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TEMPORAL PATTERNING OF STRESSORS EXPERIENCED BY ELITE  
RUGBY PLAYERS DURING INJURY  
REHABILITATION.

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## ACKNOWLEDGMENTS

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## ABSTRACT

In recent years there has been an increasing awareness of psychological responses to injury and the injury process as a whole. Previous research has shown how injury can elicit a number of stressors and emotional responses. However, there has been limited temporal research into stressors experienced by injured athletes. The purpose of this study was to explore the stressors and emotional responses experienced by athletes during the three phases of injury: onset of injury, rehabilitation and return to sport. Six semi structured interviews were conducted, followed by a within case analysis of each interview and subsequently across case analysis of the interview data as a whole. This type of analysis was conducted to identify key quotations and emerging themes from the data. The findings of this study supported (Quinn and Fallon, 1999) who found that generally, the trend in emotions reported reflected a move from negative to positive responses over time as a result of this stressors diminish and are easier to cope with. At the initial onset of injury the most prevalent responses were anger, frustration, confusion, low self confidence, shock and fear/worry. In the initial phase the most widely reported stressor was pain. During the rehabilitation phase of injury the most prevalent responses were frustration, anger, low self confidence and fear/worry. In this phase the most commonly cited stressors were pain, concern over missed opportunities and medical concerns. In the final phase of injury, the return to sport, the most commonly reported responses were low self confidence and anxiety this resulted in the participants experiencing the stressor of re-injury.

CHAPTER I  
INTRODUCTION

## Introduction

This present study aims to use semi structured qualitative interviews to explore the experiences that elite rugby union players are confronted with during the injury process within a temporal context (Evans et al. 2006). Specifically the purpose of the study is to gain an in depth understanding of the stressors experienced during injury and how these stressors change or fluctuate during the rehabilitation process as a whole.

## Sport Psychology

Sport psychology is a discipline in which the principles of psychology are applied within a sporting context (Cox, 1994). As the importance placed on sport has increased so has the development of sport psychology and other similar disciplines. Due to this emergence in popularity of sport psychology over the last ten years there has been increased research interest into a number of psychological variables (Evans, Mitchell and Jones 2006).

Previously many sporting institutions and teams have incorporated both physiological (e.g. strength and conditioning coaches) and biomechanical (e.g. to assess technique) but have failed to incorporate a sport psychologists' perspective to develop or improve athletes psychological skills. However, due to this new importance placed on sport and the need for teams to get any possible advantage over their opposition and the need for teams to play at an optimum level, there has been an increased use of psychologists in the sporting arena (Jones, 1995).

These sport psychologists aim to prepare athletes for sport by helping them to deal with the stress and anxiety they may encounter in or as a result of sport (Jones, 1995). As a result it is not surprising that this study and previous studies have chosen to explore the area of stress and stressors experienced in sport.

### Psychology of Injuries

In recent years injury has become a major area that has been investigated by psychologists and sport psychologists in particular. Injury has shown to cause high levels of depression, anger, isolation and lowered self-esteem (Leddy et al., 1994). However, there is still very little known about athletes emotional responses to injury and stressors experienced through the injury process (Shelly, 1995).

### Stressors

A stressor can be defined as an environmental demand (i.e., stimuli) encountered by an individual. Stressors, therefore, are events, situations or conditions, and strain is a person's negative reaction to stressors. The term stress should not be used to describe specific components of the transaction between the person and the environment (Lazarus, 1990), but rather to represent the overall process incorporating stressors, strains, appraisals and coping responses. According to Gould et al. (1993), stressors suffered by elite performers include preparation and performance problems, coach and team mate influence, administrative decisions, social support, accommodation, travel, nutrition, training facilities, and financial and time pressures.

CHAPTER II  
METHOD

## Method

### Introduction

In order to address the purposes of the present study a qualitative semi-structured interview design was incorporated. This approach was adopted because qualitative research is the best method for gaining an in depth understanding of athletes' thoughts, feelings and behaviour through the entire injury process (Shelley, 1995). The semi structured interviews in particular were incorporated to minimise the variation in the questions posed but still allow for the opportunity to pose probing questions in response to the answers given (Saunders et al. 1997). During the interview each participant was asked to give detailed information mainly regarding what they found stressful during the three phases of the injury process, from when the injury initially occurred all the way up to their subsequent return back to competitive sport.

### Participants

The participants were 6 male rugby players who were aged between 18 and 21 years old. These participants were purposively sampled to meet specific selection criteria (Patton, 2002). All the participants were required to be elite athletes, this meant that they had to have played at regional or county level as a minimum. All 6 participants had represented their region or county, with one of the participants also representing his country at international level. All participants had suffered an injury in the 12-16 months before their interview, which had prevented them from taking part in their sport for a period of at least 4 weeks. This type of sampling is consistent with Goetz and LeCompte (1984) who used a term called 'criterion- based sampling' where the

study has criteria that a potential participant has to match in order to take part in the study.

