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THE ANTECEDENTS, CONSEQUENCES AND COPING STRATEGIES OF
AGGRESSION DISPLAYED BY WOMENS RUGBY UNION PLAYERS DURING
MATCH TIME.

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Acknowledgements

I would like to thank Ian Mitchell for his guidance over the past few months and also Dr. Kylie Wilson for her assistance in the collection of the questionnaires.

I would like to thank my family for their support over the past three years and also Sara and Becky who have helped me through it all, I couldn't have done it without you.

Abstract

The purpose of this study was to examine the antecedents of aggression in womens rugby union players, and what effect they perceived this to have on their performance. Identification of coping strategies was also an objective of the study, to examine the participants' use of approach and avoidance coping, and what relation this had with performance. The Profile of Mood State (POMS) questionnaire was gathered from each participant following their involvement in four different rugby union matches. Mean anger scores were calculated from the questionnaires, those participants possessing the highest anger scores were then interviewed. Case reports were written on each individual interviewee, condensing their responses from the transcribed interviews.

It was found that interviewees described aggression in terms of assertion, and that their perceived feelings of aggression were as a result of heightened frustration. The main causes of heightened frustration were identified as teammates, opponents, coaches and officials, which resulted in the use of aggressive behaviour, demonstrating the frustration-aggression hypothesis. Participants believed that aggression could have both a positive and negative effect on performance, exemplifying aggressions complexity. Each participant acknowledged their use of both approach and avoidance coping in different situations, but also that their coping responses didn't always aid performance. A limitation of this study was its relative small sample size with a 50% drop out rate, limiting the generalizability of results. Future research is required in this area to examine coping effectiveness and whether coping can be operationalised effectively into dispositional and situational coping.

CHAPTER I

1.0 Introduction

According to Leith (1991) aggression has been a widely researched area in sport; however there is yet to be a universally accepted definition. The notion of aggression is complex due to the variety of behaviours and actions labelled as aggressive; therefore the definitions proposed in research to date are very broad and depend on many variables. It would seem that the defining of athletic aggression possesses even greater difficulty as there are many environmental cues which trigger aggressive behaviour (Collins et al., 1995). Also the problematic defining of aggression stems from the inconsistent judgement of behaviour as aggressive or assertive (Leith, 1991), as 'not all forceful behaviour exhibited in sport is aggressive' (Husman and Silva III, 1984, p. 249). A definition for aggression in sport which is widely drawn upon however, is that stated by Silva III (1980) as, 'an aggressive act is an overt act that is either physical or verbal in nature and has the potential to physically or psychologically injure the target' (p. 177).

Coping is an additional complex construct within sport psychology, which according to Carver et al. (1989) has also received much interest. Hardy et al. (1996) stated that there is no universally accepted definition for coping due to its complex nature; therefore it has been subsequent to categorisation. To emphasise the complexity of coping, Hardy et al. (1996) explained that coping is 'a dynamic sequence of steps involving both cognitive and behavioural efforts to manage stress' (p. 206). Coping has been categorised into approach and avoidance strategies, however as Nicholls et al. (2006) identified there are many coping responses which represent these categories.

Even though these two important construct of sport psychology have been extensively researched, Nicholls et al. (2006) has identified that little research has been conducted on rugby players in terms of stress and coping. The purpose of the study was therefore to expand on previous research which had been conducted in the areas of aggression and coping strategies amongst female rugby union players. The examination of the antecedents and consequences of aggression, and the coping strategies employed to combat the effect of aggression on performance were the sole purpose of the study. Due to the exploratory nature of the study, a qualitative, mixed methods approach was employed, with the use of interviews

to gather in-depth information from the participants. The study aimed to identify why individuals become aggressive, and the possible role the theories of aggression had on the individuals' behaviour. Also the examination of the effect aggressive behaviour has on athletic performance was an important dimension of the study, to demonstrate the importance of the understanding of aggression. To develop an understanding of the coping strategies used by the participants was also important so that the findings of the study may be able to aid individuals to cope in stressful situations. The findings of this study are therefore intended to assist coaches and players alike of the complex notions of aggression, and how the use of appropriate coping strategies is important for successful performance.

CHAPTER III

3.0 Methodology

3.1 Rationale

The study used a mixed-method approach due to its exploratory nature, using both questionnaires and interviews to gather relevant and in-depth data. According to Patton (1990) qualitative analysis allows people to be understood in their own terms and in their own natural setting. Miles and Huberman (1984) further exaggerated this point by explaining that qualitative data appears in words rather than numbers, giving immediate meaning to the collected data. Quantitative data however requires its interpretation and analysis before it can be understood. The use of a mixed-method approach was required for this study to assess the participants before taking part in an interview. Patton (2002) argued that studies which use only one method for data collection are more vulnerable to errors linked with the method, in comparison with studies which use multiple methods which adds to the validity of the study.

The purpose of the study was to expand the previous research on aggression in sport, with regards to its effects on performance and coping strategies of womens' rugby union players. Research into the area of aggression and coping strategies has previously been focused on quantitative data collection techniques (Collins et al., 1995; Wall and Gruber, 1986; Widmeyer and McGuire, 1997 and Worrell and Harries, 1986), however the current study was designed to implement qualitative techniques to obtain relevant and rich data. The study was particularly concerned with a statement made by Nicholls et al. (2006) who identified that little research had been conducted in rugby union in terms of stress and coping.

3.2 Participants

The sample of participants used for this study were purposely selected from a population from which the researcher could learn the most, thus enhancing validity and reliability (Thomas and Nelson, 1990). This is supported by Patton (2002) who stated that purposeful sampling is employed to 'learn a great deal about issues of central importance to the purpose of the study' (p. 46) from information-rich cases to provide an in-depth study. Also as the researcher had access to the participants, it was possible to gather data without posing a threat to their natural environment. The sample consisted of 22 university women's rugby union

players. All participants were female, were aged between 19 and 25 (mean age = 20.5, and standard deviation = 1.68), and were all currently playing for UWIC women's rugby with varying playing levels and experience. The mean anger score for the whole sample was 11 and the standard deviation was 6.82, all participants who were considered the most aggressive demonstrated a mean anger score, above that of the group (see Appendix C). However there was a 50% drop out rate, meaning that the interviewed participants were chosen from the 11 remaining participants.

3.3 Procedure and Ethical Consideration

Extreme care must be taken when using human beings in any study; therefore it is the researcher's responsibility to protect the rights and well-being of participants' (Thomas et al. 2005). Before the commencement of the initial Profile of Mood States (POMS) questionnaire, informed consent was obtained from all subjects after they were truthfully and carefully informed of the purpose of the research (see Appendix A). The participants were also made fully aware of their right to privacy, confidentiality and to remain anonymous; with participants' names being replaced by a number (see Appendix C), and the measures taken by the researcher to ensure this. Furthermore it was explained to the participants that withdrawal from the study was possible at any given time.

On meeting the participants their informed consent was obtained for their participation and the purpose of the study explained to them (see Appendix A). The first POMS questionnaire (see Appendix B) was also gathered during this meeting, as the participants had previously played a rugby match, of which they reflected on their feelings and emotions. A further three collection points of the POMS questionnaires were obtained from the same set of players within one hour of the end of the match, for their next three matches. As a result, mean anger levels were calculated and the participants with the highest levels were identified.

The four participants with the highest mean levels of anger from the four POMS questionnaires were interviewed at a mutually agreeable time and place. This was carried out for the convenience of the participant, with interviews lasting no longer than 35 minutes.

Open-ended interviews with a set of probe questions were utilised to gather data rather than self-report questionnaires or closed-ended questions, in order to allow the respondent unlimited choice of response, allowing the researcher to examine the findings extensively rather than the simple identification of general factors (Bredemeier and Shields, 1986). Although the POMS questionnaire was initially used in the study as a self-report method to identify the most aggressive subjects, these individuals were then interviewed to understand how their anger emotions affected them and how they coped in these situations. According to Maxwell (2004) 'high levels of anger rumination would be associated with an increase in propensity to aggress' (p. 279) supporting the use of the POMS questionnaire. Patton (2002) argues that an advantage of using an interview method is that questions can be rephrased or explained if the subject does not understand them, however questions needed to be clear so that the interviewee understood and did not become confused of what was asked of them. A dictaphone was used to record the interview to ensure the accurate gathering of data, and was later transcribed verbatim (see Appendix E) for its analysis.

An interview guide (see Appendix D) was designed by the researcher as suggested by Patton (2002) so that each subject was asked the same questions to avoid ambiguity in the results. A set of follow up questions and probes were also devised for each question to increase the richness and depth of response, and to keep the interview focused on the intended issues. However Patton (1990) explained that qualitative design unfolds as fieldwork unfolds, it is impossible to specify variables, state hypotheses or finalise instrumentation due to the naturalistic and inductive nature of the study.

To begin the interview the interviewees were given a copy of the interview guide to read in order to reduce possible levels of anxiety, and so that they knew exactly what to expect. The term aggression was outlined and explained to each interviewee so that there was no ambiguity of what the term actually meant to the study of research. Once the participants had answered all of the interview questions, they were then asked to reflect on the interview itself, stating simply whether they understood all questions asked of them, and whether they had any additional comments they would like to make, that may not have been covered during the interview.

