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The Relationship Between Rugby and Off-Field Physical Aggression: A Pilot Study

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Counseling, Clinical, and School Psychology

by

Marina Ann Ness Landheer

Committee in charge:

Professor Steve Smith, Chair

Professor Melissa Morgan Consoli

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September 2016

The dissertation of Marina Ann Ness Landheer is approved.

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July 2016

The Relationship Between Rugby and Off-Field Physical Aggression: A Pilot Study

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ABSTRACT

The Relationship Between Rugby and Off-Field Physical Aggression: A Pilot Study

by

Marina Ann Ness Landheer

Sports are one of the only places where intentional acts of aggression toward another person are accepted and even encouraged at times. In collision sports such as rugby, where aggression is at the crux of the game, many wonder if these athletes are inherently more violent and tend to engage in off-field violence more frequently than non-athletes or non-collision sport athletes. Literature is mixed on this topic and no longitudinal or qualitative study has been conducted that examines off-field aggression in collision sport athletes.

The primary objective of this study is to explore the relationship between participation in rugby and engagement in off-field aggression. A convergent, parallel, mixed methods research design was used in this study. The participants in this study were college-age male rugby players who were competing on a club rugby team affiliated with a mid-size community college in the Western United States. A longitudinal self-report survey was administered at three time points in order to evaluate differences in mean scores on aggression and various descriptor variables

across time. The survey data were corroborated with qualitative interviews from five rugby players who participated on the team during the season surveyed.

Results from this study cannot conclude that participation in rugby will increase or protect against the likelihood of off-field aggression. Although there appeared to be no change in self-reported scores of aggression over the course of a season, some players acknowledged that there may be aspects about participating in rugby that might contribute to off-field aggression. However, every player reported gains that were also associated with participation in rugby. Thus, the question of whether participation in rugby impacts the likelihood of off-field aggression cannot be easily answered. It is likely that there are complex interactions and influences that impact the relationship between rugby and off-field aggression.

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Chapter I

Introduction

Sports are one of the only places where intentional acts of aggression toward another person are accepted and even encouraged at times (Weinberg & Gould, 2010). In collision sports, such as rugby, football, or hockey, intentional aggression with the purpose of inflicting injury (hostile aggression) is at the crux of the game (Silva, 1983). Due to the aggressive nature of these collision sports, some might wonder if these athletes are inherently more violent and tend to engage in off-field violence more frequently than non-athletes or non-collision sport athletes. Athletics provides an unusual platform for researchers to examine such questions of human aggression in a way that would not otherwise be legal, ethical, and/or socially appropriate.

Although there is an abundance of literature on the topic of sports and aggression from a variety of disciplines, gaps in the literature arise from a lack of complexity in measuring this topic. One issue is that there are no standardized measures of aggression for the sporting context, which makes it difficult to draw any conclusions (Kimble, Russo, Bergman, & Galindo, 2010). Further, the literature on sports and aggression relies exclusively on quantitative research designs, thus, limiting the method of inquiry to a single perspective and theoretical approach. There have been no longitudinal or qualitative studies conducted on this topic.

Another major weakness in the literature is that very few studies examining the topic of off-field aggression in collision sport athletes account for the multitude of confounding variables in their statistical analyses. The context of sports is riddled with confounding variables, and by not considering these, data may be misrepresented and

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misinterpreted. For example, many researchers include both male and female athletes as participants in studies of aggression and interpret the results based on overall findings without considering gender differences, despite the fact that aggression is typically manifested and expressed differently in males and females (Keeler, 2000; Silva, 1983). It is likely that these pooled results will lead to flawed, gender-biased interpretations. Until further studies with better methodology are conducted and replicated, it will remain unclear what the relationship is between participation in a collision sport and off-field aggression (Kimble et al., 2010).

For the proposed study, I will examine the question of whether collision sport athletes, specifically male rugby players, might be more aggressive if they did not participate in rugby. In other words, does playing rugby serve a protective function for this sample of athletes? In addition to the primary research question, I will also explore what messages rugby players receive about off-field aggression, and what mechanisms rugby players perceive as contributing to and/or protecting against off-field physical aggression. A convergent, parallel, mixed methods research design will be used to explore this research question by including a pre-post survey along with a retrospective qualitative interview.

Implications for this study include creating interventions for increasing coping skills and emotional competence in collision sports - a context where frustration and thus, aggression is frequent and inevitable. Further, if it is determined that there is a relationship between participation in collision sports and off-field aggression, psychoeducation for such athletes and coaches regarding the ramifications of aggressive behavior may be useful. In addition, it is possible that this study may help

dispel the perceived negative social impact of college-age men participating in collision sports.