### Interview

Interviews were conducted using an interview guide. The guide was developed specifically for the purpose of the study based on an extensive review of the relevant research literature (Patton, 2002). The guide was developed to account for the three different phases of injury. Specifically, injury onset, the rehabilitation process and the subsequent return back to competitive sport. Within each section, questions explored what demands the participants experienced, what they found stressful and how these feelings changed from one phase of injury to the next.

Sample questions included:

1. What did you find stressful/ what demands did you experience from the time that the injury occurred to when you first received your first physiotherapy appointment?
2. What did you find stressful/ what demands did you experience during the rehabilitation phase of your injury?
3. What did you find stressful/ what demands did you experience during your return to competitive sport?
4. What affect did these stressors and demands have on your thoughts, feelings and behaviours?

Although the interview guide insured that all the topics were covered in each interview the exact wording and probes did vary, this was the case in order for the interviewer to obtain all the necessary information from each interviewee. In order to assess the ability of the interview guide to yield sufficient relevant results a pilot study was conducted. This pilot study did provide enough relevant results so then the interviews were organised and carried out, all interviews lasted between 25 to 55 minutes.

### Procedures

Potential participants were emailed in order to establish their willingness to take part in the study. The email also briefly outlined the purpose of the study and what was required of them as a participant. Ten people were identified that met all of the study criteria, of these ten potential participants six agreed to take part in the study.

As soon as the participants replied indicating their willingness to participate, a copy of the interview help sheet was emailed to them in order for them to get a more in depth understanding of some key phrases and definitions within the study (see appendix). Interviews were conducted at a time and location of the participants choice, with most interviews taking part in a private room at UWIC (The university of Wales institute Cardiff). All of the participants were known to the researcher having played with and against them for a number of years, thus enhancing the trustworthiness of the data. This familiarity also meant there was a good rapport

between interviewer and interviewee which is considered a vital component in the interview process (Thomas and Nelson, 1996).

The next stage was the interviewing of the six participants. The participants were met at the destination that they had highlighted at the time they had highlighted. They were then reminded of the purpose of the study and their rights as a participant. All participants read and signed a written informed consent form.

The interviews were recorded on a Dictaphone, which allows the interviewer to solely concentrate on questioning and listening (Healey and Rawlinson, 1994). Subsequently all interviews were transcribed verbatim, and returned to the participants for the purpose of data verification (Patton, 2002).

### Data Analysis

All interviews were transcribed verbatim, in order for familiarisation with the raw data the interviews were listened to a number of times and the transcripts were read and re-read.

The analysis of the raw data was carried out by sorting through the data and organising it into different categories. Then all of the transcripts were analysed in two ways: within case analysis and across case analysis. Within case analysis is the process by which individual transcripts are labelled and highlighted in order to sort emerging themes and particular quotations of interest from each transcript. This was achieved by the use of highlighting and a data recording sheet in the form of a table.

Across case analysis is the process by which a number of transcripts or pieces of raw data are configured and compared for similarities, differences and emerging themes across the board. This was achieved also by the use a data recording sheet. After the relevant information had been gathered for the two data recording sheets the findings were then compared with the current research literature.

### Reliability and Validity

Due to the qualitative nature of the present study it was of the utmost importance to asses the issues of reliability and validity. Reliability, which ensures future researchers could find the same results by carrying out the exact same processes (Saunders et al., 1997), was established in the study by providing a detailed explanation of the processes and methodology used. The use of an interview guide also insures reliability because a future researcher could use the interview guide used in the present study to yield similar results. Another potential problem in this study and the interviews in particular was the familiarity of the participants with the interviewer, this potential problem was dealt with by insuring that the interviews were conducted in a formal manner, while still allowing for the rapport between participant and interviewer to yield relevant detailed information.

External validity, which is also known as transferability, is the applicability of experimental results to real situations or the degree to which results of a study with a sample of subjects can be generalised to make statements about a much larger population of subjects. (Kent, 1996).

Internal validity, which is also known as credibility, is the need for the researcher to control all variables that may affect their results (Thomas and Nelson, 1996). Internal validity was achieved in this study by the researcher asking all participants the same questions, in the same manner, in roughly the same order with similar probes. This was achieved by the use of the interview guide and the probes were also preset to further ensure internal validity.

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## APPENDICES

APPENDIX A  
FRONT COVER

APPENDIX B  
INTERVIEW GUIDE

APPENDIX C  
WITHIN CASE ANALYSIS

APPENDIX D  
ACROSS CASE ANALYSIS