3.4 Pilot Study

To develop the interview guide a pilot study was conducted, as Thomas et al. (2005) stated, pilot studies are used to demonstrate skill and knowledge and how to implement instruments and procedures accurately and reliably for the research intended. Conducting a pilot study adds to the validity of the gathered research, therefore it was conducted before the commencement of the main study. It was elected to utilise a pilot study before the main data collection process to ensure the adequate testing of the instrument (interviewer) and procedure (asking questions from interview guide). Thomas et al. (2005) stresses that '75% of research efforts are not published and make no contribution to theory or practice because of major methodological flaws that could have been easily corrected with pilot work' (p. 71) . Therefore pilot work was conducted and enabled the researcher to recognise and rectify problems that may have been detrimental to the study. From the pilot study it was evident that the researcher needed to become familiar in the use of probing, also two additional questions were added to the interview guide. The pilot study was conducted with a participant who also demonstrated a high level of anger above the mean of the group, so that the interview guide was relevant to the participant.

3.5 Reliability and Validity

According to Silverman (2000) validity is another word for truth, and can often be doubted, especially if the researcher makes no attempt to deal with opposing cases. Internal validity or credibility was achieved during the study by prolonged engagement, this was done via the administration of the POMS questionnaire at four different time intervals, to assess the players' true anger levels during match time, and avoid one off feelings. The validity of the POMS questionnaire was supported by Snow and LeUnes (1994), who stated that 'the POMS has proven to be a popular and abundantly useful psychometric instrument in sport-related research' (p. 210). Also referential adequacy, according to Hardy et al. (1996) furthers the credibility of this study, via the use of audio-taped and transcribed interviews, allowing recorded data to be checked for its accuracy.

Hardy et al. (1996) recognised that the thick description of procedures helps achieve transferability or external validity and reliability. Silverman (1993) stated that structured interview guides contributes to the reliability of this study, as each question should be asked

precisely with the same wording using the same set of probes. According to Patton (2002, p. 347) 'collecting the same information from each person poses no credibility problem when each person is understood as a unique informant with a unique perspective', providing support for the use of interview guides. The reliability of this study was strengthened due to its use of multiple methods, with the multiple administration of the POMS questionnaire and the utilisation of interviews to gather in-depth information (Patton, 2002). Also as Hardy et al. (1996) stated, the use of stepwise replication can be used to add reliability to studies, therefore the consistent noting of patterns between interviews was carried out.

3.6 Data Analysis

The researcher first became familiar with the content of each individual interview through reading and re-reading transcripts and repeated listening of the audio-tapes (Hardy et al., 1996). After this familiarisation with the interview data was complete, a report was written for each individual case. According to Patton (2002) a case report (see Appendix F) is a condensation of each of the case data, including all major findings which can then be used for cross-case analysis within the results and discussion section. To facilitate the identification of patterns and themes, coding was conducted on the case reports, which, according to Miles and Huberman (1984) is a way of grouping similar text from different individuals, 'into a number of overarching themes and constructs' (p. 68). These themes were identified using an inductive approach (Patton, 2002) and quotes were used from the transcripts to represent the causes and consequences of aggression, along with the different coping strategies identified. It is apparent that when using an inductive approach, the specification of the main variables and categories are identified during the ongoing data collection so that the organisation of raw data is possible (Patton, 2002). Deductive analysis however was not adopted during this study as the categories and patterns of the data depended on the individual response of the interviewees. Therefore it was decided that predetermined categories would not be beneficial to this study, however when designing the interview guide, clear, distinctive and structural sections were devised to give the interview structure and continuity. This is supported by Dey (1993) who stated that 'categorisation can contribute to identifying meaning-in-context' (p. 266). Once themes had been established within the results, cross-case analysis was conducted to allow the comparison of the interviewees, so that an overview of the findings was possible (Miles and Huberman, 1984).

Therefore the themes displayed within the raw data, which may be evident from previous research or may have emerged from the current studies interviews, will be discussed in terms of the antecedents of aggression and its perceived effect on performance, but also coping strategies employed by the individuals in an effort to eradicate factors which may prove detrimental to their performance will be examined.

CHAPTER V

5.0 Conclusion

The purpose of this study was to discover the antecedents of aggression in women's rugby union players, and to recognise what effect this aggression may have on their performance. In addition it was also important to identify the coping strategies used by the participants to overcome the stressful situations in an attempt to lower anger levels. Following the interview process with four of the angriest participants', case reports were created and coded to identify themes and patterns between participants' responses.

One emerging theme from the participants' response which was not regarded within the predetermined dimensions was their defining of aggression. All participants stated that aggression is being physical, with two of the participants adding that aggression is acceptable in sport as long as it is within the rule structure of the game. However participants merely described assertion and as identified by many researchers (Husman and Silva 1984; Kirker et al., 2000; Silva, 1980) there has been much confusion over the differentiation between aggression and assertion, and that the distinguishing characteristic between the two is intent. However, even though the participants' regarded aggression in this way, it is their belief that they become and feel aggressive during competition as a result of a build up of frustration.

Two themes were identified within the antecedents dimension, both regarding frustration. All interviewees identified that their build up of frustration was as a result of other people, these included teammates, opponents, coaches and referees. If teammates were perceived not to be playing to their ability and not putting all of their efforts into a match, this caused the interviewed participants to become frustrated. Opponents who used aggressive behaviour, played outside of the rules and aimed to annoy the participants also increased the level of frustration amongst participants. It was the inconsistent judgement, bias and incorrect decisions by the referee that caused great frustration amongst the participants, and the continual pressure from the coaches to perform well match after match to retain their playing position. As Leith (1991) explained, this frustration arises from the participants' assessments of situations as goal-blocked. In other words the actions of teammates, opponents, referees and coaches deter, in different ways, the participants' means to carry out a successful performance. From these findings, another theme was identified, the frustration-aggression

hypothesis. Previously this theory of aggression has received little support; however the interviewed participants' of this study argued that their aggression was as a result of their increased levels of frustration.

As a result of frustration, the participants' admitted that their aggression could sometimes have a positive and negative effect on their performance. The positive effects were described as increased work rate and effort which would aid performance through the turning over of the ball, and as participant 3 suggested, could provide motivation for the rest of the team members. The negative effect of aggression on performance, as described by the interviewees, were the loss of concentration of the game and thinking about being aggressive resulting in performance mistakes, and playing outside of the rules as a means of retaliation which would eventually result in the team's penalisation.

Within the coping dimension two themes were identified as adaptive and maladaptive coping (Anshel, 2001), however two further themes were identified within the adaptive coping as approach and avoidance. Adaptive coping is the type of coping that is used to lower aggression levels, but is also beneficial for performance. Each participant acknowledged the utilisation of both approach and avoidance coping. Approach coping was identified by the participants' as an increase in effort and work rate as a means of managing difficult or stressful situations, and also that they would always keep trying to resolve a problem rather giving in. Positive reappraisal of situations was also exemplified by the participants as a way of approach coping, and the encouragement of teammates was adopted to deal with those who were not seen to be playing to their best abilities.

Avoidance coping was recognised through the blocking out or ignoring other individuals or situations. All participants' also reported the focusing on their next task as a way of coping with different situations to try and forget about what was causing them to feel frustrated and aggressive in the first place. Although this style of coping has been suggested as one of the most effective in short-term situations (Anshel and Delany, 2001), the participants occasionally reported playing outside of the rules and retaliating against opponents as a result of being aggressive and trying to release that aggression. The participants recognised

however that the use of retaliatory behaviour sometimes resulting in penalisation. Therefore acting in such a way could be seen as coping as it can help release anger, although it can be detrimental to performance, hence being referred to as maladaptive coping.

5.1 Limitations

From the 22 participants' who agreed to take part in this study, there was a 50% drop out rate, with only 11 participants' completing all four POMS questionnaires at the four different collection points. Therefore there was only a small sample of participants' from which the interviewees could be chosen. Due to this small sample size and the qualitative nature of the study, generalizability of the results are limited, although they correspond well to Nicholls et al. (2006) findings.

The design of this study was based on the self report of the participants. First the participants had to reflect on the feelings they experienced during a match within one hour of the matches completion. Also the four participants who were interviewed had to think back and recall feelings they experience during competition, why these feelings had arisen, and how they act to cope in these stressful situations. Not only can it be difficult to recall feelings and behaviours that happened over a time period, but self report instrumentation allow participants to conform to socially desirable responses (Stephens, 1998), and may not respond truthfully.

5.2 Recommended Future Research

It was evident from the transcribed interviews that the interviewees were all forwards players, therefore it seems logical that a study in the future could compare the coping strategies of forwards and backs, to identify why forwards seem to be more aggressive than backs. Although this study could identify the participants' perception of the use of their coping strategies, this cannot provide compelling evidence for the effectiveness of their use. The study of the effectiveness of coping responses would aid practitioners when encouraging athletes to use the most effective coping strategies to reduce anger levels. Also according to Anshel et al. (2001) it is necessary in future research to form a relationship between the

appraisal of a situation (degree of stressfulness) and the most appropriate coping response to reduce negative emotions. There has been much dispute regarding the trait versus state view on coping, and whether trait can predict state, however further research in this area would benefit the sport psychology literature, providing practitioners with a greater understanding of coping.

