being. Therefore, acknowledging when the athlete is prepared both mentally and physically for their return to competitive sport. The psychological aspects of an injury along with the feelings associated with that injury are often ignored due to the attention solely based upon the physical state of that individual (Tracey, 2003). Larson (1996) discovered that almost 90% of athletic trainers believe that it is "relatively important" or "very important" to treat the psychosocial aspect of an individual's injury. According to Taylor and Taylor (1997), confidence, motivation, anxiety and focus are four psychological factors which are essential for effective rehabilitation and completion of physical and psychological recovery from injury. Previous research (Duda *et al.*, 1989) discovered that the first three factors are significantly related to greater adherence and a better quality of rehabilitation. These findings demonstrate how vital the psychological well-being of an injured individual is to an effective and positive rehabilitation outcome. An examination of relevant literature regarding the emotional responses to an athletes' injury will be conducted, thus presenting an evaluation and critiques of literature with a justification of the purpose of the current study.

### **2.2 Review of Literature: Stage Models**

Wiese-Bjornstal *et al.* (1998) states that several conceptual models have been developed to deliver a frame of reference which facilitates the enhancement of knowledge in relation to responses to psychological injury (Gordon, 1986; Kubler-Ross, 1969; Pederson, 1986; Rose & Jevne, 1993; Weiss & Troxel, 1986; Wiese & Weiss, 1987). The first to recognise the importance of investigating the personal and situational factors affecting an athletes' response to injury and stress were Weiss and Troxel (1986). However during this time of examination there was one major limitation with their framework which was the lack of inadequate empirical evidence. Wiese and Weiss (1987) simplified and developed a custom design of the basic

stress model which was originally identified as a model for understanding the process of injury by Weiss and Troxel. Both Pederson (1986) and Gordon (1986) contemplated the prospect of an athlete experiencing a grief response in relation to a sporting injury, this theory was highly influenced by the research completed by Kubler-Ross (1969) who acknowledged a five stage grief response model: denial, anger, bargaining, depression and acceptance or reorganization. However, Rose and Jevne (1993) possessed a similar method where they derived from interviews with injured athletes to gain the required information. Rose and Jevne (1993) identified a four phase "risks model": getting injured, acknowledging the injury, dealing with the impact of injury and achieving a physical and psychological outcome.

### **2.3 Grief Response Model and Integrated Response Model**

Kubler-Ross's (1969) grief response model has been highly researched in the past (e.g. Gordon & Lindgren, 1990; Pederson, 1986; Rotella & Heyman, 1986). This popularity is due to the fact that certain researchers believe that the sense of loss experienced during an injury is believed to be a type of cognitive appraisal which indicates emotions which are closely associated with grief (e.g., Astle, 1986; Hardy, 1992). This model suggests that athletes pass through and experience a number of predictable emotions and responses while suffering a sporting injury; it has been viewed by Evans and Hardy (1995) that grief occurs as a response to a loss of an object or other of significant importance. Nevertheless, one key limitation of this framework was that the study's recruitment of participants which were based upon ill patients rather than injured athletes while attempting to explain emotional responses to sporting injury. Thus the responses recorded are not a reliable testimony as to how the population would react to a sporting injury, although past research (Heil, 1993; McDonald, 1990) states that those suffering from illness or disability experience the similar grief process as those suffering an athletic injury. On the other hand, Anderson *et al.* (2004) believes that the integrated model of psychological response has been identified as being the most approved and well developed framework while dealing with both sporting injury and the rehabilitation process. Wiese-Bjornstal *et al.* (1998) states that experiencing a loss directly related to a sporting injury is a course which takes place following an appraisal and develops to emotions frequently linked with grief (e.g. shock, denial). A proposal was later made

for a broader integrated stress model which incorporates grief as an emotional response. However this model does possess limitations, one of these being the lack of research conducted to discover the complete injury experience experienced by the athlete (Gayman & Crossman, 2003). This would have a significant impact on the results gathered due to its reliability of the emotions of the individual throughout the entire injury and rehabilitation process not being recorded. However, it is imperative to understand that the grief response model does not account for individual differences.

## **2.4 Injury Responses**

Granito (2001) took a different approach in comparison to earlier literature (Johnston & Carroll, 1998a; Tracey, 2003) with regards to the participants employed to gather the desired information. The study was based upon the appraisal process where the athletes' themselves make an interpretation of what they consider an injury to be. This qualitative study investigated the experiences of intercollegiate athletes emotional responses to injury, both athletes and student trainers were present during the investigation to attempt to establish a broader framework regarding emotional responses. Four focus groups were used: two groups of athletic student trainers (n=8) and two groups of intercollegiate athletes (n=7). Granito (2001) adopted Morgan's (1997) method while conducting the interviews, as a consequence this allowed participants to interact with each other during the interview process. During the analysis researches identified several different categories of general responses to athletic injury (personal factors, effects on relationships, sociological aspects, physical factors, daily hassles, feelings associated with injury and rehabilitation), including various sub-themes attached to each category. Results also indicated that every individual in the four groups spoke of how their injury affected relationships between athletes and the key people in their lives. It became evident that the five significant relationships (trainers, coaches, teammates, other injured individuals, parents) would have a large part to play on the response of the individual. However limitations were identified during the process of this study, these included factors such as a small sample size and the number of focus groups used. This would have a significant effect on the results due to the number of participants limiting the extent in which the results can be generalised to various populations.

## 2.5 Emotional Responses

The preferred method for evaluating an athlete's emotional response to injury has been the POMS (Profile of Mood States: McNair, Lorr & Droppleman, 1971) suggests previous research (Daly *et al.*, 1995; Smith *et al.*, 1993). Therefore, the emotional responses which are appointed in the POMS subscales are those which are most commonly referred to: tension, vigor, depression, anger, fatigue and confusion. However, Evans and Hardy (1999) state that POMS was developed with a lack of relevance to any psychological model of injury. Thus the validity of POMS must be questioned while in use with participants who originate from a sporting background due to it also being employed on those who are suffering illness. Houts *et al.* (1986) conducted a study with the hypothesis that counselling of individuals who have been newly diagnosed with cancer by former cancer patients will reduce psychological stress much more effectively than assistance by professional staff. The POMS was administered to thirty two newly diagnosed cancer patients over the stages (their first visit to the clinic, 6 and 12 weeks after entering the clinic). Researchers discovered that while observing the subscales (tension, anger, depression, vigor, fatigue and confusion), the feelings tended to decrease over the 12 weeks.

Studies have revealed that the psychological impact of receiving an athletic injury may become detrimental to the individuals psychological well-being and recovery. Previous research (Groves & Cresswell, 2007) revealed that injured athletes will experience a greater negative affect, higher levels of depression and anxiety, and lower levels of self-esteem than un-injured athletes. Similarly Wadey and Evans (2011) proposed that an injured athlete will experience a 'rollercoaster of emotions'. A study conducted by Johnston and Carroll (1998) used the grounded theory to define the emotional responses of athletes' to injury, the decision to use this method was due to its more in-depth method of research. Data was collected from sixteen participants with both male (n=11) and female (n=5) competitive and recreational athletes; all sixteen individuals participated in an "unstructured" interview and completed a demographic questionnaire based on their injury history and sporting involvement. The results indicated that immediately following the injury feelings of shock and disbelief were recorded which correspond with earlier investigations (Dawes & Roach, 1997).

## 2.6 Phases of Injury

Research on the psychological aspects of sport injury has exposed how significant psychosocial factors are in the successful recovery from injury throughout the various stages (onset, rehabilitation and return to sport; Brewer 2007). Wadey and Evans (2011) suggest that injured athletes experience a 'roller-coaster' of emotions throughout their injury process due to numerous demands such as timing of injury, financial demands, misdiagnosis, injury prognosis and missing training and/or competition. Whereas Chan and Grossman (1988) suggest that it is the removal from the athletic environment in which the athlete experiences emotional disturbances. Researchers discovered that the injured athletes' experience various stressors at different phases throughout the injury process (onset, rehabilitation and return to sport), and the manner in which they respond to those stressors has a detrimental effect on the recovery process (e.g., Evans *et al.*, 2012). Evans *et al.* (2012) proposed that the feelings which the athletes' experienced were relatively 'phase specific'; the most common stressors during the 'onset phase' included incapacitation and a loss of independence, a lack of progress/progressions and the ability of performing at pre-injury levels which were associated with the 'rehabilitation phase', finally the fear of re-injury was expressed during their return to competitive sport. With respect to their findings the current study did however possess limitations. For example, the assumption was made particular stressors such as the internal/external pressures may not have been related to their injury but in fact due to a characterological traits of those certain athletes'.

Tracey (2003) also conducted an investigation examining the emotional responses to the injury and rehabilitation process at different stages of the injury (onset of injury, 1 week post injury and 3 weeks post injury). 10 collegiate athletes participated in the study with a mixture of both males and females with all athletes either suffering a moderate or severe injury. Possessing a moderate or severe injury would restrict the athlete from training or competing for 7 days depending on the severity of their injury, Quackenbush and Crossman (1994) state that a severe injury results in a minimum of 21 days restriction of sport involvement and/or normal functioning. During the first interview which was conducted (onset) participants felt a 'rollercoaster of emotions' including feelings such as anger (Grove & Creswell, 2007; Hutchinson *et al.*, 2009), confusion and depression while attempting to adapt to the

injury process, again these are all negative emotions which the athletes' experience which support previous findings (Chan & Grossman, 1988; McGowan *et al.*, 1994; Sparkes, 1998). The second interview which took place (1 week post-injury) discovered that frustration was the most frequent negative effect experienced by the athletes', not only was frustration mentioned in the first and second interview but also in the questionnaires. It was later established during the second interview that athletes would take their negative emotions and display an increase in positivity. These results indicate that the athletes' negative emotions gradually decrease with time and that a display of positive thoughts develop later on during the injury process; these findings are corresponding to the earlier research of Pearson and Jones (1992) who's results also identified an increase in positive emotions over time. The third and final interview revealed that athletes found it highly beneficial speaking to someone regarding their emotions, whether it be family, friends or even other injured athletes. By this stage certain athletes had returned to competitive sport while others with more severe injuries remain to experience frustration but continue to have a positive attitude towards the future; whereas 4 of the athletes which returned to sport reported feelings of loneliness and isolation due to not feeling apart of the team which they were once affiliated with. The review of this study has uncovered a variety of limitations which undoubtedly question the reliability of its results. Firstly, the use of only three collection data phases, this limited the information of emotional responses to only three specific periods in that individuals injury.

As previously mentioned, studies have discovered that psychological factors play a significant role in the recovery process from sport injury (Brewer, 2001; Williams, 2001). This is due to previous research such as Wiese-Bjornstal *et al.* (1998) revealing that the athletes' psychological response to their injury contributes to the rehabilitation outcome. Therefore it is vital for the individual to possess a positive attitude towards the rehabilitation process as it affects the outcome of their injury. A study piloted by Heredia *et al.* (2004) was aimed at identifying how psychological responses influence the physical and sporting recovery of an injured individual. The POMS comprised of scales for tension, depression, anger, vigor, fatigue and confusion; in addition all participants also completed the subjective injury estimation questionnaire (SISQ). The findings state that the relationship between psychological response and recovery indicate that the physical and sporting recovery from an

injury are narrowly interrelated (Sig: 0.64,  $p < .05$ ) and also possess statistical relationships between the different response models measured. The results which were collected during this study are coherent with those gathered by Ramirez *et al.* (2002) who also acknowledged the identical hypothesis that as an athlete recovers from injury that individuals' mood state develops to mirror the ICEBERG profile. Similar results were recorded during McDonald and Hardy (1990) study which explained that injured athletes expressed high levels of depression and anger during the initial stages of the injury, however as they progressed through the stages of rehabilitation their negative emotions tended to stabilise.

How an injured individual responds to their injury highly influences the manner in which they will approach their rehabilitation phase and have a large impact on the outcome; therefore it is how that individual perceives their rehabilitation programme and whether or not they adhere to it will have a significant effect on the recovery outcome. Previous findings (Johnston & Carroll, 1998a) suggest that the early stage of the rehabilitation phase consists of negative emotions due to the disruption of normal functioning. On the contrary, Taylor and Taylor (1997) proposed that motivation, confidence, focus and anxiety are four psychological factors required to ensure a successful recovery. The most consistent personal factor linked to adherence is self-motivation (Duda *et al.*, 1989), therefore depending on the athletes' psychological response a positive or negative outlook towards the injury may affect the individuals' self-motivation which will then affect the entire rehabilitation process and outcome. Earlier studies (Byerly *et al.*, 1994; Fisher *et al.*, 1988) have identified that the positive associations of adhering to a rehabilitation programme also generates a greater pain tolerance, this indicates that not only does a positive outlook benefit the individual through the rehabilitation phase but also through the entire injury process. However, athletes suffer from various demands such as slowness of progress, finding the rehabilitation exercises too repetitive thus getting bored and experiencing setbacks while attempting to overcome and progress through the rehabilitation phase (Evans *et al.*, 2000; Gayman & Crossman, 2003). Numerous studies have also highlighted that throughout the rehabilitation stage injured athletes will suffer from an abundant of difficulties (Bianco *et al.*, 1999; Evans *et al.*, 2000; Gould *et al.*, 1997a). Although Shelbourne and Foulk (1995) proposed that the athletes' needs to return to competition leads them to provide false

information regarding their current injury status so that they may return as soon as possible, therefore jeopardising their physical and psychological health through exposing themselves to various demands such as fear of re-injury.