Research Questions and Hypotheses

The present study is intended to examine a primary research question and related questions, which are intended to inform the primary research question. The primary objective of this study is to explore the relationship between participation in rugby and engagement in off-field aggression. An additional purpose of this study is to examine rugby players' perceptions about how their sport has impacted them, what messages they have received about off-field aggression from their coaches, teammates, the culture of rugby, and their parents, and what factors might contribute to, or protect against off-field aggression. The specific research questions and hypotheses are as follows:

Question 1. Is there a relationship between participation in rugby and engagement in off-field aggression? (Quantitative and Qualitative Research Questions)

Hypothesis 1.1. I hypothesize that current rugby players will have lower scores on post-season reactive aggression and higher scores on instrumental aggression compared to their pre-season scores.

Hypothesis 1.2. I hypothesize that data from the start of season will reveal a relationship between emotion regulation and reactive aggression, whereby emotion regulation will be low and reactive aggression will be high, and post-season data will reveal that scores of emotion regulation have increased and reactive aggression scores decreased.

Question 2. What perceptions do rugby players have about whether they experience a cathartic effect resulting from their participation in rugby? (Qualitative Research Question)

Question 3. What messages do rugby players receive about off-field aggression? (Qualitative Research Question)

Question 4. What factors do rugby players' perceive may contribute to off-field aggression? (Qualitative Research Question)

Question 5. What factors do rugby players' perceive may protect against off-field aggression? (Qualitative Research Question)

Chapter II

Literature Review

For the present study, I attempt to answer the question of whether participation in rugby serves a protective function for otherwise aggressive college-aged males. That is, are male athletes who participate in a collision sport less aggressive than their similar, but non-collision sport peers? In this chapter, aggression and levels of contact sports will be defined, and theories of aggression will be discussed. Further, examination and limitations of the literature will be explored on the topic of off-field aggression in collision sport athletes. Last, mechanisms and relationships between aggression and athletics will be discussed as they relate to the present study.

Defining Aggression

Aggression has been defined as physically or psychologically harmful behavior that is intentional and directed at another living organism (Thirer, 1993). Within the sports literature, the definition of aggression has been further differentiated into two types of aggression: instrumental aggression: behavior meant to intentionally inflict harm or injury to an opponent in pursuit of a non-aggressive goal (Bredemeier, 1975), and hostile or reactive aggression: aggressive behavior solely for the purpose of inflicting harm or injury to an opponent (Silva, 1983). It is important to also make the distinction between aggression and violence. Violence specifically addresses the physical component of aggression and is often a result of hostile aggressive acts. The distinction lies within the intent of the behavior, whether the goal is to physically harm someone opposed to just achieving dominance (Tenenbaum, Stewart, Singer, & Duda, 1997).

Levels of Contact Sports

For the purpose of this study, it is important to define what constitutes a collision sport. Silva (1983) identified three levels of contact sports: collision sports, where contact is necessary and an integral aspect of playing the game (e.g., rugby), contact sports, where contact is legal and occurs accidentally at times (e.g., soccer), and non-contact sports, where contact between opponents in not allowed at all (e.g., swimming). This study will be primarily focused on the collision sport of rugby due to the aggressive characteristics of the sport.

Emotional Competence

Emotional competence has been defined as acting in accordance with one's set of moral guidelines (Saarni, 1999). As Saarni states, "When one is emotionally competent, one is demonstrating one's self-efficacy in emotion-eliciting transactions, which are invariably social in nature" (1999, p. 2). Emotional competence has to do with emotional regulation and emotional understanding, which have been linked to enhanced social functioning and the ability to cope with stressors and control one's emotions (Saarni, 1999; Southam-Gerow & Kendall, 2002). Thus, it is possible that sports can be a foundation to learn emotional competence based on the emotional arousal and social infrastructure that exists in athletic participation (Gardner & Moore, 2007). The present study will examine emotional competence with regards to engagement in off-field physical aggression and emotion regulation.

Theories of Aggression in Sports

Frustration-Aggression Theory. There have been many theories to explain the causes of aggression. One such theory is the Frustration-Aggression Theory, which

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states that aggression results from frustration due to an inability to reach one's goal (Dollard, Miller, Dood, Mowrer, & Sears, 1939). Many early theorists thought that aggression was an innate drive and that pleasure-seeking and pain avoidance were basic mechanisms of aggression (Berkowitz, 1989). The Frustration-Aggression Theory took this biological approach a step further and suggested that aggression was not necessarily innate, but rather a reaction to some external stimulus that was blocking goal-directed behavior and leading to frustration (Dollard et al., 1939).