CHAPTER VI

6.0 References

- Anshel, M.H. (2001). Qualitative Validation of a Model for Coping with Acute Stress in Sport. *Journal of Sport Behaviour*, **24**, (3), 223-245.
- Anshel, M.H., and Anderson, D.I. (2002). Coping With Acute Stress in Sport: Linking Athletes' Coping Style, Coping Strategies, Affect, and Motor Performance. *Anxiety, Stress and Coping*, **15**, (2), 193-209.
- Anshel, M.H., and Delany, J. (2001). Sources of Acute Stress, Cognitive Appraisals, and Coping Strategies of Male and Female Child Athletes. *Journal of Sport Behavior*, **24**, (4), 329-353.
- Anshel, M.H., Jamieson, J., and Raviv, S. (2001). Cognitive Appraisals and Coping Strategies Following Acute Stress Among Skilled Competitive Male and Female Athletes. *Journal of Sport Behavior*, **24**, (2), 128-143.
- Bredemeier, B. (1980). Applications and Implications of Aggression Research. In *Sport Psychology: An Analysis of Athlete Behavior* (edited by W.F. Straub), pp. 203-213. Chester: Movement Publications.
- Bredemeier, B.J., and Shields, D.L. (1986). Athletic Aggression: An Issue of Contextual Morality. *Sociology of Sport Journal*, **3**, 15-28.
- Buchwald, P. (2003). The Relationship of Individual and Communal State-Trait Coping and Interpersonal Resources as Trust, Empathy and Responsibility. *Anxiety, Stress and Coping*, **16**, (3), 307-320.
- Carron, A.V., Bray, S.R., and Eys, M.A. (2002). Team Cohesion and Team Success in Sport. *Journal of Sport Sciences*, **20**, 119-126.
- Carver, C.S., Scheier, M.F., and Weintraub, J.K. (1989). Assessing Coping Strategies: A Theoretically Based Approach. *Journal of Personality and Social Psychology*, **56**, (2), 267-283.
- Collins, D., Hale, B., and Loomis, J. (1995). Differences in Emotional Responsivity and Anger in Athletes and Nonathletes: Startle Reflex Modulation and Attributional Response. *Journal of Sport and Exercise Psychology*, **17**, 171-184.

- Cox, R.H. (1994) *Sport Psychology: Concepts and Applications*. Third Edition. USA: Brown and Benchmark.
- Crocker, P.R.E., and Graham, T.R. (1995). Coping by Competitive Athletes with Performance Stress: Gender Differences and Relationship with Affect. *The Sport Psychologist*, **9**, 325-338.
- Dey, I. (1993). *Qualitative Data Analysis: A User-Friendly Guide for Social Scientists*. London: Routledge.
- Freischlag, J., and Schmidke, C. (1980). Violence in Sports: Its Causes and Some Solutions. In *Sport Psychology: An Analysis of Athlete Behavior* (edited by W.F. Straub), pp. 161-165. Chester: Mouvement Publications.
- Gill, D. (2000). *Psychological Dynamics of Sport and Exercise*. Champaign, IL: Human Kinetics, (cited in, Weinberg, R.S., and Gould, D. (2003). *Foundations of Sport and Exercise*. Champaign, IL: Human Kinetics).
- Hardy, L., Jones, G., and Gould, D. (1996). *Understanding Psychological Preparation for Sport: Theory and Practice of Elite Performers*. Chichester: John Wiley and Sons, Inc.
- Hoar, S.D., Kowalski, K.C., Gaudreau, P., and Crocker, P.R.E. (2006). A Review of Coping in Sport. In *Literature Reviews in Sport Psychology* (edited by S. Hanton and S.D. Mellalieu), pp. 47-90. New York: Nova Science Publishers, Inc.
- Husman, B. (1980). Aggression: An Historical Perspective. In *Sport Psychology: An Analysis of Athlete Behavior* (edited by W.F. Straub), pp. 166-176. Chester: Mouvement Publications.
- Husman, B.F., and Silva III, J.M. (1984). Aggression in Sport: Definitional and Theoretical Considerations. In *Psychological Foundations of Sport* (edited by J.M. Silva and R.S. Weinberg), pp. 246-260. Champaign, IL: Human Kinetics.
- Kaissidis-Rodafinos, A., Anshel, M.H., and Porter, A. (1997). Personal and Situational Factors that Predict Coping Strategies for Acute Stress Among Basketball Referees. *Journal of Sports Science*, **15**, 427-436.

- Kirker, B., Tenenbaum, G., and Mattson, J. (2000). An investigation of the dynamics of aggression: direct observations in ice hockey and basketball. *Research Quarterly for Exercise and Sport*, **71**, (4), 373-386.
- Lazarus, R.S., and Folkman, S. (1984). *Stress Appraisal and Coping*. New York: Springer, (cited in, Hardy, L., Jones, G., and Gould, D. (1996). *Understanding Psychological Preparation for Sport: Theory and Practice of Elite Performers*. Chichester: John Wiley and Sons, Inc).
- Leith, L. (1991). Aggression. In *Sport Psychology: A Self-Help Guide*. (edited by S.J. Bull), pp. 52-69. Marlborough: The Crowood Press.
- Lemieux, P., McKelvie, S.J., and Stout, D. (2002). Self-report Hostile Aggression in Contact Athletes, No Contact Athletes and Non-Athletes. *Athletic Insight, The Online Journal of Sport Psychology*.
- Martin, L. (1976). Effects of Competition upon the Aggressive Responses of College Basketball Players and Wrestlers. *Research Quarterly*, **47**, 388-393, (cited in, Silva, J.M., and Weinberg, R.S. (1984). *Psychological Foundations of Sport*. Champaign, IL: Human Kinetics).
- Maxwell, J.P. (2004). Anger Rumination: An Antecedent of Athlete Aggression? *Psychology of Sport and Exercise*, **5**, 279-289.
- Miles, M.B., and Huberman, A.M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. London: SAGE Publications, Inc.
- Monnier, J., Hobfoll, S.E., Dunahoo, C.L., Hulsizer, M.R., and Johnson, R. (1998). There's More than Rugged Individualism in Coping. Part 2: Construct Validity and Further Model Testing. *Anxiety, Stress and Coping*, **11**, 247-272.
- Nicholls, A.R., Holt, N.L., Polman, R.C.J., and Bloomfield, J. (2006). Stressors, Coping, and Coping Effectiveness Among Professional Rugby Union Players. *The Sport Psychologist*, **20**, 314-329.
- Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods*. Second Edition. London: SAGE Publications, Inc.

- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. Third Edition. London: SAGE Publications, Inc.
- Silva III, J.M. (1980). Understanding Aggressive Behaviour and Its Effects Upon Athletic Performance. In *Sport Psychology: An Analysis of Athlete Behavior* (edited by W.F. Straub), pp. 177-186. Chester: Mouvement Publications.
- Silva III, J.M. (1984). Factors Related to the Acquisition and Exhibition of Aggressive Sport Behavior. In *Psychological Foundations of Sport* (edited by J.M. Silva and R.S. Weinberg), pp. 261-273. Champaign, IL: Human Kinetics.
- Silva III, J.M. (1984). *Psychological Foundations of Sport*. Champaign, IL: Human Kinetics.
- Silverman, D. (1993). *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*. London: SAGE Publications Ltd, Thousand Oaks.
- Silverman, D. (2000). *Doing Qualitative Research: A Practical Handbook*. London: SAGE Publications Ltd, Thousand Oaks.
- Snow, A., and LeUnes, A. (1994). Characteristics of Sports Research Using the Profile of Mood States. *Journal of Sports Behaviour*, **17**, (1), 207-211.
- Stephens, D.E. (1998). Aggression. In *Advances in Sport and Exercise Psychology Measurement* (edited by J.L. Duda), pp. 277-292. Morgantown, WV: Fitness Information Technology, Inc.
- Teipel, D., Gerisch, G., and Busse, M. (1983). Evaluation of Aggressive Behaviour in Football. *International Journal of Sport Psychology*, **14**, 228-242.
- Tenenbaum, G., Stewart, E., Singer, R.N., and Duda, J. (1996). Aggression and Violence in Sport: An ISSP Position Stand. *International Journal of Sport Psychology*, **27**, 229-236.
- Terry, P.C., and Jackson, J.J. (1985). The Determinants and Control of Violence in Sport. *Quest*, **37**, 27-36.
- Thomas, J.R., and Nelson, J.K. (1990). *Research Methods in Physical Activity*. Second Edition. Champaign, IL: Human Kinetics.

- Thomas, J.R., Nelson, J.K., and Silverman, S.J. (2005). *Research Methods in Physical Activity*. Fifth Edition. Leeds: Human Kinetics.
- Wall, B.R., and Gruber, J.J. (1986). Relevancy of Athletic Aggression Inventory for the use in Women's Intercollegiate Basketball: A Pilot Investigation. *International Journal of Sport Psychology*, **17**, 23-33.
- Weinberg, R.S., and Gould, D. (2003). *Foundations of Sport and Exercise Psychology*. Third Edition. Champaign, IL: Human Kinetics.
- Widmeyer, W.N. (1984). Aggression-Performance Relationships in Sport. In *Psychological Foundations of Sport* (edited by J.M. Silva and R.S. Weinberg), pp. 274-286. Champaign, IL: Human Kinetics.
- Widmeyer, W.N., and McGuire, E.J. (1997). Frequency of Competition and Aggression in Professional Ice Hockey. *International Journal of Sport Psychology*, **28**, 57-66.
- Worrell, G.L., and Harris, D.V. (1986). The Relationship of Perceived and Observed Aggression of Ice Hockey Players. *International Journal of Sport Psychology*, **17**, 34-40.