The completion of an athletes' physical rehabilitation does not guarantee that the individual is prepared to return to competitive sport, previous research (Johnston & Carroll, 2000) have reported findings of negative emotions and cognitions experienced by athletes prior to returning to competition. These findings coincide with the research conducted by Crossman (1995) who investigated the emotional responses of injured athletes over four phases (the day of injury, the following day, halfway through rehabilitation and the day of return to competition). The authors' findings revealed that astonishingly a higher number of the participants (40%) experienced fear while returning to sport whereas only 13% of the participants experienced fear the day of the injury. These findings coincide with Evans *et al.* (2012) who identified fear of re-injury a frequent response prior to return. Previous studies (Cox, 2002; Podlog & Eklund, 2006) highlighted a number of demands which trigger negative responses among injured athletes returning to sport, these demands consist of factors such as re-injury, returning to pre-injury levels, lack of confidence in injured limb, concerns in relation to physical demands of return and setbacks' (Carson & Polman, 2008; Podlog & Eklund, 2009; Wadey & Evans, 2011). However, Evans *et al.* (2012) discovered during their study that the 'return to competition' phase contained the least amount of stressors experienced by the injured athletes, although stressors such as fear of re-injury (Evans *et al.*, 2000; Podlog & Eklund, 2007, Walker *et al.*, 2004), loss of fitness and loss of confidence in the injured limb were evident. Even though there were fewer stressors experienced during this particular phase all stressors are equally vital to the successful return to competition and failure to do may have a detrimental effect on that individuals' recovery.

## **2.7 Elite Athletes**

The most common emotional responses associated with athletic injury have included boredom, depression, frustration, anger and tension (McDonald & Hardy, 1990; Pearson & Jones, 1992). Quinn and Fallon (1999) suggest that during a significant injury an elite athlete will experience greater physical and psychological implications due to the amount of time which they devote in obtaining peak

performance levels. Investigations have been conducted in relation to elite athletes' emotional responses to injury; for example Quinn and Fallon (1999) examined the psychological characteristics and reactions of injured elite athletes while examining how the athletes' reactions develop over four phases (upon injury, partial recovery, semi-recovery and full recovery). The results from this study coincide with past research (Smith *et al.*, 1990) who also indicated that during the initial onset of injury the athletes display higher levels of depression, confusion and anger, however as the phases progress the development of positive emotions increase. The statistics recorded indicate that the athletes did not move across the grief response model which was established by Kubler-Ross (1969), where some researchers believe this to be the case (Gordon, 1986).

## **2.8 Non-Elite Athletes**

Hutchison *et al.* (2009) performed a study to enhance their knowledge regarding the comparison of emotional responses experienced by athletes' who have suffered a concussion and those who have suffered minor musculoskeletal injuries. The results gathered overlap prior research (Morrey *et al.*, 1999) which were assembled stating that an athletes' emotional disturbance following injury and pre-injury emotions is not relevant to the mood of the athlete post-injury. Results also displayed a significant increase in anger originating from athletes' who suffered a musculoskeletal injury, this increase in anger occurred during the post-injury phase. Once again, all athletes reported feelings of depression during onset of injury, however previous findings suggest that depression is common among injured athletes (Pearson & Jones, 1992). Research suggests (Chan & Grossman, 1988) that it may be the individuals' removal from the athletic environment i.e. competition which alters emotional disturbance rather than the injury itself. Whereas Hutchison *et al.* (2009) believe that an athletes' emotional response to injury is individual specific, removal from competition has no apparent influence on the severity of emotional response. However Johnston and Carroll (1998) disagree with these findings, feelings of anger, jealousy, regret and depression were recorded while injured athletes were exposed to a sporting environment due to possessing a state of mind in relation to missed opportunities.

## **2.9 Elite vs. Non-Elite**

There has been a lack of research regarding the various emotional responses experienced by elite rugby union players to non-elite rugby union players in response to an athletic injury. Tyler and Ellison (1994) explored sources of stress and psychological well-being in high-dependency nurses; 60 nurses all originating from one single NHS hospital completed questionnaires in relation to levels and sources of stress, ways of coping and psychological well-being. The results recorded display a similar amount of stress throughout all the nurses, nevertheless the sources and levels of stress did vary. However, the nurses who possessed post-qualification training i.e. additional/greater responsibilities did in fact experience greater levels and sources of stress. The results gathered by the authors support previous findings (Quinn & Fallon, 1999) who identified an increase in stress experienced by athletes which compete at higher levels.

## **2.10 Conclusion**

It is evident that previous research has uncovered a number of findings in relation to elite and non-elite athletes' emotional responses and experiences through the injury process. Though, there has been little evidence to suggest that elite rugby union players' emotional responses differ to non-elite rugby union players while undergoing an injury. This study aims to develop knowledge regarding the relationship between playing standards in male rugby union players and the influence of emotional responses to injury. Not only will the players possess a greater understanding of their experiences, but also it will allow physiotherapists and coaches to facilitate that individuals needs and embrace a more positive rehabilitation process which will undoubtedly have a positive effect on the recovery outcome.

**CHAPTER III**  
**METHODOLOGY**

## **Methodology**

### **3.1 Research Design**

The use of a quantitative analysis during a research design, particularly a study which is primarily observing athletes' responses to injury may possess a lack of appropriate measures due to the dependence required from measures which do not retain the correct population (Brewer, 2001). Previous research (Podlog & Eklund, 2009) suggested that a qualitative measure was considered to be a more appropriate pathway for their research, due to their choice of open-ended questions to gain a deeper understanding and receive larger amounts of information from each individual. Jones (1997) also states that the qualitative approach allows for a deeper and broader understanding regarding a certain phenomenon through the use of interviews and observations. However, Thomas *et al.* (2005) believed that it was fully dependant on the aim of the study to which approach should be undertaken and that both qualitative and quantitative each had their own strengths and weaknesses. Nevertheless, a qualitative approach will allow participants to answer questions with more detail and give explanations regarding their answers, whereas through the quantitative approach participants are restricted to a questionnaire which limits the amount of detail which can be recorded and analysed. Thus the decision to use a qualitative approach was made to investigate the emotional responses experienced by rugby players from two different playing standards (elite and non-elite).

### **3.2 Participants**

The sample for this study consisted of white male rugby union players ( $n=10$ ) aged between 19 and 29 years old, competing at two different playing standards: elite and non-elite, while all subjects suffered an injury in either training or competition. Both the elite ( $M = 22.6$  years,  $SD = \pm 3.61$ ) and non-elite ( $M = 20.6$  years,  $SD = \pm 1.36$ ) samples comprised of 5 individuals who compete at international, regional, club, and recreational levels. For the present study 'elite' athletes were deemed as having competed at a regional or an international level, whereas 'non-elite' were deemed as competing at club or recreational levels. The selection of participants who possess experience and/or knowledge of a specific area of research which would allow the research question to be addressed are deemed as purposive sampling (Patton, 2002). Thus, the decision was made to use purposive

sampling to select individuals which met the criteria, and based upon the individuals' experience in the given area which is being investigated were asked to participate in the study. The criteria's intention was to certify the recruitment of subjects from both elite and non-elite rugby union teams which had suffered a moderate/severe injury in the past 12 months prior to completing an interview. Previous research has established (Johnston & Carroll, 1998a; Quackenbush & Crossman, 1994) that a severe injury involves an individual incapable of normal functioning or sport involvement for a minimum of 21 days, with a moderate injury restricting an individuals' normal functioning or sporting involvement for a total of 7 days (Tracey, 2003). Evans and Hardy (1995) believe that the restriction of an athlete from normal functioning or sporting involvement for 21 days serves as a sufficient amount of time by which that individual may experience numerous emotional and psychological responses to their injury. The injuries sustained include soft tissue damage to the shoulder (n=2), broken thumb (n=1), broken finger (n=1), grade 2 tear of hamstring (n=1), indirect ACL injury (n=1), direct ACL injury (n=1), hyperextended groin (n=1), and synovitis knee capsule (n=1).

### **3.3 Interview**

An interview guide was specifically designed for the purpose of conducting the interviews based upon a critical review of relevant literature in relation to the emotional responses experienced throughout three distinct phases (onset, rehabilitation, and return). The interview guide was created to take in to account three separate phases of the injury process, these being: onset of injury, the rehabilitation process, and the return to competitive sport. Each section possessed specific questions in relation to the different phases to explore and discover the demands and emotional responses the subject's experienced, and how these emotions altered as time progressed.

Interview guide comprised of six sections with questions including (See Appendix A):

1. Do you feel that you experienced emotional responses in relation to the stages you were in?
2. One week after your injury did your emotions towards your injury change in any way?

3. What was the atmosphere like during your rehabilitation?
4. Were there any aspects of returning to sport particularly difficult for you?

Granting that all questions included in the guide covered the desired topic areas, to collect all essential information from the interviewee the exact wording and/or probes did alter at times. Probes were employed throughout the interview guide (clarification and elaborative) to gain more of an in depth answer and receive increased amounts of information in relation to their experiences.

### **3.4 Pilot Study**

To ensure the validity of the study, a pilot study was conducted prior to the commencement of data collection so that any flaws identified can be removed and modifications may be made if need be (Thomas *et al.*, 2005). The pilot study served a purpose of identifying any faults in relation to its contents and to ensure that each question/probe were at a suitable level for the participants understanding, so that they may answer each question in as much detail as possible (Maxwell, 2005). An additional advantage of conducting a pilot study was the opportunity for the researcher to practise their interviewing skills, such as leading the interview in a formal and professional manner, highlighting and altering irrelevant questions/probes and to test out the recording device to ensure its reliability. Completion of the pilot study revealed issues in relation to a question due to the participant's lack of understanding and an absence of the required information produced. Therefore the correct wording was employed to resolve this issue so that the subject's understanding was met while responses were more accurate towards the researchers' desire.

### **3.5 Procedure**

The approval of the Cardiff Metropolitan University ethical committee was given in advance to the commencement of this investigation. Contact was initially made by phone to ten potential candidates to clarify their willingness to participate along with a brief explanation of the intention of the study. Of the ten individuals which were contacted, all agreed to participate in the investigation along with providing written consent. Following the confirmation of all ten individuals, emails were sent to every individual containing details regarding the aim of the investigation, a participant

information sheet (See Appendix C), ethical considerations and an informed consent form (See Appendix D) which was signed by every participant. The location and time of each interview was decided upon by the interviewee, with most interviews being conducted at the interviewees' home. Thomas and Nelson (1996) believe that a significant element while conducting an interview is the rapport between the interviewer and interviewee. Due to this vital aspect, all participants that were chosen were familiar with the interviewer through years of playing with and against in a number of various games and competitions. Thus enhancing the trustworthiness and familiarity between the interviewer and interviewee, this according to earlier research results in a good rapport (Thomas & Nelson, 1996). While allowing the interviewee to feel more relaxed and comfortable throughout the interview, and as a consequence gathering more detailed information in relation to their experiences. Prior to the beginning of each interview all participants were informed that all data gathered and their identity would remain confidential and would only be available to the researcher, as well as informing subjects of their rights to withdraw from the study at any point and that there are no right or wrong answers. To summarise the interview, the interviewee was asked on how they felt the interview went along with an opportunity to add any additional information they felt was not included or add any comments in relation to their experiences. After the completion of each interview the participants were then thanked for their time and cooperation.

### **3.6 Reliability and Validity**

Both validity and reliability have been highlighted as two significant elements which should be taken in to careful consideration while conducting a qualitative investigation (Patton, 2002). Saunders *et al.* (1997) considers reliability of a study as the process in which future researchers can produce identical results in which the original study collected through the use of the same method. This was accomplished through the interview guide. The interview guide used during the present study can be later used in future research to determine whether researchers can produce similar results as those collected in the present study. Nonetheless the reliability of the present study may be seen as suitable for the current study, however, cannot be reliable when compared to previous research using numerous subjects from various competitive standards. This limitation was resolved through demonstrating professionalism throughout the out the interview while maintaining a formal manner.