  Revised Frustration-Aggression Theory. Another related theory is the Revised Frustration-Aggression Theory, which states that frustration or another stimulus increases one's arousal level and consequently, one's readiness to aggress (Berkowitz, 1989). The main difference between the original and revised version of the Frustration-Aggression Theory is that the revised version considers context and posits that there must be aggressive cues and the individual must deem it appropriate to aggress based on these cues. In all sports, there are many instances in which one is susceptible to frustration, one's goals are blocked or unattainable, and in some sports it is socially accepted and often encouraged to aggress. Thus, according to the Revised Frustration-Aggression Theory, sporting events are a likely place for aggressive behaviors. However, there are times at which frustration does not produce aggressive behavior, which has led theorists to posit that being frustrated merely enhances one's predisposition and probability for violent actions (Berkowitz, 1989).

  In the context of human aggression more generally, the Revised Frustration-Aggression Theory has garnered much empirical support, including Berkowitz and LePage's widely cited study revealing that frustrated participants would subsequently

demonstrate more aggressive behavior in the presence of aggressive cues (e.g., a gun) compared to neutral cues (e.g., badminton racket) (1967). The Revised Frustration-Aggression Theory, often thought of as the most empirically supported theory of human aggression, continues to develop and account for various moderator variables. For example, a meta-analysis of 40 studies found evidence for the displacement of aggression from the source of frustration to a target less powerful and/or more accessible (Marcus-Newhall, Pedersen, Carlson, & Miller, 2000).

   Social Learning Theory of Aggression. Bandura, who developed the Social Learning Theory of aggression, theorized that aggression is a learned behavior caused by interactions an individual has with his or her social environment. Further, this theory suggests that through modeling, the aggressive behaviors of others and oneself are perpetuated, such that one aggressive behavior can lead to another (Bandura, 1973). Social Learning Theories of human aggression not in the context of sports have yielded much empirical support including Patterson's work on family patterns of aggression and the development of antisocial behavior patterns (Patterson, Reid, & Dishion, 1992) and Bandura's famous Bobo Doll experiment (Bandura, Ross, & Ross 1963).

   In the context of contact sports, the Social Learning Theory of aggression would suggest that collision sport athletes are likely to be more aggressive than non-collision sport athletes because their aggression on the field will lead to a cyclical effect whereby aggression will be carried out in other aspects of an athlete's life beyond sports. Similarly, because aggression on the field is often reinforced and rewarded in contact sports, it is more likely to occur in greater frequency on the field and

subsequently off the field (Zillman, Johnson, & Day, 1974). A key aspect in the promotion and maintenance of aggression in sports is vicarious reinforcement, which is the idea that people repeat behaviors for which we see others being rewarded (Silva, 1983). The concept of vicarious reinforcement is why many current researchers believe that contact sports provoke aggression both on and off the field.

      Catharsis Theories of Aggression. Catharsis theory suggests that aggression is an innate drive that accumulates until one must release it in order to feel relief (Geen & Quanty, 1977). The first mention of catharsis was in Aristotle's *Poetics*, where he wrote about the effect of viewing tragic plays and how it gave people emotional catharsis from experiencing feelings of fear. This theory was later revived in early psychoanalytic theory when Freud was studying hysteria and proposed that repressed emotions (such as anger) can build up and lead to psychological symptoms (Breuer & Freud, 1895). Catharsis is derived from the Greek word "katharsis" which literally means to purge. According to catharsis theory, aggressive behavior subsequently leads to a reduction in further aggressive acts because one is able to "let off steam" (or *purge* the pent-up aggression) and return to a state of more manageable levels of instinctual aggression. Thus, in the context of sport, catharsis theory would lead one to believe that it is healthy for individuals to play contact sports if they inherently have high levels of aggression that they need to release. Catharsis theories of aggression have received limited empirical support in the literature, and in fact, it has been shown that people are subsequently more aggressive following an aggressive behavior (Bushman, 2005). However, catharsis theories of aggression in the context of athletics have received support through anecdotal evidence from various sporting groups, such as the

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National Hockey League and interscholastic football organizations (Bennett, 1991;

Jones, Stewart, & Sunderman, 1996).