APPENDICES

APPENDIX A

Dear Subject,

I am currently a student at the University of Wales Institute Cardiff, in the School of Sport, PE and Recreation and am in the process of conducting my level 3 undergraduate dissertation. My dissertation question is the manifestations, consequences and coping strategies of aggression displayed by womens rugby union players during a match and wondered if you would be kind enough to help with my research.

The research aim is to discover what coping strategies are best used when dealing with aggression. As a subject you will be required to fill in four Profile of Mood States questionnaires, one after each of your next four BUSA matches before the Christmas break. You may then be asked to take part in an interview that will take no longer than 45 minutes.

Confidentiality will be upheld as far as humanly possible. Your name will remain anonymous at all times, and the features cited are only those relevant to the research. During the research process the data will be kept in a secure holding, and access will be restricted to the researcher and my dissertation tutor only. The final dissertation will be kept at UWIC.

Participation is entirely voluntary and you are free to withdraw at any stage of the research process.

If you are willing to participate, then please red the slip overleaf carefully, and sign. If you have any queries, do not hesitate to contact me. (elin1morris@hotmail.com)

Thank you.

Elin Morris

I have read and understood the request to be a participant in the above research. I understand the risks involved, I understand the participation is voluntary, and that withdrawal is possible at any time. I understand the measures that will be taken to uphold confidentiality. I agree to participate.

Signature:

Date:

D.O.B:

APPENDIX B

A table to show the participants POMS results

Participant	Age	<u>POMS questionnaire scores</u>				Average Score
		<u>07/11/2007</u>	<u>14/11/2007</u>	<u>05/12/2007</u>	<u>23/01/2007</u>	
1	19	4	26	18	15	15.75
2	20	20	14	9	10	13.25
3	25	38	42	17	8	26.25
4	19	22	21	20	14	19.25
5	20	10	18	11	9	12
6	19	14	25	11	3	13.25
7	20	7	7	3	0	4.25
8	19	5	1	2	3	2.75
9	20	4	3	2	5	3.5
10	20	8	6	12	7	8.25
11	20	4	3	8	3	4.5
12	22	20	11	3	2	9
13	21	0	1	6		11
14	21	20	23			
15	23	3				
16	24	4				
17	20	9		8		
18	22	18				
19	20	10				
20	19	18				
21	20	3				
22	19	17				
Mean	20.545455				Mean	11
Standard Deviation	1.6826077				Standard Deviation	6.819090848

APPENDIX C

Profile of Mood States (POMS).

Below is a list of words that describe feelings people have. Please read each one carefully. Then circle the answer which best describes HOW YOU FELT DURING THE MATCH YOU JUST PLAYED.

Please answer each of the following 65 items.

		Not at all	A little	Moderately	Quite a bit	Extremely
1	Friendly	0	1	2	3	4
2	Tense	0	1	2	3	4
3	Angry	0	1	2	3	4
4	Worn out	0	1	2	3	4
5	Unhappy	0	1	2	3	4
6	Clear headed	0	1	2	3	4
7	Lively	0	1	2	3	4
8	Confused	0	1	2	3	4
9	Sorry for things done	0	1	2	3	4
10	Shaky	0	1	2	3	4
11	Listless	0	1	2	3	4
12	Peeved	0	1	2	3	4
13	Considerate	0	1	2	3	4
14	Sad	0	1	2	3	4
15	Active	0	1	2	3	4
16	On edge	0	1	2	3	4
17	Grouchy	0	1	2	3	4
18	Blue	0	1	2	3	4
19	Energetic	0	1	2	3	4
20	Panicky	0	1	2	3	4
21	Hopeless	0	1	2	3	4
22	Relaxed	0	1	2	3	4
23	Unworthy	0	1	2	3	4
24	Spiteful	0	1	2	3	4
25	Sympathetic	0	1	2	3	4
26	Uneasy	0	1	2	3	4
27	Restless	0	1	2	3	4

28	Unable to concentrate	0	1	2	3	4
29	Fatigued	0	1	2	3	4
30	Helpful	0	1	2	3	4
		Not at all	A little	Moderate	Quite a bit	Extremely
31	Annoyed	0	1	2	3	4
32	Discouraged	0	1	2	3	4
33	Resentful	0	1	2	3	4
34	Nervous	0	1	2	3	4
35	Lonely	0	1	2	3	4
36	Miserable	0	1	2	3	4
37	Muddled	0	1	2	3	4
38	Cheerful	0	1	2	3	4
39	Bitter	0	1	2	3	4
40	Exhausted	0	1	2	3	4
41	Anxious	0	1	2	3	4
42	Ready to fight	0	1	2	3	4
43	Good natured	0	1	2	3	4
44	Gloomy	0	1	2	3	4
45	Desperate	0	1	2	3	4
46	Sluggish	0	1	2	3	4
47	Rebellious	0	1	2	3	4
48	Helpless	0	1	2	3	4
49	Weary	0	1	2	3	4
50	Bewildered	0	1	2	3	4
51	Alert	0	1	2	3	4
52	Deceived	0	1	2	3	4
53	Furious	0	1	2	3	4
54	Efficient	0	1	2	3	4
55	Trusting	0	1	2	3	4
56	Full of pep	0	1	2	3	4
57	Bad-tempered	0	1	2	3	4
58	Worthless	0	1	2	3	4
59	Forgetful	0	1	2	3	4
60	Carefree	0	1	2	3	4

61	Terrified	0	1	2	3	4
62	Guilty	0	1	2	3	4
63	Vigorous	0	1	2	3	4
64	Uncertain	0	1	2	3	4
65	Bushed	0	1	2	3	4

Scoring Method for the POMS

The POMS is scored across the five negative mood states of Anxiety, Depression, anger, Fatigue and Confusion and the one positive mood state of vigour.

To score the questionnaire total the subscales score using the following key:

Tension -

Total questions: 2, 10, 16, 20, 22 (reversed), 26, 27, 34, 41

Depression -

Total questions: 5, 9, 14, 18, 21, 23, 32, 35, 36, 44, 45, 48, 58, 61, 62

Anger -

Total questions: 3, 12, 17, 24, 31, 33, 39, 42, 47, 52, 53, 57

Vigour -

Total questions: 7, 15, 19, 38, 51, 56, 60, 63

Fatigue -

Total questions: 4, 11, 29, 40, 46, 49, 65

Confusion -

Total questions: 8, 28, 37, 50, 54 (reversed), 59, 64

APPENDIX D

Interview guide

Introduction (not recorded)

Hi, my name is Elin Morris, first I would like to thank you for agreeing to take part in my study and this interview. I will be talking to women rugby union players about their coping responses in relation to aggression as part of my dissertation. The purpose of my study is to find out what causes people to become aggressive, how they think this affects their performance, and how they may cope with this during games.

Interviews have been employed so that I can hopefully gain knowledge from your experiences about which coping strategies you use during a match when in an aggressive state of mind. An additional purpose is to understand the thought process you go through when dealing with aggressive situations.

The information gathered from this interview will remain strictly confidential and will only be used for my dissertation. A dictaphone will be used to record the interview so that a typed transcript can be produced after the meeting, to obtain accurate information. Direct quotes may be used from the interview, but will remain completely confidential.

As a participant in this study, you have many rights, firstly your participation is completely voluntary, and you may feel free to refuse to answer any question or may stop the interview at any time. It is important that you realise that there are no right or wrong answers to the questions, as I want to learn from your own personal experiences. I would appreciate it if you could take your time in answering the questions, so that I can learn as much as possible from your experience, therefore if you are uncertain of anything, please ask me so that I can clarify it for you. If you wish to decline to comment on any of the questions, then I will move on to the next question. I would be grateful if you could answer the questions as honestly as possible, giving me as much information and detail as you possibly can.

If there are any questions you wish to ask me during the interview, please feel free, and I will try my best to answer them. The interview contains four sections relating to your feelings during a match, and your coping responses to them. During the interview I will refer to the term frustration, meaning the build up of angry emotions, and also the term aggression, meaning the verbal or physical actions directed towards yourself, your opponent, or an object (which may or may not be within the rules of the game). Also during the interview I may take notes for my own personal benefit. At the end of the interview there will be an opportunity

for you to add any additional comments or information which you feel are important which were not covered in the interview.

(Recorded)

Do you have any questions about anything we have spoken about? If not we will proceed with the interview.

Background information

The interview comprises of five sections, I would like to start by asking you some questions regarding your involvement in rugby, and also your views on aggression. At the end of this section I will however give you a definition of aggression, so that when I refer to it within the interview you know what I'm talking about.

1. How long have you been playing rugby?
2. What is your preferred playing position?
3. What is the highest level you have played at?
4. For how long have you played at this level?
5. What were your reasons for starting to play rugby?
6. What is it about playing rugby that has made you to continue playing?
7. In your own words, can you describe to me what you think being aggressive means?
8. What are your views on aggressive behaviour in sport?
Probe: Is it a good or a bad thing?
Probe: Do you think that aggressive behaviour is acceptable in sport?
Probe: Why?