Thomas and Nelson (1996) proposed that internal validity is caused by a certain individual, in this case the researcher, attempting to control the various elements in which may influence their results. Attaining internal validity was accomplished through presenting the same questions to each participant, although certain probes after particular questions used in each interview varied due to the need of obtaining the necessary information. A possible limitation which may influence the validity of the study could potentially be the researchers' interpretation of the information provided by the participants. Member checking (Johnson, 1997) was used to confirm that all information received was an accurate description/explanation of the participant's experiences throughout the interview process. Furthermore, as a consequence increasing the trustworthiness of the study through providing transcripts of the interview to each participant so that they may modify or remove anything they feel is not a correct/accurate account of their experiences.

### **3.7 Data Analysis**

Data analysis has been recognised as the period in which the researcher attempts to identify and categorise significant elements from copious amounts of information while attempting to identify imperative themes and patterns (Patton, 1990). The process of analysis began by the researcher listening to the recorded interviews and then transcribing every interview verbatim (See Appendix B). After the completion of each transcription, they were then studied and examined while listening to the recorded-audio of the interviews to ensure all information transcribed was correct and accurate. The use of content analysis and also cross-case analysis was then employed while analysing each transcript. This method can be performed in two ways (inductively and deductively) and involves identifying a common theme through categorising information (Côte *et al.*, 1993), which has proven to be a success in a number of previous qualitative investigations (Meyer & Wenger, 1998; Scanlan *et al.*, 1989). Furthermore, inductive analysis involves the development of logical categories/themes which originate from the information, while already established categories/themes are used for deductive analysis (Thorne, 2000; Patton, 2002). During the present study both inductive and deductive analysis were employed, first of all deductive analysis was used to highlight comments/quotes which are parallel to those of previous findings. Additionally, inductive analysis was

used to group and categorise new themes based upon quotations and phrases/words collected during the interview process.

**CHAPTER IV**  
**RESULTS & DISCUSSION**

## **Results & Discussion**

The purpose of the present study was to investigate whether playing standards of rugby union players had an influence on the emotional responses caused by injury, while specifically observing three separate stages: onset of injury, the rehabilitation phase and the return to competitive sport. The completion of data collection was accomplished through a number of individual interviews with both elite and non-elite rugby union players who had suffered a moderate/severe injury. The results gathered were then later examined to identify any similarities and differences between the two groups, to further understand whether emotional responses to injury of players are influenced by playing standard. The data collected coincides with a number of previous researchers (Evans *et al.*, 2012; Pearson & Jones, 1992), which established that emotional responses alter as time progresses through the injury process.

### **4.1 Elite: Onset**

The most frequent responses experienced during the onset of the injury by the elite participants included frustration (n=5), shock (n=4) and depression (n=3). As recently stated frustration had been established as the most recurrent emotion experienced during the onset of the injury, while previous studies also recognised this as a frequent response (Grove & Cresswell, 2007; Klenk, 2006; Wadey & Evans, 2011). Although each elite athlete experienced feelings of frustration, the cause of the response varied. Elite athlete 4 for example experienced feelings of frustration through thoughts of missed opportunities and his teammates advancing ahead of him:

'ye I think like, when I was injured the... obviously I wasn't playing for that certain amount of time I was um, frustrated... maybe I was feeling that other people were going to take my chance, so certain types of things. Because I am out of the game it does open up a window for someone else to take their chance'

Elite athlete 3 experienced frustration as a consequence of similar demands in relation to loss of game time and being absent from the team environment. However, the current results coincide with earlier research, which suggests that the removal from athletic competition is what triggers emotional disturbances rather than the injury itself (Chan & Grossman, 1988).

‘uh, no not really it’s just more frustrating with an injury really, you want to play constantly but when you get setbacks like that it’s quite frustrating... It’s just frustrating because you turn up for training every day and everyone else can just carry on and you’re stuck doing your own things and you can’t train with the normal group’

However, this athlete not only suffered from frustration as a result of lack of game time but also through negative thoughts regarding losing his place in the squad by spending too much time in the rehabilitation phase: ‘because you don’t win contracts in the gym’.

Feelings of depression were also identified, these results concur with previous studies who proposed that injured athletes experience a number of various negative emotions including heightened levels of depression (Leddy *et al.*, 1994; McGowan *et al.*, 1994). Dawes and Roach (1997) believe that the emotional response to an injury will vary as much as the severity of the injury, though the cause of depression did alter due to the severity of the injury. For example elite athlete 1 suffered from a severe injury in which he was absent from competition for a period of 9 months, therefore this athlete experienced enhanced levels of depression while questioning his future in sport. Whereas elite athlete 3 suffered from elevated levels of depression as a consequence of experiencing difficulties completing simple tasks while working on a family run farm, hence a disruption in normal functioning: ‘depressed because I had to come home on the farm and I could barely open a gate or lift a bucket up’.

Shock was the final most frequent response experienced during the onset of the injury process for the elite athletes. These findings which propose that shock is a frequent response during the onset of injury are consistent with the data collected by earlier studies (Granito, 2001; Grove & Cresswell, 2007; Wadey *et al.*, in press). Elite athlete 5 experienced his injury during the warm-up prior to the first game of a

tournament and as previous findings discovered responded with shock during the initial moment of injury. However, this particular athlete made a more accurate assessment of the severity of his injury due to comparing it with previous injuries. This data coincides with the data gathered by Johnston and Carroll (1998) who highlighted that individuals' who had suffered any previous injuries made more of an accurate appraisal to the severity of their current injury. Elite athlete 5 states how he assessed his current injury through comparing it with previous injuries: 'It wasn't my tendonitis because I can deal with my tendonitis that's fine, but it was something that wasn't allowing me to run and I had to pull out immediately'.

## **4.2 Rehabilitation**

As identified through data collection, results revealed the three most common responses experienced during the rehabilitation phase by elite athletes were encouragement (n=5), motivation (n=5) and happiness (n=4). Although all of the emotions reported are positive, negative emotions were present during the rehabilitation phase. Elite athlete 2 displayed feelings of anxiety prior to beginning the rehabilitation process due to concerns in relation to the length of time spent in rehabilitation, although this data is dissimilar to the findings of previous research (Johnston & Carroll, 1998a) who believes that the early stages of rehabilitation include emotions such as depression and frustration as a consequence of disturbance to normal functioning, whereas elite athlete 2 suffered from anxiety as a result from overestimating the recovery period needed: 'I suppose at the start you're a bit anxious thinking about will it be longer but once it started getting going and progressing they see it going to schedule it gets positive then'.

Parallel to early research (Crossman *et al.*, 1995), this athlete's negative responses diminished as time progressed due to positive progressions in his treatment which has also been consistent among later investigations (Bianco, 2001; Granito, 2001). These findings are consistent with McDonald and Hardy's (1990) study that recognised an increase in positive emotional responses during the rehabilitation phase as a consequence of progressive developments after initially suffering from various negative responses.

Motivation was an additional recurring response experienced by the elite group, however individually they experienced this emotion as a result of separate causes

and at different stages of their rehabilitation. Elite athlete 5 experienced feelings of motivation due to the commitment of the physiotherapist towards his return and well-being, while Pearson and Jones (1992) revealed during their study that four of the six who participated were influenced emotionally by their physiotherapist, thus a more successful return to competition.

'You could see that they were committed to you so that made you work harder. Because it is basically with the physio you are one on one so all of their time is on you, it wasn't like coaching 15 people it was one on one, more focused on you'

Whereas elite athlete 3 gained motivation from experiencing progressions in his treatment without the occurrence of setbacks: 'Ye it made me more motivated and more positive because I was always seeing myself progress'.

However, all elite athletes also reported feelings of encouragement and happiness at some point during the rehabilitation process. Once again these particular responses were triggered by various causes towards the latter stages of the rehabilitation phase. Elite athlete 1 described feelings of encouragement through positive feedback and encouragement provided by the physiotherapist:

'Uh, ye the physio would always encourage me and always speak to me in a positive way. Um, then exercises were very helpful as well. The good thing about the exercises was that it wasn't the same old thing all the time so I wasn't getting that bored of doing them'.

Although a number of positive emotions have been highlighted during this specific phase every elite subject experienced negative emotions due to thoughts of other athlete's taking their positions in the team and advancing in front of them as well as thoughts of missed opportunities. Interestingly, certain athlete's responded with feelings of worry due to this cause whereas others suffered from emotions such as depression and disappointment. Previous research have proposed that athletes may experience and express negative emotions such as anger, jealousy, regret and depression as a consequence of thinking about unable to seize opportunities (McDonald & Hardy, 1990; Quackenbush & Crossman, 1994; Smith *et al.*, 1993).

### 4.3 Return

Elite participants experienced a number of mixed emotions during their time returning to sport, the most recurrent emotions included anxiety (n=5), worry (n=5), confidence (n=3) and excitement (n=5). Suffering from mixed emotions prior to return has also been highlighted in previous studies as a frequent experience (Podlog & Eklund, 2006; Podlog and Dionigi, 2010). Earlier investigations (Crossman, 1995) investigated the emotional responses of injured athletes and revealed that during their return to competition a staggering number of the subjects (40%) experienced negative emotions such as fear. Evans *et al.* (2012) also suggested that during the 'return to competition phase' injured athletes experience emotions such as fear of re-injury which is consistent with current findings. Elite athlete 3 describes experiencing feelings of anxiety due to fear of re-injury:

'But when you're shoulders week you second guess yourself really and think if you really can do it or not... And for the first few games I was anxious about how my shoulder would cope because I was playing at a high level'.

Granting Evans *et al.* (2012) proposed that injured athletes returning to competition suffer from a loss of confidence, the results from the present investigation respectively disagree with those previous findings through suggesting that a total of three participants experienced enhanced confidence levels due to completing fitness/strength tests prior to their return. Elite athlete 1 described feelings of confidence due to completing fitness/strength tests and receiving greater scores than what he originally received prior to his injury: 'I was really positive and confident because during those tests I did better than what I did before I had my injury'.

Feelings of worry were experienced by all five elite athletes, once again the cause of this response is similar among all of the elite participants with the causes primarily relating to performance levels and fear of re-injury. Previous studies have also identified re-injury as a frequent demand among the return phase (Podlog & Dionigi, 2010; Wadey & Evans, 2011). Elite athlete 2 was worried about re-injury whereas elite athlete 5 was worried regarding his performance levels, re-injury and the strength of his injury. However elite athlete 3 experienced worries while thinking about executing his first tackle during his return. These demands of reaching pre-

injury performance levels coincide with the demands identified by Podlog and Eklund (2009) that discovered that performance was directly related to a successful return. However this was an extremely worrying time for this particular athlete due to not providing accurate or correct feedback to the physiotherapist during the latter stages of his rehabilitation process in relation to his injury. This information is parallel to that received by Shelbourne and Foulk (1995) who identified that the craving of an injured athlete to return to competitive sport leads them to overlook the rehabilitation programme and to confirm that they have successfully recovered while not fully recovered. These results correspond with data gathered by Bianco (2001) who revealed that elite athlete's returned to competition sooner than advised due to fear of losing a place in the team.

'Ye it was the night before the game my final fitness test, I had to tackle someone for the first time and everything went well. But I'll be honest, I lied a little bit and said that my shoulder didn't hurt but it did a little bit just so I could play the game'.

#### **4.4 Non-Elite: Onset**

Consistent with earlier research, (Chang & Grossman, 1988; Pearson & Jones, 1992) the data gathered demonstrates that injured athlete's experience adverse emotional conditions due to suffering a sporting injury instantly after the incident occurs. Feelings of anger (n=5), worry (n=4) and being afraid (n=4) were the three most common responses assembled among the non-elite participants during the 'onset' phase of their injury. Previous studies have proposed that during this particular phase emotions are predominantly more intense than other stages of the injury process (Carson & Polman, 2008). Anger was recorded as the most frequent response during this particular phase with every non-elite subject experiencing this emotion which is consistent with earlier investigations (Grove & Cresswell, 2007). However the cause of the emotion to each individual alters as a consequence of various stressors triggering this emotion. The various stressors which trigger specific emotions concur with the four dimensions identified by Evans *et al.* (2012) sport-related demands, social demands, medical/physical demands and financial demands. Anger had been identified as the most frequent response while non-elite athlete 1 and non-elite athlete 4 experienced anger due to similar stressors such as

allowing themselves to get injured and allowing themselves to get in to that situation. Non-elite athlete 1 describes how he felt anger towards himself due to his actions: 'And to be honest just angry at myself because I didn't have to do it but it was just a glimpse of the moment to do it, and I was angry then that I did it'.