In addition to the original theory of catharsis, two models have been developed

as derivatives of the original theory. First, there is the motor-discharge model of

catharsis that suggests that built-up aggression can be released through any form of

vigorous activity. Second, the displacement model of catharsis suggests that built-up

aggression must be released through hostile and/or instrumental aggression (Zillman

et al., 1974). According to displacement catharsis theory, collision sport athletes would

have lower levels of off-field aggression because they have an outlet through which to

displace their pent-up aggression compared to non-collision sport athletes. Although

some research supports the notion that contact sport athletes have the *same* or *lower*

levels of off-field aggression than non-contact sport athletes (Keeler, 2007; Silva,

1983), other research suggests the contrary, that contact sport athletes endorse and/or

legitimize *higher* rates of off-field aggression (Bredemeier, Weiss, Shields & Cooper,

1987; Huang, Cherek, & Lane, 1999; Tucker & Parks, 2001). Thus, it can be said that

data are inconclusive about the relationship between off-field aggression for contact

sport participants.

Although there are many theories of aggression, there is a considerable amount

of overlap between theories and attempts have been made to integrate the theories

into a broader framework, such as the General Aggression Model (Anderson &

Bushman, 2001). Most current research on human aggression is guided by variants of

the Revised Frustration-Aggression theory and Social Learning Theories of aggression

due to their magnitude of empirical support (Anderson & Bushman, 2001). However,

within the context of sports, multiple variables such as situational and cultural factors need to be considered when conceptualizing the theory behind off-field physical aggression. As of now, there is not one theory of human aggression that is unequivocally empirically supported for this particular area of inquiry.

Examination and Limitations of the Literature

Few empirical studies with athletes as participants have studied the relationship between off-field physical aggression and participation in high-impact, collision sports. Many anecdotal and media reports have been circulated suggesting that there is a positive relationship between participation in high-impact collision sports (like football) and rates of off-field physical violence (Lemieux et al., 2002). However, these reports often fail to compare athletes' rates of violence to that of the normative sample. Once this comparison is made, it is often the case that athletes have lower rates of off-field violence compared to same-aged peers from a normative sample (Kimble, Russo, Bergman, & Galindo, 2010). Thus, it can be said that the findings are inconclusive for men's participation in contact sports and the relationship between both *off-field* and *on-field* aggression. As will be discussed later, the lack of scientific rigor in such studies as well as the trouble defining unsanctioned aggression and measuring aggression warrants skepticism of the findings claiming participation in contact sports yields subsequently more aggression.

Catharsis Theory of Aggression. Empirical studies examining catharsis theory, where exercise *has* been experimentally manipulated, has contraindicated that vigorous physical exercise reduced subsequent aggression (Bushman, 2002; Zillman, Katcher, & Milavsky, 1972). However, these studies did not include athletes as

participants, so it is unclear whether this finding can generalize to the role of athletic discharge for athletes as it relates to off-field aggression. Further, the few studies exploring catharsis theories of aggression that *did* sample athletes and were experimentally-manipulated had small sample sizes and no non-athlete control groups (Huang et al., 1999; Zillman et al., 1974).

Another major flaw in the literature is that studies often fail to have a non-athlete control group (Kimble et al., 2010). To further complicate things, it is also difficult to compare athletes to non-athletes when examining catharsis theories of aggression because one cannot assume that non-athletes do not have a physical outlet outside of athletics that also reduces their supposed pent-up aggression. Studies claiming that aggression should be lower in collision sport athletes compared to non-athletes and non-collision sport athletes are failing to consider the broader context in which people might operate.

Correlational and Survey Studies. Although there are very few empirical, experimentally-manipulated studies, there are an abundance of correlational studies exploring aggression in athletics using self-reported measures of aggression. These findings have also been mixed in terms of supporting whether or not men participating in contact sports leads to more or less aggressive behavior off-field (Kimble et al., 2010). Further, many of these studies lack power due to small sample sizes and causal inferences cannot be made from these correlational studies. Unfortunately, the media has manipulated many correlational studies to reflect causal claims that athletes are aggressive (Lemieux et al., 2002). In general, these self-report studies have mixed findings, some suggesting that participation in any sport, not specifically a contact

sport, is associated with increased aggression compared to those who do not participate in sports (Valliant, Simpson-Housley, & McKelvie, 1982; Young, 1990), while others suggest that athletic participation is not related to off-field aggression (Gidyza, Warkentin, & Orchowski, 2007; Miller, Melnick, Farrell, Sabo, & Barnes, 2006). Therefore, as with the experimentally-manipulated studies, self-report studies also offer contradictory conclusions about whether or not athletes (and collision sport athletes specifically) are more aggressive than non-collision sport athletes.