Definition of aggression

“An aggressive act is an overt act that is either physical or verbal in nature and has the potential to physically or psychologically injure the target.” (Silva III, 1980, p. 177)

Feelings experienced during competition

During competition individuals go through different feelings, so during the next section I will ask you a few questions about the feelings you experience during a match.

1. Can you think carefully and explain to me how you feel during matches?
Probe: Do you feel any positive or negative feelings?
Probe: What do you think about?

2. Do your feelings change during the match?
Probe: If they do, why do you think that they change?
Probe: If not, why don't you think that they change?

3. Do you think that your feelings affect your behaviour?
Probe: Positive or negative behaviours?
Probe: Can you give me an example of behaviours which have resulted from these feelings?
Probe: Do you think that your behaviours are within the rules of the game?

4. How does carrying out these behaviours make you feel?
Probe: Do they make you feel more positive or more negative?
Probe: what do you think about?

Manifestations of aggression

Before you demonstrate any aggressive behaviour, there must be something to trigger your reactions, therefore during this section I am going to ask you some questions to find out what these triggers or causes may be.

1. Do you think of yourself as an aggressive person generally, even when not playing rugby?
Probe: Why?
Probe: Example

2. Do you think that playing rugby allows you to release built-up aggression?
Probe: Why? How?
Probe: Would you say that rugby is an outlet for some of your aggression?
Probe: If you didn't have rugby, what other ways would help you vent our anger?
Example

3. If others on the pitch make you feel angry or frustrated, what are the first things you start thinking about?
Probe: Who on the pitch tend to make you feel this way? (teammates, opponents)
Probe: What do others do to make you feel angry?

4. If you are feeling frustrated at any time during the match for any reason, how do you deal with it?
Probe: Do you tend to bottle it up or do you tend to react straight away?
Probe: Why do you think you deal with it in this way?

5. Do you sometimes feel that you are put under too much pressure?
Probe: If yes – What or who is it that makes you feel like that?
Probe: How do you cope in that sort of situation?

6. Have you ever observed others behaving aggressively when playing rugby?
Probe: If yes – Do you think this has had an affect on your behaviour? Why?
Probe: Can you give ma an example?

7. Have you ever found yourself planning to use aggressive behaviour?
Probe: If yes – Why do you think you do this?
Probe: Do you think it is necessary?

8. Do you use aggressive self-talk or behaviour to psyche yourself up?
Probe: Why?
Probe: Do you feel that if you didn't do this, you wouldn't perform as well?
Probe: Why?
9. Do the officials' decisions ever cause you to feel frustrated?
Probe: Why do think that is?
10. Do you think that when you become frustrated, you automatically feel angry or aggressive?
Probe: Why?

Consequences of aggression

Now that we have spoken about some factors which cause you to aggress, we will now talk about what affect these actions may have on your performance.

1. Can you explain to me how you think aggressive behaviour may have a positive impact on you and your teams' performance?
Probe: Example
Probe: Do you think that aggression is necessary for successful performance? Why?
2. Can you explain to me how you think aggressive behaviour may have a negative impact on you and your teams' performance?
Probe: Can you think how your behaviour may benefit your opponents?
Probe: Can you think of an example?
3. Has your aggressive behaviour ever lead to your coach taking you off the pitch?
Probe: If yes - How did this make you feel?
Probe: Do you think you deserved to be taken off for aggressive behaviour? Why?
Probe: Why do you think your coach decided to take you off?
4. Have you ever felt that you have lost concentration of the game as a result of thinking about being aggressive?
Probe: If yes – Explain to me how you think this may have affected your performance?

Coping with aggression

There are many different types of coping strategies used by performers when in stressful situations, so I will ask you questions in this next section to try and find out which coping strategies you employ to overcome these situations.

1. Can you explain to me what you think about when you are in a stressful situation?
Probe: What goes through your head?

2. When you're feeling frustrated or aggressive, what do you do to try and cope?
Probe: Do you try and forget about the situation, or try and solve it, or maybe you do some thing else?

3. Have you ever found yourself trying to forget about your feelings or thoughts?
Probe: Would you say that you try and block out situations so that you can concentrate on your game?
Probe: Why?

4. Have you ever used additional energy expenditure to cope in a stressful situation?
Probe: Increasing your efforts/work rate?
Probe: Do you try using more force to cope in stressful situations?

5. In a stressful situation, have you ever found yourself giving up or accepting the situation?
Probe: Do you sometimes feel that there is nothing more you can do in a situation?
Probe: Why? Example

6. When in a stressful situation, do you ever try and think about things which aren't related to that situation?
Probe: Why?
Probe: Can you explain that to me? Example?

7. Do you ever find yourself trying to positively reappraise a situation in your favour?
Probe: What do you think about?
Probe: If Yes – Do you find yourself using the situation to your advantage?

8. Do you think that your reactions are the same in similar situations?

Probe: Why?

Probe: What do you think your reactions are?

9. Do you ever feel that your performance is threatened in any way?

Probe: What do you think causes you to feel this way?

Probe: How do you think you react or cope in this kind of situation?

Probe: Can you give me an example?

Conclusion

Have you got any questions you would like to ask me regarding anything to do with the interview? Is there anything you feel you would like to add to the interview at all, something that you think may be important and that wasn't covered during the interview? That is the end of the interview, and I would just like to say thank you for your time, I really do appreciate your participation in my study. I will now go away and transcribe the interview to accurately record everything that we have spoken about, and obviously keeping your identity completely confidential.

APPENDIX E

Participant 3

Interviewer

Interviewee

Do you have any questions about anything we've just spoken about?

No.

We'll just start the interview then, alright?

Yeah.

The interview comprises of five sections, I would like to start by asking you some questions regarding your involvement in rugby, and also your views on aggression. At the end of this section however, I will give you a definition of aggression so that when I refer to it within the interview you know what I'm talking about.

So how long have you been playing rugby?

About five years.

What's your preferred playing position?

Number 8.

What's the highest level you've played at?

I played for England students for two seasons, and Wales A as well. They're the same sort of level.

How long did you play at that level for?

Two seasons with the students, and one season with Welsh A.

What were your reasons for starting to play rugby?

I came to UWIC as a hockey player, I went to hockey training and really, really hated it, just didn't get on at all, and I knew some girls who played rugby so they kind of just dragged me along eventually.

Okay, what is it about rugby that has made you continue playing?

Just really, really enjoy it, I enjoy the social side of it as well, and UWIC I think has a really good atmosphere, erm it's quite hard to drop out because you've always got people saying, we've got this session and this session, so you just kind of keep going.

Okay, in your own words, can you describe to me what you think being aggressive means?

Just being physical I think and doing everything one hundred percent when you're playing.

What are your views on aggressive behaviour in sport then, in general?

I think everybody needs to be slightly aggressive, especially in rugby, erm to be good, but maybe there's other sports that you don't need to be so aggressive for, I think it's a good thing, I know that sometimes people go over the top and there has been incidences, but generally I think it's quite a good thing, and most sports people are aggressive to a certain extent.

Okay, right a definition for aggression then, aggression is an overt act that is either physical or verbal in nature and has the potential to physically or psychologically injure the target, so that is what I'll be referring to during the interview.

During competition individuals go through different feelings, so during the next section I will ask you a few questions about feelings you experience during a match.

Can you think carefully and explain to me how you feel during matches?

Erm, generally as soon as we start warming up I know whether I'm going to play well or not because although I'm an aggressive person I think, I'll be quite calm, I'll seem quite calm, and the calmer I feel I think sometimes the better I play, because I've got the aggression in side of me, if I need to be showing that I'm aggressive then that's me trying to psyche myself up, which means I'm not going to play so well. But generally I think I'm quite aggressive within rather than obviously to everyone else, especially at the beginning.

So what sort of thing do you think about?

Erm, I'm always thinking about the first hit, that I want to hit them harder than they'll hit me, that's a big one. If I do everything well the first time then generally through the match I'm

straight on to confidence and builds my confidence and stuff, so I look to make a fuss, big hit first good ball carry and the first line-out and scrum I want to be in as well.

Do your feelings change during the match?

Yeah, I think they change, depending on how the game's going, erm if we're winning and I'm playing well then I'd still come across as quite calm although I'd try and be aggressive in tackling, and aggressive when I'm playing, but if things are going badly, erm I think it will start to show more that I'm getting worked up and I let more things get to me, erm which the more worked up I get, obviously my game then starts to drop off a bit.

Okay, do you think that your feelings affect your behaviour?

Yeah definitely, erm.

How does it effect it, can you give me an example?

I just think sometimes that if I'm not playing well then I'll get more aggressive to try and make myself play better, but the more I do that, then the less well I play.

So when you get more aggressive, what sorts of things do you do?

If I get more aggressive, I maybe do things off the ball rather than things within the rules of the game maybe, you know if I see someone in a ruck, then I'll put my foot on them to get them out of the way of the ball, whereas if it's going well, and I'm not getting the feelings, I'm feeling good or whatever, I maybe would make the effort to step over them to get the ball out, but if I think we're going badly, and their giving us a bit of a dig, I'll give them a bit of a dig back in a ruck, and maybe I wouldn't do that if things were going well.