Whereas other athlete's experienced anger due to stressors such as unable to work and receiving an incorrect diagnosis from the doctor on more than one occasion in relation to his injury. Nevertheless, a number of studies have acknowledged anger as being one of the most frequent emotional responses experienced during onset (Grove & Cresswell, 2007; Tracey, 2003). These findings are also consistent with those gathered by Hutchinson *et al.* (2009) who also identified anger as a frequent response among non-elite athletes during the 'onset' of the injury process.

One of the antecedents of the responses experienced during the 'onset' stage of the injury consist of lack of financial income, non-elite athlete 1 experienced negative emotions such as depression due to his injury preventing him from working which resulted in a lack of income for the duration of his injury. These findings are consistent with numerous studies (Evans *et al.*, 2000; Gayman & Crossman, 2003) that identified the lack of financial income as a demand in which injured athletes may face: 'Well no because I lost out on a lot of work, well it was work more than anything for me, and well obviously the income'.

Further antecedents include injury prognosis, reported feelings of being 'afraid' due to certain athletes' (non-elite athlete 1) suffering from this response due to his lack of knowledge regarding the severity of his injury. Thus the athletes' train of thought is flooded by countless questions in relation to his injury, questions such as: How long am I out for? Will it require surgery? Researchers have highlighted that athletes are bombarded with a number questions which create new stressors and demands (Carson & Polman, 2008; Tracey, 2003). Misdiagnosis which was repetitively experienced by non-elite athlete 3 was also recorded as a consequence of receiving an inaccurate diagnosis on numerous occasions by a medical practitioner. As a result this athlete suffered with various negative emotions which such as anger and frustration.

'The initial onset was more frustration from going to the doctor's and telling me there's nothing wrong with my knee then trying to play rugby, trying to side step someone and my knee would give in and swell up and then go back to the doctor and they just say, "run it off again". Well that was just frustration because I knew there was something wrong but they would never tell me'.

These antecedents are corresponding to those of earlier studies in which also suggested that such elements are the causes of the frequency, type and level of the responses experienced (Evans *et al.*, 2000; Gayman & Crossman, 2003; Gould *et al.*, 1997a).

#### **4.5 Rehabilitation**

The non-elite athletes' responses to their injury have altered dramatically as time progressed from the initial onset. The alteration from negative emotional responses in to more positive responses have been reported in various studies that also identified a greater positive mood from athletes further in to the injury process (Crossman *et al.*, 1995; Pearson & Jones, 1992). The most frequent responses recorded from this particular phase from the non-elite athletes are happiness (n=3), excitement (n=3), confidence (n=3) and frustration (n=3). Mixed emotions have been recorded among the non-elite group during this particular phase due to the numerous stressors and challenges in which they must face to successfully return to competition. This is evident among previous researches (Bianco *et al.*, 1999; Evans *et al.*, 2000) which also believe that it is during this stage of the injury process where a great number of injured individuals will be faced with difficult challenges. This was apparent among a number of the non-elite participants with non-elite athlete 3 describing his feelings of frustration due to watching other athlete's play while he was still in his rehabilitation phase: 'So I did get a lot of frustration seeing other people play and knowing that I'm still just jogging back and forth'.

Tracey (2003) conducted an examination in this field and investigated how the emotions of an injured athlete would respond to being exposed to other athletes competing. Results displayed all non-elite athletes experiencing various negative emotions which consisted of jealousy and depression although in the current study this athlete suffered from frustration while comparing his current situation with competitive athletes.

Positive responses such as happy, excited and confident were also recorded during the rehabilitation phase. In addition Taylor and Taylor (1997) believe that confidence, motivation, anxiety and focus are four psychological factors which are essential for effective rehabilitation and completion of physical and psychological recovery from injury. However, as previously stated the individuals in the non-elite group experienced positive emotions due to various causes and consequences. For example non-elite athlete 5 experienced enhanced levels of confidence during the rehabilitation phase due to the physiotherapist providing support throughout his treatment: 'Ye I was more confident because I had the physio there, he knew, he knew obviously knew what he what he was doing and what's best to do'.

Whereas non-elite athlete 4 experienced feelings of happiness through experiencing progressions during his rehabilitation process thus ultimately enhancing his levels of self-motivation: 'And because I was progressing all the time during my sessions I just felt in general happier'.

Once again these results concur with those of previous findings which suggest that as time progresses through the injury process, negative emotions are diminished and are replaced with greater positive emotions (McDonald & Hardy, 1990). Non-elite athlete 1 experienced entirely the opposite emotional responses while discussing the support he received from the physiotherapist. This individual's responses included 'bored' due to the lack of time and support he received from the physiotherapist along with the repetitive exercises he was provided with, also 'unsafe' as a result of the methods the physiotherapist employed at the rugby club.

'It was like a 15 minute session and it didn't feel that you did enough within that time. They gave you the same exercises to do at home so it was a bit of a waste of time if something... Um, unsafe. As they were trying to bend my finger it just felt like it was going to go again'.

The lack of support received by non-elite athlete 1 may have had a detrimental influence on the success of his to return to competitive sport due to the reduction in self-motivation and adherence to his rehabilitation programme. This theory is parallel to previous findings (Fields *et al.*, 1995) in which revealed that self-motivation is directly related to adherence and failure to adhere to the rehabilitation programme may have a negative impact on the athletes return.

## 4.6 Return

As revealed in table 6, the most frequent emotional responses among the non-elite athlete's during their return to competitive sport included feelings of anxiety (n=5), nervousness (n=5), and worry (n=4). These findings support the research of Crossman (1995) whose results revealed that a higher percentage of athlete's experienced negative emotions such as fear during this phase (return) than during the onset of their injury. In the current study each non-elite athlete suffered from negative emotions as every participant in this group had concerns regarding re-injury. Non-elite athlete 4 was one of the five subjects who experienced negative emotions such as anxiety due to this psychological demand prior to return: 'Yes I was afraid of re-injury, so uh, I did tape up my shoulder'.

The findings during the current study regarding experiencing negative emotions as a consequence of re-injury fears correspond with a number of earlier investigations (Evans *et al.*, 2000; Walker *et al.*, 2004). Attaining pre injury performance levels have also been acknowledged as a stressor which causes negative emotional responses such as worry among the athletes (Carson and Polman, 2008; Podlog and Eklund, 2007; Wadey and Evans, 2011). Non-elite athlete 1 experienced feelings of worry due to concerns regarding his performance levels prior to return and how it may influence his position in the future:

'It was worrying for when you got in to the game as in, were you going to be able to perform at the level as you used to and keep up with the others, and was it going to affect your position for the next game'.

Numerous athlete's experienced mixed emotions due to concerns in relation to attaining pre-injury performance levels during their return to competition, these results concur with those gathered by Podlog and Eklund (2009) who also suggested that achieving pre injury performance levels is a challenging demand while attempting to complete a successful return to sport. Confidence in the injured limb has also become a frequent demand among athletes. Non-elite athlete 3 responded with enhanced levels of nervousness due to this demand which according to Bianco *et al.* (1999) and Cox (2002) also identified this factor as a significant demand prior to return:

'Nervous, really nervous. I was a bit uneasy, anxious especially. Because you had your knee taped up, it was taped up so hard you could barely bend it to start with. So obviously subconsciously I was doing so much more off one leg than the other, so when people told me I was getting a bit worried about it, like I'd over use one and stuff like that'.

Although the most frequent emotions during this particular phase have been primarily negative, athletes did however respond positively towards a number of aspects in relation to their return. For example, non-elite athlete 5 experienced enhanced levels of self-confidence prior to his return due to reassurance from his coach:

'Um, no at the time I met up with my coach before returning to have a little chat and I asked him everything and he told me everything, he told me don't be nervous, you'll be fine... Ye he was a massive factor towards my self-confidence'.

The reassurance this athlete received by his trainer provides evidence of his concern towards the athletes well-being and corresponds with the results of Larson (1986), who proposed that 90% of athletic trainers believes that it is 'relatively important' or 'very important' to ensure an athlete's psychological welfare.

#### **4.7 Elite vs. Non-Elite**

The current investigation has revealed that playing the standards of rugby union players does influence their emotional responses to injury. However, alterations in responses have only been identified in two of the three phases, which were being observed (rehabilitation and return to competitive sport). During the onset phase of the injury, it was discovered that the similarity in emotional responses experienced by both the elite and non-elite athletes were extremely great. Both groups suffered from numerous negative responses throughout this particular phase such as anger, shock and depression. The data recorded reveals that athletes suffer from predominantly negative emotions during the onset of their injury process which is supported by Wiese-Bjornstal *et al.* (1998) study which proposes that a loss directly related to a sporting injury occurs following an appraisal and subsequently develops in to emotions which are repeatedly associated with grief such as depression and

shock. As previously mentioned the responses experienced by each athlete may have been very similar in relation to the stages they were in, however the cause of those particular responses altered amongst the two groups. Demands such as the timing of the injury may trigger negative responses among the elite subjects whereas a lack of income may be the result of negative responses among the non-elite participants.

During the rehabilitation phase similarities and differences were also recorded. Firstly, both elite and non-elite participant's responses altered from negative towards positive emotions as time progressed. Results coincide with earlier literature (Bianco, 2001; Quinn & Fallon, 1999), which also suggested that athletes progressed from a negative to a positive condition throughout rehabilitation. Although both groups did experience positive emotions, the non-elite participants appeared to have suffered from a larger number of negative emotions in comparison to the elite subjects throughout this stage, the most frequent of these being frustration. Recurrent emotions such as encouraged, motivation and happiness were identified among the elite subjects; these positive responses were due to numerous aspects within the rehabilitation environment such as the support they received from the physiotherapists, seeing progressions in their treatment, not experiencing any setbacks and the general atmosphere within the environment. These elements prove to have a significant positive effect on not only the psychological recovery of the athletes but also their physical progression. Although certain non-elite athletes experienced positive responses due to similar circumstances such as the rehabilitation environment, others did not due to a lack of support by the physiotherapist which as a consequence diminished their positive emotions.

It is apparent that while examining the results from the 'return' phase that both elite and non-elite participants experienced mixed emotions during their return to competitive sport. However, it has been established that non-elite athletes most frequently suffered from negative responses such as anxiety, nerves and worry, whereas the elite-subjects mixed emotions such as anxiety, worry, confidence and excitement were regularly experienced. Previous literature (Brewer & Petitpas, 2005; Podlog *et al.*, 2011) suggests that the injured athlete experiences a large variety of complex and diverse responses and demands during this particular phase. However, a large majority of the athletes experienced negative emotions due to similar

demands which included returning to pre-injury performance levels (Podlog & Eklund, 2009), strength of their injured limb and re-injury. Feelings such as anxiety, nerves and worry have been associated with fear of re-injury (most recurrent) among both groups and coincide with previous studies who revealed that fear of re-injury is predominantly the most frequent stressor during the return phase (Evans *et al.*, 2000; Walker *et al.*, 2004). Enhanced levels of self-confidence have predominantly been observed to be experienced by the elite subjects as a consequence of completing fitness/strength tests prior to their return. While only one of the non-elite athletes experienced increased levels of confidence prior to their return. Nonetheless, elite athletes frequently experience greater positive emotions in comparison to their non-elite counterparts due to the completion of fitness/strength tests prior to their return which reassures them of their readiness to return, therefore enhancing levels of self-confidence. The current results respectively disagree with the findings of Smith *et al.* (1990) who proposed that athletes' competing at higher levels were more negative than recreational athletes due to increasing pressure by coaches to return to competition. However, it is apparent that social support makes a significant contribution towards the emotional responses experienced by injured athletes. Results highlighted the alteration in responses among elite and non-elite athletes with the elite subjects experiencing predominantly positive responses during the rehabilitation and return phase as a consequence of receiving greater social support. Studies have revealed that elite athlete's possess high levels of adherence during rehabilitation through investigations in relation to physiotherapist's views of adherence in sport (Niyen, 2007).

**CHAPTER V**  
**CONCLUSION**

## Conclusion

### **5.1 Findings**

The present study explored the emotional responses experienced by rugby union players from two different standards (elite and non-elite) throughout their injury process while specifically examining responses during three individual stages: onset, rehabilitation and return to competition. A sample of 10 male rugby union players participated with each athlete sustaining a moderate to severe injury which occurred in either training or competition. Individual interviews were conducted to collect the desired information following a pilot study to ensure the validity and reliability of the interview guide. Results revealed that the playing standard of rugby union players does influence their emotional responses to injury, although the key finding was that these variations in responses have been observed to significantly alter in two out of the three phases (rehabilitation and return) due to a number of various demands.

During the onset of injury it was apparent that both groups of athletes experienced similar negative emotions which is consistent with earlier studies (Quinn & Fallon, 1999; Sparkes, 1998) who propose that during the 'onset' of injury athletes suffer from a great volume of various emotions including anger and depression. Similar demands and stressors were experienced by each athlete during their initial injury thus similar responses were uncovered.