Single-Sport Studies. Even when the examination of aggression is narrowed to study just one contact sport, such as football, findings are mixed and the studies are outdated. Some studies have found that football players are more aggressive than non-collision sport athletes, especially with regard to sexual aggression (Murnen & Kohlman, 2007). However, other studies have found that football players are not significantly different on ratings of aggression compared to minimal, or non-contact sports such as baseball and track (Aamodt, Alexander, & Kimbrough, 1982) and score in the average range on an aggression test compared to the normative sample (Lowe & Sani, 1972). Another study found that football players who got the most playing time reported lower aggression than players who were unable to play (due to redshirting, where an athlete does not participate in their sport for one year in order to lengthen their years of eligibility), which offers some support for the displacement model of catharsis theory (Nation & LeUnes, 1983). From these mixed findings that examined just one high-contact, collision sport (football), it is not possible to conclude if participation in football is related to higher or lower levels of aggression.

Although there is an abundance of literature on the topic of sports and

aggression from a variety of disciplines, gaps in the literature arise from the lack of sound empirical studies. As a result, the stereotype of athletes as inherently violent individuals has perpetuated popular media and it is still unknown whether there is truth in this statement (Kimble et al., 2010). Until further research is conducted and replicated, it will remain unclear.

Defining Aggression. Another key problem in the methodology is in defining what an unsanctioned aggressive act is in the sports context (Kimble et al., 2010). Sports provide a unique context to study aggression, but it can also be difficult to distinguish what are appropriate versus inappropriate acts of aggression in sports because there are many acts of aggression in sports that would not be tolerated in most other contexts.

Differentiating between instrumental and hostile aggression has also proven to be a difficult task in the research of athletes, especially as the classification of aggression may differ depending on the sport. For example, it is a common strategy tactic in hockey to hip-check a player (the action of using one's hip to hit or bump an opponent's hip) to prevent them from reaching the puck (instrumental aggression). However, in soccer, hip-checking a player so that they cannot reach the ball on a corner kick is against the rules and would be considered an act of hostile aggression by some. It becomes clear that rules and boundaries are often blurred across sports, making it difficult to generalize research findings that sample a breadth of athletes who perform in different sports. Future research should pay careful attention to differentiating types of sports examined and the potential differences in defining an "aggressive act."

Measuring Aggression. Another gap in the literature is that there are no

standardized measures of aggression for the sporting context. In a meta-analysis examining off-field aggression in athletes, the authors cited 17 studies on the topic, and from those studies over 25 different measures were utilized in the pursuit of understanding off-field aggression in athletics (Kimble et al., 2010). In order for the reliability of the findings on this topic to increase, there needs to be a standardized measure(s) that is consistently used and replicated in studies.

Some studies have found that hostile aggression can lead to winning, increased motivation and enhanced athletic performance, however, this behavior is often regarded as controversial in athletics (McGuire, Widmeyer, Courneya, & Carron, 1992; Widmeyer & Birch, 1984). In addition, there have not been any studies following up on *how* aggressive behavior can lead to success in athletic performance. Some authors suggest that researchers' results are biased in their reporting of data and how they choose to conduct research, often lacking sound methodology, in order to publish studies that will fuel the popular social commentary surrounding athletes as aggressive and violent individuals (Kimble et al., 2010).

Rugby and Aggression

The intentional acts of physical aggression in collision sports can be considered part of the competitive spirit of the sport. Rugby, which is a popular collision sport in Europe, South Africa, Australia, New Zealand, Canada, and the United States, involves high contact, no padding, and frequent collisions epitomizing the game (Donnelly & Young, 1985). Every player on a rugby team is expected to know how to tackle and will more than likely make physical contact with an opponent in every game. Rugby is often

seen as a sport where there is intentional aggression with the purpose of inflicting injury, also known as hostile aggression (Silva, 1983).