So how does carrying out theses behaviours make you feel?

I just get more and more worked up to be honest. Erm, I think maybe in a negative way, erm but if something good happens then, I think playing up at UWIC it's quite good team spirit if everyone's behind you, I do start to calm down and if we score a try or we get a good scrum, even though if I've been really worked up, I can then calm down, and be like, no it's okay things aren't that bad, and than I'll calm down a bit.

Before you demonstrate any aggressive behaviour there must be something to trigger your reactions, therefore during this section I am going to ask you some questions to find out what these triggers or causes may be.

Do you think of yourself as an aggressive person generally, even when not playing rugby?

I don't think I am, but other people might say differently, I don't know why. I think I'm just generally aggressive whatever sport I play, even if we just go for a knock up at tennis or something, I still want to win. You know if we go in the gym I'll just be looking at the other persons, what their doing on the bike or on the running machines, I think it's more competitiveness maybe that comes across that I'm aggressive. I don't think I'm that aggressive no, not when I'm not playing rugby.

Okay, do you think that playing rugby allows you to release built-up aggression?

Erm, yeah I suppose if you've just got something you want to get out, if you can get it out on the pitch, it's an easy way, maybe other people would deal with it in a different situation, but personally I don't think I do that, I don't let thing build up and build up and bring it out on the pitch, I'm generally the same whatever's happened before or after the game.

So you would really say that rugby is an outlet of aggression for you?

Not for me personally, no.

Okay, if others on the pitch make you angry or frustrated, what are the first things you start thinking about?

Erm, the thing that gets me most frustrated I'd say, is if I know the team isn't playing to their full potential, or if we start playing badly and we drop to a level of a different team that frustrates me. The first thing I'm thinking about then is how, what we're going to change to make it right. Erm, but if that doesn't work then and it doesn't change pretty quickly then I get frustrated with myself, erm, and I can get frustrated with my teammates, although I try not to let them see that, because obviously that's going to make them feel worse.

Okay, if you're feeling frustrated at any time during the match for any reason, how do you deal with it?

Oh, I pretty much react straight away, erm.

So you don't bottle it up?

No, no, I'll try to, for our own team, I try to take my aggression out on the other team, but then if I can see its people in our own team that aren't playing well and their not playing to how well they can, then I find it really hard not to say to them, come on, you know, and the more aggressive I guess it comes across that I'm having a go at them, but I'm not, I just want them to play to their ability, like I don't want them to let themselves down by playing badly.

So you're just trying to encourage them?

I'm just trying to encourage them, but yeah the more frustrated I get the less that comes across maybe, that I'm being aggressive toward them, but I'm not, I just want them to play as well as they can.

Do you sometimes feel that you're put under too much pressure?

Yeah, at the minute we've got these big games coming up, we've all got the pressure every time we go out to play, we've got the pressure that we've got to keep, you know that, this is your chance to keep your share, this is your position and you think sometimes, when you've got that much pressure on you, you're aware that you cant make any mistakes, you pick up on the smallest thing, you're like, oh my god, I did that so badly, but you actually haven't, it's just you're picking too much fault on yourself, because the pressure you're being put under that you've got to play well to keep your shirt for the next game.

Do you sometimes feel pressure from outside the games?

Erm.

Like from other people?

From other people, erm, the only time I feel pressure, is if I know people are coming to watch, you know and their like, I hear you're a pretty good side or whatever, then I think, oh my god, we've got to play well today, because people have actually come to watch, or you know the hockey girls have come to watch us, you think that's is, we've got to play well today because they'll all walk of thinking we're not very good.

Do you ever feel pressure from your coach or maybe parents?

Erm, not from my parents, they don't really understand I don't think, they'll just be like, aw never mind if I lost, and I'd be like never mind, it's like really important. The coaches are just put pressure on us to go out and win, and the pressure of keeping your place for the next game, and they do that I think to try and make us play better, but sometimes I don't always think that helps.

Have you ever observed others behaving aggressively when playing rugby?

Erm yeah definitely, when we play in the Welsh league, I think some of the teams on the Sunday can be quite dirty, and we'll get stamped on in rucks for no reason, erm, they'll go out especially, I know some teams go out to wind up certain players so that we end up getting sin binned, so that we're down to like seven or six maybe in the pack, and then they'll try and take advantage of that. I think there are certain sides that are definitely very aggressive, erm, in the wrong way.

Okay, does that make you more aggressive then?

Erm, yeah, I find it really hard if someone's having a niggle, I'll cope for so long and just keep it in, I'll cope for so long having someone stand on me or you know, put a sly punch in here or there, and after not very long, I'll flip, and when I loose it, that's it, I'll end up doing something that will be seen by the referee and be sin binned maybe, which isn't too good.

Have you seen players being aggressive in a match you've been watching, not particularly been playing in?

Yeah, when I've watched the UWIC boys playing there's generally a punch up most weeks, and they know which teams come down and do that as well, but generally I don't think rugby is as bad as other sports, and it normally seems to die down quite quickly, so it's just kind of accepted because it's a contact sport, you know it is aggressive generally, so I'd say you've got to accept that sometimes it will boil over.

Would you say that you've seen players being aggressive, and you've thought, maybe I should do that?

No, not really, I don't really look at other people being aggressive and think, aw I should be like that, I mean I don't know how or why I'm aggressive, but it's not from watching other people being like it.

Okay, it's just like your own reactions, yeah?

It's just my own reactions, yeah.

Have you ever found yourself planning to use aggressive behaviour?

No, I can't, I find it's not something I can plan, it just happens. So maybe I can't control it, but erm, I'd never go on the pitch to purposely injure someone or hurt them, I'd go out to hit them really hard, and they'll think, aw she's hit me, and they'll take a few seconds to get up, be a bit winded, but I would never go out to injure someone, so I wouldn't say I really plan it.

So you tackle them hard?

I'd tackle them hard, and hit them on the set piece and stuff, but I wouldn't ever go out to injure someone.

Okay, do you use aggressive self-talk or behaviour to psyche yourself up?

No, like I said before, I play better when I've warmed up quite quietly and don't need to psyche myself up. Erm I think you just kind of get that feeling inside that you know that you've got the aggression, you don't need to build it up particularly, it's all there.

Okay, do the officials' decisions ever cause you to feel frustrated?

Yeah definitely, I think that's one of the things that winds me up the most. Sometimes, especially when we start to get frustrated in our own game, then we give away a lot of penalties and someone will ask the referee and we'll get put back ten for talking back, and it's things like that, that frustrate me more than anything, and that can cause me maybe to be more aggressive toward the opposition, because of what the referee, because of his decisions.

Okay, can you give me an example of maybe a situation you've been in, like what you think the ref has made a wrong decision on?

Erm, at the start of the season, I gave a penalty away for what the referee said was kicking someone in the head in the ruck, which I definitely, definitely didn't do, so I had a bit of an argument with him and he put the ball down, and put us back ten for arguing, and then I kicked the ball away and that was a sin binning as well, so something I didn't even do what he gave a penalty for, you know before, and then later I'm off the pitch for ten, and there was no reason for that what so ever, if we had just gone back and gone, okay well decision accepted, and played, we would have had fifteen people on the pitch still, and probably got the ball back within a minute of, you know, of losing it. So that's when I get really frustrated, and there's obviously nothing you can do about it, I know that's easy to say but, actually doing it, sometimes can be hard.

Okay, do you think that when you become frustrated, you automatically feel angry or aggressive?

Yes, the way of my frustration coming out is, I just get aggressive, I get really, really worked up, and I know I've got to control it, but the more I try and control it the less I can.

Okay, do you think that has a reversal effect, so the more aggressive you get, or the more aggressive you feel, you get more frustrated as well?

Yeah definitely, I hate it when there's someone having a niggling me and it really, really frustrates me, but I know if I concentrate on kind of getting them back sort of speak, that I'm just going to be worse for it so I've really just got to be like, no just keep playing, keep playing, but it's really hard when you see them, and you think I just want to smash them now because they were niggling at me earlier, but yeah, I just get more and more frustrated as I get aggressive.

Okay, now that we have spoken about some factors which cause you to aggress, we will now talk about what affect these actions may have on your performance.

So can you explain to me how you think aggressive behaviour may have a positive impact on you and your teams' performance?

Erm, if I'm feeling aggressive and I'll obviously make a big tackle or do a good run because of it, then that's our positive, because obviously the team is going to see it and think, yeah that was good, and they want to like follow and do the same thing, so I think in that way it can be good, but it's got to be controlled aggression rather than going out and punching people and stamping on people for no reason.

So you just use your aggression in your performance, like in your tackles, in the scrums or whatever?

Yeah, yeah.

Okay, and you think that's necessary for a successful performance, yeah?

Erm, yeah, I think for me, if we've got our scrums aggressive and we hit the opposition, and we really, really want to win the ball, we can turn the ball over, and we're more likely to get it than if we're just there having a bit of a laugh, and kind of flopping into it, we're never going to do anything, so it's definitely, I think everyone needs a certain amount of aggression to be successful.

Okay, can you explain to me how you think aggressive behaviour may have a negative impact on you and your teams' performance then?

Erm, well if you end up getting a sin binning, you're off the pitch for ten minutes then obviously you're leaving your teammates a player down, erm, and I wouldn't want people to be seeing me going and punch someone, and stand on someone, and think it was a good thing and try and do that as well.