The rehabilitation phase revealed that both groups of athletes frequently experienced positive emotions throughout out this stage although positive emotions seemed to be persistent among the elite group due to the rehabilitation environment they were exposed to. While non-elite subjects suffered from mixed emotions throughout their recovery due to various demands such as lack of support from the physiotherapist. Negative emotions diminished amongst elite and non-elite participants as time progressed through the rehabilitation phase which is parallel to results gathered by numerous researchers over the years (Bianco, 2001; Crossman *et al.*, 1995; Pearson & Jones, 1992).

With regards to the return to competition phase, it was apparent that while analysing the responses it was discovered that both elite and non-elite athletes experienced positive and negative emotions. However, it has been revealed non-elite athletes' experience negative emotions more frequently than their elite counterparts, whereas the elite subjects regularly experienced mixed emotions. The main finding from this particular phase is that every athlete experienced negative emotions due fear of re-injury which coincide with earlier literature (Evans *et al.*, 2000; Podlog & Eklund, 2007; Walker *et al.*, 2004). Also, elite athletes tend to experience enhanced confidence levels in comparison to the non-elite participants due to completing fitness/strength tests prior to their return.

## **5.2 Strengths & Limitations**

The present study possessed a number of strengths and limitations', firstly employing a qualitative design has been highlighted as a strength due to its ability to allow participants to openly express and describe their emotions regarding their injury experience, while a quantitative analysis would restrict the amount of information and detail provided in answers. Another believed strength would be that all athletes which participated in the present study suffered and recovered from a moderate/severe in the past 12 months, which would limit memory decay, hence a more accurate and reliable description of their emotional responses. While every athlete suffered from a severe injury which restricted their normal functioning/sporting involvement for a minimum of 21 days (Quackenbush and Crossman, 1994), Evans and Hardy (1995) highlighted that this is a sufficient amount of time for an individual to suffer emotional and psychological disturbances.

Limitations comprised of elements such as the employment of a small sample size and only a single data collection. Although while conducting a qualitative analysis a small sample size is desirable, however a small sample size may influence the generalisability and reliability of the results. A further limitation of the current study was the employment of a single data collection to gather the desired information. The accuracy of data and reliability of results would have increased significantly if a number of individual interviews had been conducted at various

stages throughout the injury process i.e. onset through to post return to competition (Johnson and Christensen, 2004).

### **5.3 Applied Implications**

The findings from the present study revealed that both elite and non-elite participants receive limited emotional support, particularly during the onset of the injury where predominantly negative emotions are present. An increase in support received by injured athletes' may be highly beneficial to the recovery outcome through the implementation of psychological interventions which will assist the athletes' through diminishing negative emotional responses at an early stage, thus a successful transition in to the rehabilitation process which will consequently enhance levels of adherence.

### **5.4 Future Research**

A number of questions concerning an athlete's emotional responses to injury still remain unanswered. Future investigations should compare and contrast the psychological demands of injury between males and females competing at regional/international level, while specifically examining emotional responses as well as the stressors/demands which cause these specific emotions due to financial differences between both genders.

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## **APPENDICES**

## **APPENDIX A: INTERVIEW GUIDE**

## Interview Guide

### **Introduction:**

(Not Recorded)

Hello, how are you? I'm Carwyn Thomas from Cardiff Metropolitan University and first of all I'd like to thank you for participating in this interview. As a participant of this current study you are probably aware of the purpose of this investigation, which is to examine whether playing standards of rugby union players influences the emotional responses to injury.

Regarding this interview, I am hoping to develop my understanding and further my knowledge based upon the relationship between playing standard and emotional responses to injury, but also how you as an individual responded emotionally to your injury through various stages. Through achieving this additional information in relation to this area it may help facilitate the rehabilitation process for future injured athletes as well as aid the research of future studies.

Before we go any further I would just like to assure you that all information documented today will be kept confidential throughout its use in my University dissertation, and there are no right or wrong answers. Although particular direct quotations may be used, nevertheless your identity will remain unknown. I will be using a digital recorder to record this interview and confirm that all information gained is accurate. The recordings will only be used to transcribe the interview and yet again remain confidential.

I would also like to inform you that during your participation in this study you have several rights. Firstly, participating in this interview is completely voluntary and that you are free to withdraw from the interview at any time, as well as refuse to answer any questions you do not feel comfortable with. The primary intention of this interview is to learn and gather as much information in relation to your injury process as possible; therefore I would be thankful if you would take a moment during each question to recollect past feelings and/or emotions you experienced during the injury process. It is essential that you know that there are no right or wrong answers and that you be as honest as possible while providing as much detail as you can.

If you are uncertain about any aspect of this interview or any questions please do not hesitate to ask and I will further explain/clarify. The questions in this interview guide relate to the emotional responses you experienced during your injury and the various emotions that arose throughout the stages of recovery. Also you'll have an opportunity to speak freely and add anything you felt was not covered by the interview guide towards the end of this interview.

(Recorded)

Is there anything in relation to this interview that concerns you or do you have any questions you would like to ask? There are numerous sections included in this interview, not all are solely based upon your emotional responses to injury. We will begin by discussing some demographic information regarding your sporting participation and your injury.

**Questions:**

**Demographic:**

- Have you completely recovered from your injury?

*Probe:* If so, how long did it take you to fully return to competitive sport?

*Probe:* If not, what is your current status?

- How long did your injury prevent you from training/competing?
- Before your injury occurred, how committed were you to your sport?

*Probe:* How many hours a week would you spend training or playing?

- Prior to your injury, have you experienced any other injuries?

*Probe:* If so were your experiences similar to your most recent one?

- How important is participating in sport to you?

*Probe:* Has this altered between the time prior to your injury and after your injury?

- After you recovered have your commitments to your sport changed in any way?

*Probe:* If so why and how?

### **Injury Appraisal:**

- In what way did you feel your injury would have an impact on you when it occurred?

*Probe:* Do you feel that possessing an injury was an advantage to you at all? If yes, how?

*Probe:* If not, why did you feel this way?

- During the period of your injury did you experience feelings of concern?

*Probe:* What concerns did you have?

*Probe:* Did you consider your future?

*Probe:* What issues arose in relation to your future?

*Probe:* How did this make you feel?

- During the onset of your injury did you feel that coping with your injury would be demanding?

*Probe:* How did you think you were going to cope?

*Probe:* Did your approach to coping with your injury alter as time progressed, if so why and how?

### **Emotional Responses to Injury:**

I would now like to develop a further understanding in relation to the emotional feelings you experienced through the course of your injury.

- Can you describe to me the emotional responses you experienced when you were injured?

*Probe:* Why did you feel like this?

*Probe:* Were you concerned with anything other than your injury?

- Do you feel that you experienced emotional responses in relation to the stages you were in?
  - E.g. research has proposed that during the onset of injury individuals suffer from a number of negative emotions such as frustration, anger, depression, etc.
- Do you feel that you coped with the injury?

*Probe:* If so, how?

*Probe:* If not, could you further elaborate?

### **Onset of Injury:**

- First of all, could you describe to me how your injury occurred and how you initially felt?

*Probe:* Where did it occur (training/competition)?

*Probe:* Were there any elements that contributed to the cause of your injury?

- How did you manage with your responses after the injury occurred?

*Probe:* What methods did you use?

*Probe:* Was all of your attention and focus primarily based upon your injury?

- Can you describe to me how you felt in relation to the exact moment your injury occurred?

*Probe:* Did you initially think that your injury was as severe as it was when it occurred?

*Probe:* Did you at any time question your future in sport? If so, how did this make you feel?

- One week after your injury did your emotions towards your injury change in any way?

*Probe:* If so, how? Or if not, why do you think this is?

- After your diagnosis, how did this make you feel?

*Probe:* Why do you think you felt this way?

- Were most of your emotions during this stage primarily negative?

*Probe:* What type of emotions did you experience?

*Probe:* Did you feel any positive emotions at this point?

### **Rehabilitation Process:**

- Prior to the beginning of your rehabilitation, how did you feel in relation to your injury?

*Probe:* Did they alter from those you felt during onset?

*Probe:* Why do you think you felt this way?

- What was the atmosphere like during your rehabilitation?

*Probe:* How did this make you feel and why?

- As a whole, do you think the rehabilitation process was successful?

*Probe:* What do you feel was most beneficial from the rehabilitation process?

- Did you encounter any setbacks during your rehabilitation?

*Probe:* If not, did it alter your feelings towards the rehabilitation process, e.g. more positive feelings/thoughts?

*Probe:* If yes, what type of barriers were you faced with?

*Probe:* How did these make you feel?

*Probe:* How did you overcome these barriers?

- Were there any other factors that influenced the way you felt about the rehabilitation process?

*Probe:* If yes, could you describe them to me in more detail?

*Probe:* How did they affect your thoughts and feelings?

*Probe:* Why do you think they had this effect on you?

*Probe:* If not, did this influence the way you felt?

- How did your emotions alter as time progressed?

*Probe:* What were your feelings towards the rehabilitation process?

*Probe:* Did your feelings change once you began to see progression in your treatment (or if you did not see any improvements)?

- While looking back over this particular phase is there anything you feel that you could have done to help facilitate your emotional feelings towards your injury?

*Probe:* If yes, what methods/strategies do you think would have been of assistance?

*Probe:* Why do you think these would have been beneficial?

### **Return to Competitive Sport:**

- During the time nearing to your return to competitive sport how did you feel regarding your injury?

*Probe:* Had your feelings altered during your time in rehabilitation?

*Probe:* Why do you think your feelings had changed?

- Were there any aspects of returning to sport particularly difficult for you? (e.g. fitness levels, strength of injured limb, performance levels)

*Probe:* How did these make you feel?

*Probe:* Did your responses enhance due to these demands?

- Did you have any personal concerns which you hadn't discussed with your physio/coach about returning?

*Probe:* If yes, what type of concerns did you have?

*Probe:* How did you deal with these?

- Do you think that you experienced stronger feelings during this phase than those you experienced during any other phase?

*Probe:* If so, what feelings did you experience?

*Probe:* Why did they make you feel this way?

*Probe:* If not, why do you think this is?

- Had you completed any fitness/strength tests prior to your return?

*Probe:* If yes, did these increase positive thoughts and feelings and why?

*Probe:* If not, how did this make you feel and why?

**Summary:**

- How do you feel the interview went?
  
- Are there any areas that you would like to add to, or feel that we didn't cover a specific topic?

**Conclusion:**

I think all of the questions in relation to your injury have been covered. Would you like to ask any additional questions or add any comments regarding the interview or its contents? Also is there anything which has not been covered during this interview which you would like to discuss? This process now involves me listening to the recorded interview to accurately transcribe the information which will be later documented. I will then send you a copy of the interview and if it is not too much trouble would it be possible for you to read through it to make sure that it is accurate and reflects how you responded emotionally to your injury? While reading it please feel free to add any additional information or remove anything you feel isn't a correct reflection of the information you gave.

I would just like to finish by saying thank you very much in conducting this interview, it is very much appreciated and I am confident that you have produced some interesting data which will assist me during the completion of my dissertation.

## **APPENDIX B: TRANSCRIPTION OF INTERVIEW**

## **Transcription**

### **Key:**

C: Interviewer

J: Interviewee

Participant #: 3

Playing level: Elite

Injury: Synovitis Knee Capsule

Age: 24

Date: 29/12/2013

Start time: 19:45

Finish time: 20:12

**C:** Is there anything in relation to this interview that concerns you or do you have any questions you would like to ask?

**Participant:** No.

**C:** There are numerous sections included in this interview, not all are solely based upon your emotional responses to injury. We will begin by discussing some demographic information regarding your sporting participation and your injury.

**C:** Have you completely recovered from your injury?

**J:** Yes

**C:** If so, how long did it take you to fully return to competitive sport?

**J:** It was 2 months.

**C:** How long did your injury prevent you from training/competing?

**J:** Again 2 months.

**C:** Before your injury occurred, how committed were you to your sport?

**J:** Very committed

**C:** How many hours a week would you spend training and playing?

**J:** Train five days a week, Tuesday's and Thursday's would be full days so six hours. So around 15-16 hours.

**C:** Prior to your previous/current injury, have you experienced any other injuries?

**J:** Yes.

**C:** If so were your experiences similar to your most recent one?

**J:** No.

**C:** How important is participating in sport to you?

**J:** Very important.

**C:** Has this altered between the time prior to your injury and after your injury?

**J:** No.

**C:** After you recovered have your commitments to your sport changed in any way?

**J:** No.

**C:** In what way did you feel your injury would have an impact on you when it occurred?

**J:** Um, it would leave me out of the game for a while. Devastated.

**C:** Do you feel that possessing an injury was an advantage to you at all? If yes, how?

**J:** Yes.

**C:** Could you further clarify?

**J:** Because the time you're out of the game from the more you want, the more you want to come back.

**C:** So increased your motivation?

**J:** Yes.

**C:** During the period of your injury did you experience feelings of concern?

**J:** At the start because it something you have experienced before, well I have. Every injury is different so then you don't know the extent of the injury. But then once you get the diagnosis of what it is you can start to move on then.

**C:** Did you consider your future?

**J:** Yes.

**C:** What issues arose in relation to your future?

**J:** If the injury was um, long term or short term. If it was long term how long would I be out of the game for or etc

**C:** How did this make you feel?

**J:** Um, ye it concerned me a bit.

**C:** During the onset of your injury did you feel that coping with your injury would be demanding?

**J:** Ye.

**C:** How did you think you were going to cope?

**J:** Um, friends and family.

**C:** So through social support?

**J:** Yes. Physios.

**C:** Did your approach to coping with your injury alter as time progressed, if so why and how?

**J:** Ye. Um, ye it got better. You get used to it. Because at the start it something you don't want to happen but it has happened so you accept and just move on.

**C:** I would now like to develop a further understanding in relation to the emotional feelings you experienced through the course of your injury. Can you describe to me

the emotional responses you experienced when you were injured? I.e. from onset through to return.

**J:** Um, at the start because it came as a bit of shock because it came out of nowhere I was angry. Then you get to just... Like I said you deal with it and you've got to move on and be positive and optimistic, and you've got to be motivated to get back on that field as soon as you can.

**C:** So you went from a negative to a positive?

**J:** Ye.

**C:** Were you concerned with anything other than your injury?

**J:** No.

**C:** Do you feel that you experienced emotional responses in relation to the stages you were in? For example research has proposed that during the onset of injury individuals suffer from a number of negative emotions such as frustration, anger, depression, etc.

**J:** Ye. It was negative because before your injury you're in a good place and that just knocks you for six when you get injured. You are frustrated and depressed at the start.

**C:** Do you feel that you coped with the injury?

**J:** Ye, yes.

**C:** If so, how?

**J:** Because with the environment I'm in I've got physios left, right and centre so it kept me motivated and you know there was a progression every time I went to see them so it wasn't as if I was getting knocked back.

**C:** So you weren't getting bored of doing the same exercises?

**J:** No, no.

**C:** Now I'd just like to discuss the onset of your injury.

**C:** First of all, could you describe to me how your injury occurred and how you initially felt?

**J:** Um, it was, it was just normal straight line running. Ye, um, I've got tendonitis in my knee and uh we were just warming up before a trial game and um all of a sudden it felt like something was catching in my knee, and uh, I knew straight away that something wasn't right. It wasn't my tendonitis because I can deal with my tendonitis that's fine, but it was something that wasn't allowing me to run and I had to pull out immediately.

**C:** How did you manage with your responses after the injury occurred?

**J:** Not good.

**C:** What methods did you use?

**J:** Um, at the initial point it was um, it was getting ready for a competition so I knew straight away that I wouldn't be playing in that competition so I was angry, um, to start with but there is, there was rugby after those two tournaments, it wasn't the end of the world so you know I got over the fact that I missed the next two tournaments. Look beyond them.

**C:** Can you describe to me how you felt in relation to the exact moment your injury occurred?

**J:** I was in denial. Like I said at the start I knew exactly it wasn't my tendonitis and I knew straight away it would put me out of the game because I couldn't run so I knew something wasn't right. Um, so it was anger and frustration, definitely angry.

**C:** Did you initially think that your injury was as severe as it was when it occurred?

**J:** Ye, I knew it wasn't right.

**C:** One week after your injury did your emotions towards your injury change in any way?

**J:** It changed, because I, because I got over the fact that I wouldn't be in those two tournaments so I accepted it and I was just on the rehab then, on the road to recovery.

**C:** After your diagnosis, how did this make you feel?

**J:** Um, happy kind of, well not happy... Relieved. Because I knew then what it was and how long it would put me out of the game and what I needed to do to get it better.

**C:** Were most of your emotions during this stage primarily negative?

**J:** The first week?

**C:** No throughout the onset.

**J:** Primarily negative ye.

**C:** Did you feel any positive emotions at this point?

**J:** Not that much.

**C:** I'd like to move on to discuss your rehabilitation process. Prior to the beginning of your rehabilitation, how did you feel in relation to your injury?

**J:** Um, I was excited because I knew I was getting better, I was getting somewhere.

**C:** What was the atmosphere/environment like during your rehabilitation?

**J:** It was positive because the physios want you back on that pitch as soon as you can, as soon as they can. You know everything was positive from that moment on and I was excited to go in and progress my rehabilitation.

**C:** As a whole, do you think the rehabilitation process was successful?

**J:** Yes.

**C:** What do you feel was most beneficial from the rehabilitation process?

**J:** Um, key individual exercises regarding injury.

**C:** Did you encounter any setbacks during your rehabilitation?

**J:** No.

**C:** If not, did it alter your feelings towards the rehabilitation process, e.g. more positive feelings/thoughts?

**J:** Yes.

**C:** Were there any other factors that influenced the way you felt about the rehabilitation process? E.g. Exercises, physio, time-consuming

**J:** Well um, for that injury ye. Because the exercises were focused around that injury. And obviously the physio, there's no point having a bad physio, if you have a bad physio you might not get as far in the rehabilitation process as you want.

**C:** How did they affect your thoughts and feelings?

**J:** You could see that they were committed to you so that made you work harder. Because it is basically with the physio you are one on one so all of their time is on you, it wasn't like coaching 15 people it was one on one, more focused on you.

**C:** How did your emotions alter as time progressed?

**J:** More positive, definitely more positive. As time progressed you could see the end and I was definitely excited because I was going to get back in to rugby straight away, well not straight away but at the end of the rehabilitation process.

**C:** What were your feelings towards the rehabilitation process?

**J:** Um, satisfied.

**C:** Did your feelings change once you began to see progression in your treatment or if you did not see any improvements?

**J:** Ye.

**C:** While looking back over this particular phase is there anything you feel that you could have done to help facilitate your emotional feelings towards your injury?

**J:** Um, you know because you are one on one with the physio you do talk a lot about it so, you do let out your feelings to the physio.

**C:** Did you find that beneficial?

**J:** Um, ye because he can see then how hard you're working. If I was feeling say negative and down and all that, he would turn around and make you think of the

positives so then that out me in the mind-set of oh it's not doom and gloom after all. There's always positive thoughts and feelings coming back from the physio.

**C:** If you were feeling stressed would he cool you down and make you feel relaxed?

**J:** Ye he'd say take five and we'll come back to it. If I was getting angry and annoyed at something I couldn't do he'd say you know, take 5 come back and we'll do it again.

**C:** Finally I'd like to discuss your return to competitive sport. During the time nearing to your return to competitive sport how did you feel regarding your injury?

**J:** Nervous, anxious, tense.

**C:** Had your feelings altered during your time in rehabilitation?

**J:** Yes.

**C:** Why do you think your feelings had changed?

**J:** Because you're going back in to the environment that you love but you have in your mind that injury, you've had that injury. I was concerned.

**C:** What were you concerned about?

**J:** I was concerned about how my injury would cope. Obviously I was having full rehabilitation but there still is that psychological feeling in the back of your mind. But after a day, two days, it's gone. You forget about it and you're back in the environment.

**C:** Were there any aspects of returning to sport particularly difficult for you? For example fitness levels, strength of injured limb, performance levels?

**J:** Ye the difficult part was, well I wouldn't say the strength of the injury, it was the assurance that it was ok. But before returning you have, you have like, the physio and myself would go through my fitness levels and say like, say my rehabilitation programme was 7 weeks, with me and the physio would be 8 weeks because that last week I'd be put through my fitness levels and to get back, and build it back up so I'm not going straight back in to the environment straight from my rehabilitation. So there was a week leading up to where I should be.

**C:** Did your responses enhance due to these demands?

**J:** Ye. After injury you know because I've had quite a few injuries going back in to the environment you are um, anxious. But then I, I think that's just a part of you.

**C:** Did you have any personal concerns which you hadn't discussed with your physio/coach about returning?

**J:** No. Everything was out on the table.

**C:** Do you think that you experienced stronger feelings during this phase than those you experienced during any other phase?

**J:** Yes.

**C:** If yes, did these increase positive thoughts and feelings and why?

**J:** Yes. Because I knew then I'd be able to manage and cope with it. Because coming back from the injury I knew then after completing those tests I was back to where I used to be and they increased my self-confidence.

**C:** I think we've covered everything. How do you feel the interview went?

**J:** Good.

**C:** Are there any areas that you would like to add to, or feel that we didn't cover a specific topic?

**J:** No.

**C:** I think all of the questions in relation to your injury have been covered. Would you like to ask any additional questions or add any comments regarding the interview or its contents?

**Participant:** No.

**C:** Also is there anything which has not been covered during this interview which you would like to discuss?

**Participant:** No.

**C:** This process now involves me listening to the recorded interview to accurately transcribe the information which will be later documented. I will then send you a copy of the interview and if it is not too much trouble would it be possible for you to read through it to make sure that it is accurate and reflects how you responded emotionally to your injury. While reading it please feel free to add any additional information or remove anything you feel isn't a correct reflection of the information you gave.

**C:** I would just like to finish by saying thank you very much in conducting this interview, it is very much appreciated and I am confident that you have produced some interesting data which will assist me during the completion of my dissertation.

## **APPENDIX C: PARTICIPANT INFORMATION SHEET**

## **Participation Information Form**

### **Title of Project: An Investigation into Whether Playing Standards of Rugby Union Players Influences Their Emotional Responses to Injury**

#### **Background**

Experiencing a sporting injury can be a tremendously stressful experience for an athlete, not only physically but psychologically. Research has proposed that an injured athlete suffers from a number of various negative emotions during the onset such as depression, anger and shock. Whereas during both the rehabilitation and return to competitive sport phase; it has been suggested that both positive and negative responses are frequently experienced with negative emotions regularly diminishing as time progresses throughout rehabilitation. This study is attempting to discover whether the playing standard of rugby union players has an influence on their emotional responses to injury, while specifically observing three stages: onset of injury, rehabilitation, and return to competitive sport.

#### **Your Participation in the Research Project:**

##### **Why Have You Been Asked?**

You have been approached to participate in this investigation because you have in the past year sustained a moderate to severe injury, completed the rehabilitation process which was required and made the return to competitive

##### **What Would Happen If You Agree**

If you agree to participate in this study you will be sent the interview guide which will be used during the interviews so that you become familiar with the questions. Interviews will then be conducted at a time and location of your choice with myself leading the interview and asking questions in relation to your injury with specific detail to the onset of your injury, rehabilitation process and your return to competitive sport. The interview will be recorded by using a recorded device on my mobile phone which will later be transcribed verbatim. You will later receive a copy of the transcription to ensure that all information and responses provided by you the participant are accurate and correct. However, feel free to make any amendments to the transcription if you feel that the information is not an accurate reflection of your

injury experience. The information will then later be used during the completion of my dissertation.

### **Are There Any Risks?**

I do not think there are any risks from participating in this study.

### **Your Rights**

All information gathered from this study will remain confidential along with your identity and this study is completely voluntary, feel free to withdraw from this investigation at any time.

### **What Happens To The Results Of The Study?**

The information gathered from your interview will be used during the results and discussion section within my dissertation with your identity being kept confidential.

### **What Happens Next?**

Along with this participation information sheet you will receive a consent form. The consent form requires you to complete a number of steps such as reading the participants information sheet and ask questions regarding the study, knowing that you are able to withdraw from the study at any time, all results gathered will be documented but your identity will be kept anonymous, and that you agree to these terms before beginning the project.

### **How We Protect Your Privacy**

The information gathered from the interviews will not be seen by anyone apart from the researcher and the supervisor (Dr Ian Mitchell) if need be, and all information given to us by you the participant will be kept confidential by keeping your identity anonymous.

### **Further Information**

If you have any questions regarding the study or the research please do not hesitate to contact me:

## **APPENDIX D: PARTICIPANT CONSENT FORM**

Carwyn Thomas

07816387220

[st20001845@cardiffmet.ac.uk](mailto:st20001845@cardiffmet.ac.uk)

### UWIC PARTICIPANT CONSENT FORM

**Title of Project:** An investigation into whether playing standard of rugby union players influences their emotional responses to injury.

**Name of Researcher:** Carwyn Thomas

Participant to complete this section:      Please tick each box.

- I confirm that I have received an information sheet regarding the study, had the opportunity to thoroughly read through it and had the opportunity to ask questions based on my participation.
- I am aware that I am able to withdraw from the study at any time and
- I am in full control of my participation within the research.
- I understand that the results gathered from the study will be documented and reported.
- I understand that my identity will remain anonymous in any written documentation that informs the research and its findings.