Okay, has your aggressive behaviour ever lead to your coach taking you off the pitch?

I've never been taken off, but I think there's been times when it could have been considered, I think we get two yellow cards in the Welsh league and we're on a ban for the next game automatically, I've already spoken to the coaches and they've said this season, that if people are on for a ban and there's a big game coming up then we will be taken off if we've got one card already, we will be taken off as soon as the previous game's won, so that we've

definitely going to be available for the next one, so in that sense than yeah, I think they have considered it , but it hasn't happened yet, luckily.

Do you think its better that maybe sometimes, if the coach takes a player off the pitch if they get too aggressive because they're going to end up in a worse situation?

Yeah, I've seen it happen to other players on our team, it's just never happened to me, and sometimes I think it needs to happen because all you're going to do when you get overly aggressive, and if the coach thinks it's that bad to take you off, erm, it's giving away penalties, it's giving away, you know maybe take ten on a yellow card, and so you're not going to be helping the team anyway.

So it's just going to be detrimental to performance then?

Yeah, so it's detrimental to performance and, yeah I think they should be taken off, yeah.

Okay, have you ever felt that you have lost concentration of the game as a result of thinking about being aggressive?

No, because I don't really think about being aggressive, it's not something I really think about when I'm playing, the only time I'd say that I'd lose concentration is if someone's purposely winding me up and I have to try and think, no just concentrate on the game rather than concentrate on getting them back, and because I know as soon as I'm concentrating on one player, that they've achieved their aim because I'm out of the game, and so that's the only time I'd say I lose concentration really.

Okay, there are many different types of coping strategies used by performers when in stressful situations, so I will ask you a few questions in this next section to try and find out which coping strategies you employ to overcome these situations.

Can you explain to me what you think about when you are in a stressful situation?

Erm, I do get really worked up and in my head I'm just thinking, we've got to do this right now, but obviously thinking that and doing it are, erm, are different things. I do try and keep calm to a certain extent, if I feel really, really frustrated I don't want it to affect other people looking at me thinking, oh my god she's lost her head or whatever, so I do try and stay calm as much as I can, for other people sake, but inside I'm absolutely like boiling up, desperate to go crazy but I've just got to try and control it.

Okay, when you're feeling frustrated or aggressive, what do you do to try and cope?

Erm, I try and take it out on the opposition first chance in a tackle or at a scrum or something like that, erm, I think that's the best way, and if I'm feeling really, really frustrated about something, within two minutes my whole, I can completely change how I'm feeling, just like doing one or two good things, and then I'd think about what's just happened, and what I'm going to do in the next point of contact or breakdown, rather than how frustrated I was feeling before.

So you'd say that you'd try to solve the situation, rather than sort of just, forget about it?

Yeah definitely, I'd try and do a big hit or something, that's when I start doing something, like put my boot on somebody in the ruck, is if not had the chance to get that aggression out, erm, but I'd generally try and do it like that, rather than just leaving it there, I can't just think something in my head and calm myself down, I've got to go and physically do something to calm myself down.

So would you say that you've ever tried blocking your feelings at all, like blocking them out?

Erm, not really, I think during the game my feelings change during the game quite a lot anyway, erm, but I don't really try and block them out, it's due to the situation and circumstances what's happened or what's about to happen while they change, rather than blocking anything out.

Would you say that you use additional energy expenditure to cope in a stressful situation?

Yeah, because I definitely would say I put more effort in and my work rate maybe increase for a bit, because I'm trying to get rid of this aggression, erm, so yeah I suppose I'm using more energy.

Would you say you use more force in contact?

Yeah, I'd try and make a massive hit rather than just, I'd never accept a tackle, I would just try and absolutely smash them.

Okay, in a stressful situation, have you ever found yourself giving up or accepting the situation?

No, definitely not. Erm, no I'd never accept it, I'd always go out and try and change it, because if I'm stressed, it's because something's not happening right and I'd want to change it so it would be better.

When in a stressful situation then, do you ever try and think about things which aren't related to that situation?

Erm, I suppose if I know somebody's coming out to get me, and sort of stamping on me and winding me up, then I maybe start thinking about like the next line-out or scrum, or the next backs move, but I'd never think further than that ahead, I wouldn't be thinking of anything off the pitch, or not involved in the game, it would always be something else to do with the game, and hopefully something's going to happen in the next two or three minutes, rather than something's going to happen, you know, I wouldn't be thinking, aw you know, I'll calm down at half time, if half time's like twenty minutes away, it has to be something that's happening pretty soon.

So you think you'd keep focused on the task?

Yeah, I'd try and keep focused as much as I could.

Okay, do you ever find yourself trying to reappraise a situation in your favour?

Yeah, because I think if they're winding me up, then that's going to be more positive for us, because it means I'm just going to go in and play even harder, so it's a negative for them to go and do that, it's a negative thing for them, because they're just going to get smashed.

Okay, so you'd use that to your advantage then yeah?

Yeah definitely, yeah.

Do you think your reactions are the same in similar situations?

Erm, yeah, I would generally go through the same sort of processes, how I get wound up, and what I do to get rid of that frustration. Erm, the task I find hardest is if we don't play well, and if things don't change and we have a really bad game, even if it's not me, it's just a general team thing, I'll be frustrated for a long time afterwards, like the whole evening, I find

I can't go out and be happy, I'll be in a bit of a grump for a while about it, but I think I overanalyse things, I'll sit and think about every little thing that happened, and when the other people think it's the end of the game and they'll just walk off and that's the end of it, I go through every little thing after every game, like what I've done well what I've done badly, and I think I'm overcritical a lot of the time.

So do you with time just get over what you were feeling about that game, or do you take those feelings into the next game possibly?

I'd try and take the positives in, and I'm quite a confident sort of player, I need to be confident but playing well to keep that up, if I have a bad game, I'll maybe struggle a bit at the beginning of the next game, but if I know I've had a bad game, I know I need to put more work in, in training and those two sessions between then and the next game, so to give me a bit more confidence again.

Okay, do you ever feel that your performance is threatened in any way?

Erm, what by the opposition?

Yeah, it can be.

Threatened, erm.

By anyone really.

To make me not perform so well, erm, I think teams will sometime niggle and do little things to try and wind me up, so that I'm not so focused on the game, but I'm normally aware that that's going to happen so I'll try to ignore it, which sometimes I can ignore quite well. If I'm playing well, then it's harder for them to niggle me, but if I'm having a bad game than I think it can affect me more.

Is that because you're more frustrated to begin with yeah?

Yeah, yeah, because I go into the game more frustrated, I think sometimes I'm told by the coaches that I've got to play well to keep my shirt and maybe I haven't had such a great game the game before, and I obviously go on with more pressure on, so then yeah, I think my performance maybe isn't going to be so good.

Have you got any questions you'd like to ask me, regarding anything to do with the interview?

Erm, no not really.

Okay, is there anything you feel you would like to add to the interview, something that hasn't been covered?

Erm, yeah, I don't know if this is going to be of any use to you, I don't know, but I just think for me, for aggression I need to be at a certain point, and if I'm on that point, it's just right and I'll play really well, but if I go slightly passed that and its too much, my head goes, but if I'm not aggressive enough then I wont play well because I'm too lax or whatever then. So I find that I've got to be on a certain point, but if I go slightly above or below it, I won't play as well.

So if your head goes, like you said just then, do you tend to aggress more?

Yeah, I'll be more aggressive and get a sin binning or something stupid, like standing on people ridiculously, but I find I've got to be at a certain point so, for me to be playing well, I think I've got to accept that sometimes I will flip a bit too much, but then because I'm not at that point, and I'm under aggressive almost, erm, I wont play well anyway because I wont be focused enough on the game. So I just take it that sometime's I will do what I shouldn't do but if you weigh it up then, to be playing well for ten games, I may have one where I loose my head, I just kind of accept that, and I don't think much would ever change that.

Anything else?

No.

Okay, that the end of the interview then, I'd like to thank you for your time, I really do appreciate your participation in this study, I'm now going to transcribe the interview, record everything you've said accurately, and obviously keep your identity completely confidential.

Thanks.

Thank you.

APPENDIX F

Participant 1 – Case Report

According to participant 1, her initial involvement in rugby was caused by parental pressure, however the participant disclosed that she had been playing rugby for up to 12 years, and has played at International level. When asked what aggressive behaviour is or means, the participant outlines the meaning of assertion, stating that it is “being physical in contact towards others... but not to the point of causing deliberate harm to players.” However the participant explains that aggressive behaviour is fine as long as it is within the rules of the game, tackling somebody really hard is fine as long as you don’t go out of your way to injure the opponent, suggesting that if you injure your opponent by accident, by acting within the rules of the game, it’s fine.

During matches the participant views herself as quite calm normally, but does become aggressive and wound up. According to the participant, her feelings depend on her own team, her own performance and the opposition, as they can cause her to feel angrier. Also if there is foul play by the opposition, and the official seems to miss it or ignore it, these also trigger angry emotion for the participant. The participant reported that this anger can cause her to feel frustrated and more aggressive, which she tries to use in a positive behavioural manner, by hitting the opponents harder in the contact area. The participant believes that this change in behaviour makes her feel more positive about her game, and allows her to focus on her roles within the game.