I agree to take part in this study

Name: \_\_\_\_\_

Date: \_\_\_\_\_

By signing your name below you are confirming you will participate in the study.

Signature of Participant: \_\_\_\_\_

## **APPENDIX E: ETHICS STATUS**



Cardiff  
Metropolitan  
University

Prifysgol  
Metropolitan  
Caerdydd

Date: March 2014.

To: Carwyn,

Project reference number: 13/05/364U

Your project was recommended for approval by myself as supervisor and formally approved at the Cardiff School of Sport Research Ethics Committee meeting of [include the one that applies 29th May 2013, 26th June 2013, 24th July 2013, 16th October 2013, 27th November 2013].

Yours sincerely

*Ian Mitchell*

Supervisor

## **APPENDIX F: MATRIXES**

**Participant 1:**

|                            | <u>Cause/s</u>  | <u>Cause/s</u>                                     | <u>Cause/s</u>  |
|----------------------------|---|--|---|
| <b>Emotional Responses</b> | <b>Onset</b>  | <b>Rehabilitation</b>                              | <b>Return</b>   |
| Anxious                    | <p>Response to exact moment injury occurred.</p> <p>Didn't think he'd play at that level again.</p> | Feelings towards the rehabilitation process.       | <p>Feelings towards injury prior returning to sport.</p> <p>Thinking about skill/fitness levels.</p> <p>Enhanced feelings of anxiety due to these demands.</p> <p>Anxious all through the 9months (whether he'd play again)</p> |
| Worried                    | Questioned his future in sport.   | Worried seeing other players taking their chances. | <p>Performance levels.</p> <p>Re-injury</p>   |

|           |  |  |  |
|-----------|--|--|--|
|           | <p>Didn't think he'd play at that level again.</p> <p>He'll never comeback from the injury</p> | Encountering setbacks.   |  |
| Denial    | Response to exact moment of injury.  |  |  |
| Depressed | <p>Questioning his future in sport.</p> <p>Lack of progress early on</p>                       | <p>Unable to play and feeling sorry for himself.</p> <p>Encountering setbacks.</p> |  |
| Uneasy    | Questioning future in sport.   |  |  |
| Helpless  | <p>Didn't think he'd play at that level again.</p> <p>Lack of progress early on</p>            |  |  |

|            |  |   |   |
|------------|--|---|---|
|            |  |   |   |
| Optimistic |  | Throughout the rehabilitation process<br><br>Reassurance from the medical staff.                                    |   |
| Excited    |  | Excited to start the rehabilitation process.<br><br>Feelings towards the rehabilitation process as time progressed. | Feelings towards injury prior returning to sport.<br><br>To get back on the pitch.<br><br>Getting through the first game back |
| Motivated  |  | Positive rehabilitation environment.  |   |
| Relaxed    |  | Feelings towards the rehabilitation process as time progressed/receiving the appropriate care.                      |   |

|             |  |   |  |
|-------------|--|---|--|
| Happy       |  | Seeing progressions during the rehabilitation process.  |  |
| Encouraged  |  | Receiving positive encouragement from physio's also exercise weren't repetitive which encouraged him even more. | Encouragement through his teammates and family/friends   |
| Confident   |  |   | Returning to training and to the environment.<br><br>Completing fitness tests and achieving better scores than he did prior to his injury. |
| Frightened  |  |   | Re-injury.   |
| Comfortable |  |   | To get back on the pitch.  |
| Nervous     |  |   | Re-injury<br><br>Performance levels  |

|                    |                                      |                                 |                                     |
|--------------------|--------------------------------------|---------------------------------|-------------------------------------|
| Scared             | He'll never comeback from the injury |                                 | Re-injury<br><br>Performance levels |
| Frustrated         | Lack of progress early on            |                                 |                                     |
| Thrilled           |                                      |                                 | Getting through the first game back |
| Loss of confidence |                                      | Socially felt low in confidence |                                     |

**Participant 2:**

|                            | <u>Cause/s</u>  | <u>Cause/s</u>  | <u>Cause/s</u>   |
|----------------------------|---|---|--|
| <b>Emotional Responses</b> | <b>Onset</b>  | <b>Rehabilitation</b>   | <b>Return</b>  |
| Anxious                    | Anxious about the future<br><br>How long would it be until he recovered |   | Hadn't taken any impact on injured thumb prior to first game back<br><br>Strength of the thumb<br><br>Performance levels |
| Worried                    | Being told that his injury required surgery                             | Did not feel comfortable with the environment during the rehabilitation process | Did not perform and strength test prior to return  |
| Depressed                  | Feelings after diagnosis<br><br>Unable to play rugby and unable         |   | Strength of the thumb<br><br>Performance levels  |

|          |  |   |  |
|----------|--|---|--|
|          | <p>to work</p> <p>Lack of income due to unable to work</p> |   |  |
| Annoyed  | Exact moment injury occurred                               | <p>Did not feel that the rehabilitation was successful.</p> <p>Operation was not successful.</p> <p>Lack of support/time provided by physio/s</p> <p>Repetitive exercises</p> |  |
| Angry    | Angry at himself for letting himself get injured           |   |  |
| Confused | Exact moment injury occurred                               |   |  |

|             |  |   |  |
|-------------|--|---|--|
| Bored       |  | Exercises were very repetitive which resulted in him not doing them                       |  |
| Relaxed     |  | Got used to the injury  |  |
| Frustrated  | Exact moment injury occurred   | Did not feel that the rehabilitation was successful.<br><br>Operation was not successful. |  |
| Concern     | Would it heal correctly<br><br>How long until he could get back to work<br><br>Loss of work was main concern |   |  |
| Uncertainty | Feelings regarding the   | Feelings towards injury prior to  |  |

|            |       |  |  |
|------------|-------|--|--|
|            | onset | beginning<br>rehabilitation (no<br>movement/still<br>painful)                        |  |
| Confident  |       | Response to injury<br>as time progressed.<br><br>Got used to the<br>injury           |  |
| Optimistic |       | Didn't have any<br>setbacks<br><br>Could see himself<br>progressing every<br>session |  |
| Unsafe     |       |  | Feelings towards<br>injury prior to return         |
| Nervous    |       |  | Strength of the<br>thumb<br><br>Performance levels |

|          |   |  |  |
|----------|---|--|--|
|          |   |  |  |
| Afraid   | Being told that his injury required surgery |  |  |
| Insecure | About the injury and the recovery process   |  |  |

**Participant 3:**

|                            | <u>Cause/s</u>  | <u>Cause/s</u>  | <u>Cause/s</u>   |
|----------------------------|---|---|--|
| <b>Emotional Responses</b> | <b>Onset</b>  | <b>Rehabilitation</b>   | <b>Return</b>  |
| Anxious                    | Worried about the unknown (response prior to diagnosis)                                   | Slightly anxious prior to beginning.<br>Thinking about how long you'll be in rehabilitation for | Re-injury<br><br>Performance levels<br><br>Getting previous speed back |
| Worried                    | Initial response to injury<br><br>Worried about the unknown (response prior to diagnosis) |   | Re-injury  |
| Shock                      | Initial response to injury  |   |  |

|          |  |  |  |
|----------|--|--|--|
| Relieved | Response post diagnosis<br><br>Injury wasn't as bad as first thought |  | Completing his first session back  |
| Happy    |  | Progressed well<br><br>Didn't experience any set backs<br><br>Achieved his own and the physio's goals<br><br>Saw improvements<br><br>Feelings towards the rehabilitation process |  |
| Excited  |  |  | Returning to the competitive environment and train with the rest of the team |

|            |  |  |   |
|------------|--|--|---|
|            |  |  |   |
| Motivated  | <p>Motivated towards rehabilitation process</p> <p>Realised the injury wasn't too serious so motivated to begin the recovery process</p> | Again motivated to begin rehabilitation so he could get back |   |
| Concerned  | <p>Missing game time</p> <p>Losing his position</p>  |  | <p>Performance levels</p> <p>Re-injury</p> <p>Getting previous speed back</p> |
| Annoyed    | About the situation  |  |   |
| Encouraged |  | Seeing progressions in his treatment                         |   |
| Confident  |  |  | Completing fitness tests prior to return                                      |

|            |   |  |  |
|------------|---|--|--|
|            |   |  |  |
| Frustrated | About the whole situation                               |  |  |
| Nervous    | Worried about the unknown (response prior to diagnosis) |  |  |
| Depressed  | Waiting for diagnosis                                   |  |  |
| Uncertain  | Waiting for diagnosis                                   |  |  |
| Determined |   | To return to sport as soon as possible |  |

**Participant 4:**

|                            | <u>Cause/s</u>   | <u>Cause/s</u>        | <u>Cause/s</u>  |
|----------------------------|--|-----------------------|---|
| <b>Emotional Responses</b> | <b>Onset</b>   | <b>Rehabilitation</b> | <b>Return</b>   |
| Anxious                    |  |                       | Thinking about what could happen during his return e.g. re-injury |
| Worried                    |  |                       | Returned to sport sooner than the doctor advised                  |
| Gutted                     | Initial response to injury<br><br>Finding out severity of injury after diagnosis |                       |   |
| Denial                     | Didn't think injury was as severe as it was                                      |                       |   |

|             |   |  |   |
|-------------|---|--|---|
|             |   |  |   |
| Nervous     |   |  | <p>Nerves increased prior to games 2-3 weeks after injury</p> <p>Doesn't want to leave his teammates down</p> <p>Performance levels</p> |
| Frustration | <p>Frustrated about the situation</p> <p>Unable to work</p> <p>Lack of income</p> | Frustrated about the rehabilitation environment/being told to rest |   |
| Calm        |   | Pain of the injury was beginning to disappear                      |   |
| Happy       |   | Not encountering any setbacks                                      |   |

|                   |   |  |   |
|-------------------|---|--|---|
|                   |   | Happier as time progressed<br><br>Seeing progressions in his treatment |   |
| Angry             | Because he was playing well prior to the injury         |  |   |
| Loss of Confident |   |  | Fitness levels<br><br>Execution of skills<br><br>Performance levels |
| Annoyed           | Annoyed that it happened at the beginning of the season |  |   |
| Excited           |   | Excited to get back on the pitch                                       |   |
| Concerned         | Unaware of the  |  |   |

|              |   |                         |  |
|--------------|---|-------------------------|--|
|              | amount of time<br>he would have to<br>be out for                |                         |  |
| Disappointed | Debating on<br>whether to take<br>the rest of the<br>season off |                         |  |
| Distraught   | Performing well<br>prior to injury                              |                         |  |
| Eager        |   | Eager to return to play |  |
| Afraid       | Unaware of<br>severity of injury                                |                         |  |

**Participant 5:**

|                            | <u>Cause/s</u>             | <u>Cause/s</u>  | <u>Cause/s</u>   |
|----------------------------|----------------------------|---|--|
| <b>Emotional Responses</b> | <b>Onset</b>               | <b>Rehabilitation</b>   | <b>Return</b>  |
| Anxious                    |                            | <p>Didn't know how long it would take</p> <p>Unaware of how weak his shoulder got</p> | <p>Re-injury</p> <p>Performance levels</p>   |
| Worried                    | Worried about the severity |   | Worried about making his first tackle  |
| Unsafe                     |                            |   | <p>Re-injury</p> <p>Thinking is each tackle going to be painful on my shoulder</p> |
| Down                       | Automatically              |   |  |

|           |  |                                |   |
|-----------|--|--------------------------------|---|
|           | thinking his injury was more severe than what it was     |                                |   |
| Irritated |  |                                | Shoulder didn't regain the strength I had prior to the injury   |
| Relieved  | After receiving diagnosis                                |                                |   |
| Depressed | Unable to do simple tasks on the farm i.e. lift a bucket |                                |   |
| Angry     |  |                                | Inconvenience of return i.e. big games coming up and didn't have much game time leading up to the big games |
| Motivated |  | Not experiencing any setbacks. |   |

|                |  |  |  |
|----------------|--|--|--|
| Frustrated     | <p>Wanted to return sooner rather than later</p> <p>Unable to perform simple tasks</p> | <p>Wanted to return sooner than what the physio/s advised him to</p> <p>Unable to train with the rest of the team</p>                        | <p>Second guessing himself in relation to the strength of the injured limb</p> <p>Performance levels</p> |
| Happy          |  | <p>Seeing progressions during his treatment</p> <p>Rehabilitation environment</p> <p>The result the rehabilitation has had on his injury</p> |  |
| Encouraged     |  | <p>Physiotherapist's keeping him positive</p> <p>Physio's reassuring him</p>   |  |
| Disappointment | <p>The timing of the injury (LV cup</p>  |  |  |

|           |                               |  |  |
|-----------|-------------------------------|--|--|
|           | games coming up)              |  |  |
| Angry     | Regarding the whole situation |  |  |
| Doubt     |                               |  | Re-injury<br><br>How the injury would cope/perform   |
| Concern   | Was told he may need surgery  |  |  |
| Uncertain |                               |  | How his shoulder would cope in the first tackle back |

**Participant 6:**

|                            | <u>Cause/s</u>   | <u>Cause/s</u>        | <u>Cause/s</u>   |
|----------------------------|--|-----------------------|--|
| <b>Emotional Responses</b> | <b>Onset</b>   | <b>Rehabilitation</b> | <b>Return</b>  |
| Anxious                    |  |                       | <p>Prior to first game back</p> <p>Knee was taped up so much could barely bend it</p> <p>Would get more anxious in certain areas/situations on the pitch</p> |
| Worried                    | <p>Worried about upcoming 7's tournament</p> <p>Worried about the severity</p> |                       | <p>Re-injury</p> <p>How injured limb would cope</p>  |

|            |   |  |   |
|------------|---|--|---|
|            |   |  | Would get more anxious in certain areas/situations on the pitch |
| Excited    |   | To begin the rehabilitation process  |   |
| Annoyed    | Inaccurate diagnosis from doctors                                       | Experiencing setbacks  |   |
| Frustrated | Inaccurate diagnosis from doctors<br><br>Frustrated about the situation | Time-consuming<br><br>Seeing other people play<br><br>Realised how much of an impact the injury has had on his knee<br><br>Experiencing setbacks |   |

|           |  |                         |   |
|-----------|--|-------------------------|---|
|           |  |                         |   |
| Nervous   |  |                         | <p>Prior to first game back</p> <p>Knee was taped up so much could barely bend it</p> |
| Motivated |  | Meeting with the physio |   |
| Angry     | Receiving an incorrect diagnosis from the doctor           |                         |   |
| Happy     | To receive the correct information regarding his diagnosis |                         |   |
| Relieved  | To receive the correct information regarding his diagnosis |                         |   |

|              |                             |                                     |   |
|--------------|-----------------------------|-------------------------------------|---|
|              |                             |                                     |   |
| Apprehensive |                             |                                     | How injured limb would cope   |
| Uneasy       |                             |                                     | Prior to first game back<br><br>Knee was taped up so much could barely bend it  |
| Doubtful     | Worried about the severity  |                                     |   |
| Uncertain    | Worried about the severity  |                                     |   |
| Upset        | Questioning future in sport |                                     | Lost speed which he felt was one of his main aspects  |
| Discouraged  |                             | How much weaker his knee had gotten | Did not complete an official test but did test himself i.e. how fast he could run 2miles and due to such poor results negative feelings |

|              |  |   |   |
|--------------|--|---|---|
|              |  |   | increased   |
| Insecure     |  |   | Did not complete an official test but did test himself i.e. how fast he could run 2miles and due to such poor results negative feelings increased |
| Enthusiastic |  | Seeing progressions while in the rehabilitation phase |   |

**Participant 7:**

|                            | <u>Cause/s</u>   | <u>Cause/s</u>  | <u>Cause/s</u>  |
|----------------------------|--|---|---|
| <b>Emotional Responses</b> | <b>Onset</b>   | <b>Rehabilitation</b>   | <b>Return</b>   |
| Anxious                    | <p>Unaware of the severity</p> <p>Unaware of how long he would be out for</p> <p>Would I be able to work</p> | <p>Never needed rehabilitation before/Unaware of what to expect</p> <p>How soon he would see progressions</p> <p>Wanted to get back playing</p> | <p>Re-injury</p> <p>Anxious regarding the demands of returning to sport e.g. strength levels, physicality, fitness levels</p> |
| Worried                    | <p>About the injury</p> <p>How he was going to drive home from the game</p>                                  | <p>How long rehabilitation process would take</p>   |   |
| Nervous                    | Unaware of the   | Never needed  | Re-injury   |

|          |  |  |   |
|----------|--|--|---|
|          | severity   | rehabilitation<br>before/Unaware of what<br>to expect<br><br>How soon he would see<br>progressions | Returned to<br>training<br><br>Nervous of how<br>shoulder will cope<br><br>How teammates<br>will respond to his<br>return<br><br>Did not complete<br>any<br>fitness/strength<br>tests |
| Angry    | Angry about<br>getting injured<br><br>Allowing myself<br>get in to that<br>situation |  |   |
| Confused | Unaware of the<br>severity   |  |   |

|            |  |   |  |
|------------|--|---|--|
|            | The time it would take to recover                |   |  |
| Encouraged |  | Rehabilitation atmosphere/environment<br><br>Physio's were supportive   |  |
| Motivated  |  | Physio's providing motivation through explaining that he won't be back to where he was unless he puts the work in |  |
| Calm       | Physio completing initial assessment of shoulder |   |  |
| Happy      |  | Could see improvements<br><br>Physio's were supportive  |  |
| Relieved   | Knowing that injury wasn't                       |   |  |

|           |  |  |   |
|-----------|--|--|---|
|           | <p>severe as first thought</p> <p>Injury didn't affect his work as much as he thought</p> <p>After diagnosis, found out it wasn't broken or dislocated</p> |  |   |
| Confident |  | <p>Support provided by physio's regarding injury</p> <p>Confident in the physio's ability</p> <p>Attending rehab</p> |   |
| Afraid    | <p>Wouldn't be able to work/effect his work</p>  |  | <p>Afraid of how shoulder would cope</p> <p>Re-injury</p> |

|           |                             |                     |                                   |
|-----------|-----------------------------|---------------------|-----------------------------------|
| Excited   |                             | Seeing progressions | To see how he'd adapt and perform |
| Depressed | The way the injury occurred |                     |                                   |

**Participant 8:**

|                            | <u>Cause/s</u>                                   | <u>Cause/s</u>   | <u>Cause/s</u>  |
|----------------------------|--|--|---|
| <b>Emotional Responses</b> | <b>Onset</b>                                     | <b>Rehabilitation</b>  | <b>Return</b>   |
| Anxious                    |  |  | Performance levels  |
| Worried                    | About losing his position in the team            |  | Performance levels<br><br>Re-injury<br><br>Strength of injury |
| Motivated                  | To begin the rehabilitation process              | Rehabilitation atmosphere/environment<br><br>Physio's were very supportive |   |
| Frustrated                 | Getting an injury at that certain time (a lot of | Lower limb testing scores had dropped                                      |   |

|            |   |  |   |
|------------|---|--|---|
|            | <p>games on)</p> <p>Didn't want to lose game time because there was a lot of competition for positions</p> <p>Injury took longer to heal than first initially thought</p> | <p>Had access to a sport psychologist whenever he would get frustrated regarding the rehabilitation process or personal concerns</p> |   |
| Depressed  | <p>Getting an injury at that particular time in the season</p>  |  |   |
| Relieved   | <p>Discovering that injury wasn't as severe as initially thought</p>  |  |   |
| Acceptance |   | <p>Accepted that his lower limb testing would be as good as it used to be prior to the injury</p>                                    | <p>Knew that fitness levels weren't going to be 100% as unable to do much running</p> |

|         |                                 |   |  |
|---------|---------------------------------|---|--|
|         |                                 |   |  |
| Gutted  | Wanted to be playing every week |   |  |
| Happy   |                                 | Happy to do extra rehab on his own to speed up the recovery process | Was able to play in friendlies for first few games   |
| Nervous |                                 |   | How injury would cope  |
| Excited |                                 | The rehabilitation process was coming to an end                     | Being back in the environment with the rest of the team<br><br>Back playing on the field<br><br>Put himself up for selection again<br><br>Get back playing |

|            |  |  |  |
|------------|--|--|--|
| Eager      |  | Pushed me to work harder through the rehabilitation process            | Put himself up for selection again<br><br>Get back playing |
| Encouraged |  | Seeing progressions in his treatment and getting the results he wanted |  |
| Secure     |  |  | Completing strength/fitness tests prior to return          |

**Participant 9:**

|                            | <u>Cause/s</u>  | <u>Cause/s</u>        | <u>Cause/s</u>  |
|----------------------------|---|-----------------------|---|
| <b>Emotional Responses</b> | <b>Onset</b>  | <b>Rehabilitation</b> | <b>Return</b>   |
| Anxious                    |   |                       | <p>Feelings towards his injury prior to return</p> <p>Strength of injured limb</p> <p>Re-injury</p> |
| Worried                    | <p>The severity of the injury</p> <p>How long he would be out for</p> |                       | How his injury would cope   |
| Denial                     | Unable to accept that he got injured at this time (warming up         |                       |   |

|            |  |   |   |
|------------|--|---|---|
|            | before tournament)   |   |   |
| Excited    |  | Could see the end of the rehabilitation process and excited to return |   |
| Nervous    |  |   | Feelings towards his injury prior to return |
| Frustrated | Severity of the injury<br><br>Unable to play in the tournament |   |   |
| Satisfied  |  | Feelings towards the rehabilitation process                           |   |
| Excited    |  | To begin the rehabilitation process<br><br>Knew he was getting better |   |

|            |  |  |   |
|------------|--|--|---|
|            |  | Rehabilitation<br>atmosphere/environment   |   |
| Motivated  |  | The physio was<br>committed to him and<br>had a lot of one-to-one<br>physiotherapy |   |
| Angry      | Unable to<br>compete in the<br>tournament<br><br>Severity of the<br>injury |  |   |
| Encouraged |  | Support from the physio  |   |
| Confident  |  |  | Completing<br>fitness/strength<br>tests prior to<br>return increased<br>self-confidence |
| Relieved   | After diagnosis.<br>Finding out it was<br>and how long                     |  |   |

|            |                                  |  |   |
|------------|----------------------------------|--|---|
|            | he'd be out for                  |  |   |
| Tense      |                                  |  | Feelings towards his injury prior to return |
| Devastated | Left out of the game for a while |  |   |
| Shock      | Just came out of nowhere         |  |   |

**Participant: 10**

|                            | <u>Cause/s</u>   | <u>Cause/s</u>        | <u>Cause/s</u>   |
|----------------------------|--|-----------------------|--|
| <b>Emotional Responses</b> | <b>Onset</b>   | <b>Rehabilitation</b> | <b>Return</b>  |
| Worried                    | How he was going to cope<br><br>How long he'd be out for<br><br>What would happen next |                       | Strength of injured thumb<br><br>Performance levels<br><br>Re-injury |
| Denial                     | The severity of the injury   |                       |  |
| Depressed                  | Couldn't help his team<br><br>Out of the game for a while                              |                       |  |

|            |   |   |  |
|------------|---|---|--|
| Nervous    |   | Nervous about the rehabilitation process and how it will go | Re-injury<br><br>Performance levels<br><br>Execution of skills |
| Distraught | At the severity of the injury                           |   |  |
| Gutted     | Initial response after diagnosis<br><br>Unable to drive |   |  |
| Encouraged |   | Did not experience any setbacks                             |  |
| Concerned  | The injury may affect his school work. Biggest concern  |   | Strength of injured limb                                       |
| Panicking  | Unsure of what would happen                             |   |  |

|           |  |   |   |
|-----------|--|---|---|
|           |  |   |   |
| Happy     |  | <p>Knew he was on the right road to recovery</p> <p>Felt stronger</p>   |   |
| Relieved  | To gain information regarding his injury |   |   |
| Afraid    | Unable to write                          |   |   |
| Confident |  | <p>Was getting closer to getting back playing</p> <p>Physio helped increase confidence through providing support</p> <p>Seeing progressions</p> | <p>Increase in self-confidence due to the progress he made in the rehabilitation phase</p> <p>In own ability once he adapted himself back in to the environment</p> <p>Reassurance from</p> |

|          |                                  |   |   |
|----------|----------------------------------|---|---|
|          |                                  |   | <p>the coach</p> <p>No official test but was told to squeeze tennis ball to test strength of thumb, that absence of pain increased confidence</p> |
| Helpless | Initial response after diagnosis |   |   |
| Fearful  |                                  | <p>The rehabilitation process</p> <p>How his thumb would cope</p> <p>Fail his school work</p> |   |
| Scared   |                                  |   | <p>Of going in to tackles</p> <p>Re-injury</p>  |

|           |  |  |  |
|-----------|--|--|--|
| Calm      |  |  | Once he adapted back in to the competitive environment |
| Relaxed   |  |  | Once he adapted back in to the competitive environment |
| Tense     |  |  | Strength of injured thumb<br><br>Performance levels    |
| Uncertain |  |  | Strength of injured thumb<br><br>Performance levels    |
| Excited   |  |  | To get back in to the mix of things                    |
| Motivated |  |  | To get back in the mix of things                       |

|       |  |  |  |
|-------|--|--|--|
| Angry | Unable to do his work<br><br>Out of the game for a while |  |  |
|-------|--|--|--|