The participant stated, “If I haven’t played for a while, then I get quite frustrated,” suggesting the use of sport as a cathartic purpose. Also the participant revealed that she tends to bottle up her frustration, to keep calm, and so that it doesn’t affect her performance as much. High expectations cause the participant to feel under pressure; however she uses concentration on the task to feel less pressured and more focused. The participant suggested that she has modelled a performer after observing them behaving aggressively, but argued that she only models behaviour which she believes to be within the laws of the game. Also the participant claims that she plans to use aggression before playing a match, but only to be physical in contact, not to injure others, as she believes that aggression is part of the game, and the roles you must go through.

The participant maintains that the use of aggression may be a positive factor for performance, as it allows players to be more physical and maintain possession of the ball. However the participant also recognises that aggression can be detrimental to performance, causing players to loose their temper and being penalised for their actions. According to the participant she constantly reappraises situations, thinking about her roles and responsibilities and tries to keep calm. Also the participant contends that she would never give up in a stressful situation, suggesting that she approaches each situation to try and solve it, rather than trying to change her feelings or accepting the situation, and giving in.

Defining of aggression

Frustration from others

The frustration-aggression hypothesis

Aggression – positive effect on performance

Aggression – negative effect on performance

Approach coping

Avoidance coping

Participant 2 – Case Report

Participant 2 has been involved in rugby for just over a year and plays because she enjoys the game, the social side and fitness aspect involved. The participants' preferred position is prop, and plays at club level. When asked to outline the meaning of aggression, participant 2 identifies two types of aggression, **controlled aggression, which is acceptable in sports**, and "aggression as in giving someone a clout," which is when an individual get carried away. The participant admits to have gotten carried away in the past, committing behavioural offences which are outside of the rules of game.

Participant 2 views herself as quite calm when starting a match, but when the first scrum is set up, she feels more aggressive, and when she does a mistake, for example missing a tackle, she believes that she **channels her feelings of aggression into her next tackle** to make up for the last one. When asked how feelings experienced can affect behaviour, participant 2 admits to be able to control her actions for a certain length of time after someone has caused her to feel annoyed, but will eventually react using verbal abuse, or giving the sly elbow or knee at the ruck, which leads positive feelings of getting one over on the opposition. It was stated by the participant that she doesn't believe that she is aggressive generally, but if there is something bothering her, then she will release her feelings of aggression through playing rugby. Punching a bowling bag is another way the participant likes to vent her feelings, but sometimes likes to have time alone to calm herself down.

Teammates can cause participant 2 to feel angry if they don't work as hard as they can to assist the team, the **opposition** are also able to cause these feelings by playing better than her, or being aggressive towards her. The teams' **coaches** can also cause the participant to feel annoyed and pressured by shouting negative things from the sideline, also the **officials'** decisions frustrates the participant by wrongly accusing players. The participant listens to a "rage playlist" to psyche herself up before a match, and believed that **frustration leads to aggression and vice versa**. It is believed by the participant that rugby give too many opportunities for the use of aggression, but that is the nature of the game and it is easy to aggress on the pitch.

Participant 2 believes that aggressive behaviour can be beneficial for performance if it is controlled, and used within the rules of the game. However, it is also believed that if aggression goes too far, to the point of fighting it can have a negative impact on the teams' performance, with the loss of concentration on performance, to retaliate on the opposition.

When in a stressful situation, the participant refers back to training sessions to ensure that she executes phases of play correctly without mistakes, and tries to focus as much as possible on the task. The participant has found herself trying to block out her emotions by again focusing on the task ahead. According to participant 2, she would never give up or accept a situation, never mind how difficult, she finds it much more beneficial to increase work rates and keep trying to solve the situation. The participant does not believe that she tries to positively reappraise situations, but believes that her performance may be threatened by opponents outperforming her, or fighting for her position on her team.

Defining of aggression

Frustration from others

The frustration-aggression hypothesis

Aggression – positive effect on performance

Aggression – negative effect on performance

Approach coping

Avoidance coping

Participant 3 – Case Report

Participant 3 started to play rugby because her friends did, and has continued to play over the past five years due to the good atmosphere within the team, the enjoyment she gains from it, along with the socialisation. She plays at number 8, and has represented England students for two seasons and Welsh A for one season. The participant believes that being aggressive means **being physical** and that it is needed when playing rugby.

At the beginning of a game, the participant feels that she is calm, although she does have the aggression inside of her, ready for when she believes it is required. The participant tends to keep calm throughout a match and uses her aggression in the contact areas, but when she feels that she isn't playing as well, her aggression tends to show more, which affects her performance, also the more she tries to correct her performance, the worse things get. When the participant becomes aggressive, she will behave outside the rules of the game, for example stamping on an opponent. According to the participant, she gets "**more and more worked up**" even after behaving aggressively, possibly demonstrating the **frustration-aggression hypothesis**.

The participant does not believe that she is an aggressive person outside of sport, but believes her competitiveness can be mistaken for aggression, and that she doesn't generally use rugby to vent her anger. **Opponents** can cause the participant to become aggressive if they seem to have set out to aggravate her team, to try and make them react. **Teammates** can also cause the participant to feel frustrated if they are not performing to their full potential, also pressure from **coaches** can affect the participant's performance to play well to keep their shirt for the next match. Also pressure from spectators can cause the participant to make mistakes which lead to frustration. The **officials'** decisions often lead to frustration for participant 3, for example if the official gives an incorrect decision which causes the participant to become more aggressive towards the opposition. The participant believes that she does not bottle up her feelings, although she tries to, she tends to react straight away. Her behaviours are not planned, they are just reactions that happen, and the only thing she plans is to be very physical in contact.

According to participant 3, aggressive behaviour is positive for performance as long as it is controlled and used **in the contact area of the game**. However it is believed that aggressive behaviour may have a negative affect on performance if a player ends up getting **sent off the pitch**, leaving the team a player down. Participant 3 suggests that as a result of an opponent winding her up, she may **loose concentration on the game**, which can again be negative for performance.

When feeling frustrated or aggressive, the participant will try and take it out on an opponent, first chance she gets, in a contact area. Therefore the participant tries to use problem solving strategies, such as **additional work rate and force in contact**, rather than emotion coping, “I can’t just think something my head and calm myself down, I’ve got to go and physically do something to calm myself down.” The participant always remains **focused on the task**, possibly **positively reappraising** the situation, but does not try to block out feelings, give up and accept situations, or let the mind wonder and loose concentration of the game.

Defining of aggression

Frustration from others

The frustration-aggression hypothesis

Aggression – positive effect on performance

Aggression – negative effect on performance

Approach coping

Avoidance coping

Participant 4 – Case Report

Participant 4 started to play rugby, as it is a game her family is involved with, she has played for six years altogether, and her preferred playing position is flanker and represented her county for two years. The participant has continued with playing rugby over the years due to atmosphere and team work involved within the set up. According to the participant aggression is being angry through **physical** or verbal behaviour, and that aggression is accepted in sport as long as it is **within the rules of the game**.

The participant believes that her feelings are positive the majority of the time to help give a good performance, and that negative feelings aren't beneficial. It is thought by the participant that her feelings change due to acts towards her, outside of the rules by opponents, which causes negative feelings towards them. Using an **aggressive drive in contact** is important in participant 4 eyes, and without it performance level will decrease, leading to negative feelings.

Participant 4 does not view herself as an aggressive person generally, and only feels aggressive when provoked, and uses rugby as an outlet of aggression within an environment where it is acceptable. If that participant is unable to play rugby to vent aggression, some other form of physical exercise is used such as running. **Teammates** can cause participant 4 to feel frustrated if they are not performing as well as they should, **opponents** also tend to aggravate the participant by using illegally behaviour, for example a high or late tackle. **Officials'** also frustrate participant 4 if they seem like they don't know what they're doing and they disrupt passages of play for no reason.

Planning to use aggression in contact and being really physical is something that participant 4 does, but never plan to deliberately harm someone. Participant 4 believes that psyching yourself up before a match is important, so that you can be prepared for the physicality of the game, but that most of the aggression occurs just before an incident. According to participant 4, she tries not to react straight away to everything that frustrates her, but tries to use it within the contact area, however if an opponent acts outside the rules, then an instant reaction usually follows. Participant 4 believes that her **frustration leads to aggressive behaviour**, but not necessarily the reverse.

It is thought that aggressive behaviour has a positive effect on performance, as it can help individuals become **more physical**, however **retaliation** as a result of feeling aggressive can result in **penalties** which is detrimental to the performance of the team. Aggression can, according to participant 4, cause performers to **make mistakes** or it can help performance. Mistakes has caused participant 4 to **loose concentration** of a game, which were a result of feeling aggressive in the first place.

To cope in stressful situations, participant 4 uses **increased work rate** to resolve problems rather than thinking things over, and trying to cope emotionally. **Thinking of what needs to be done and focusing on the game** is one way the participant copes in a game situation, and **blocking out information** that is not going to help performance. Competing for positions within the team causes participant 4 to feel that her performance is threatened, and also if her opposition player is an international or very experienced player, which cause the participant to want to outperform opponents and teammates.

Defining of aggression

Frustration from others

The frustration-aggression hypothesis

Aggression – positive effect on performance

Aggression – negative effect on performance

Approach coping

Avoidance coping