In a study by Maxwell and Visek (2009), the authors attempt to identify characteristics of rugby players who are more likely to engage in unsanctioned aggression that do not fall within the rules (e.g., hitting an opponent above the shoulder) with the intent to cause injury to their opponent. The authors surveyed 144 male Hong Kong rugby players to assess aggressiveness, anger, past aggression, professionalization, and athletic identity. Professionalization, as defined by Webb (1969) is the notion that athletes place increasing importance on winning as opposed to fair play and skill acquisition. In addition, higher levels of professionalization are positively correlated with anger and aggressiveness (Visek et al., 2010). Results from Maxwell & Visek's study (2009) indicated that high scores on aggressiveness and professionalization were significant predictors of self-reported use of unsanctioned aggressive force in a game with the purpose to cause injury or pain to the opponent. Further, players who were taught how to conduct unsanctioned plays without being caught were more likely to endorse use of excessive force with the goal to cause injury (Maxwell & Visek, 2009). The question then becomes whether this win-at-all-cost attitude in rugby extends beyond the playing field, or "pitch."

Although some research examining unsanctioned aggression in rugby suggests that players with high scores on measures of aggressiveness significantly predicted increased use of unsanctioned aggression (Maxwell & Visek, 2009), other research has indicated that there is a general tendency for rugby players to interpret their competitive trait anger symptoms as facilitative, rather than debilitative with regards

to aggression (Robazza & Bortoli, 2007). Although these athletes may recognize this trait anger as leading to enhanced performance on the playing field, it would be useful to investigate whether this aggressive drive is manifested and facilitative in other areas of an athlete's life that are not specifically sport-related, such as off-field interpersonal interactions. To take this a step further, there are no studies which explore whether athletes who engage in on-field aggression, and condone this sort of violence, are able to segregate this aggressive behavior and limit it to the playing field, so as not to have it infiltrate other areas of their life, personally, professionally, or otherwise. In the sports contexts, this has been referred to as bracketed morality, the notion that an athlete will suspend his or her personal ethics or morality during athletic competition (Bredemeier & Shields, 1984). This rationale is thought to justify what would otherwise be considered unethical behavior in a non-athletic context.

Rugby and Alcohol Use

Another important facet to be considered in the study of off-field aggression and rugby is the culture of alcohol consumption that is associated with the sport (Lawson & Evans, 1992). In a New Zealand study examining the drinking patterns of athletes who participate in rugby, researchers administered the Alcohol Use Disorders Identification Test (AUDIT; Babor, De La Fuente, Saunders & Grant, 1993) to 348 rugby players at the start of their season (Quarrie, Feehan, Waller, Cooke, Williams, & McGee, 1996). Results indicated that 61% of male respondents reported consuming six or more drinks in one session at least weekly, with the average being 10 or more drinks. This is an important factor to consider when researching rugby players' engagement of off-field violence, given that many studies have demonstrated a positive relationship

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between increased alcohol consumption and increased violent behavior and violent crime (Zhang, Lening, Wieczorek, & Welte, 1997).

Nationally representative surveys have found that in general, individuals with a diagnosis of alcohol abuse or dependence have significantly higher rates of physical violence than those with no diagnosis (Babor, 2010). The topic of alcohol consumption in the culture of rugby is particularly salient for adolescents and college-age rugby players, as associations have long been identified between alcohol intoxication and violent behavior in male adolescents and college students (Perkins, 2002; Rossow, Pape, & Wichstrom, 2002).

The Present Study

Based on the aforementioned limitations of the literature, in the proposed study I examined the relationship between participation in rugby and off-field physical aggression using a mixed methods design, which to this author's knowledge, has never been used to examine this specific topic. In particular, adding a qualitative component to this area of inquiry provided a new way of informing the question of off-field aggression in collision sport athletes. Also, the qualitative component explored self-reported perceptions of aggressive behavior before and after athletic participation to highlight the athlete's perspective on a possible cathartic effect.

Among some of the negative repercussions that have been found to be consequences of social aggression are feelings of loneliness, depression, substance abuse, and emotional dysregulation (Hessler & Katz, 2010). Therefore, aggression in sports is an important area to target to enhance the overall well-being of athletes who find themselves acting out aggressively toward their peers. Further, interventions

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aimed at increasing coping skills in sports, a context where frustration and thus, aggression is likely frequent and inevitable, will equip athletes with transferrable skills beyond athletics. Last, studying the relationship between aggressive behavior and emotional competence provides a positive framework through which to examine aggressive behavior in sports.

<center>**Chapter III**</center>

<center>**Methods**</center>

Methods Rationale

I used a mixed methods design to examine the research questions of this study, including both a retrospective qualitative interview and a pre-post survey. Mixed methods research blends quantitative and qualitative research techniques in a single study. The goal of mixed methods research is to draw from the strengths and minimize the weaknesses of both quantitative and qualitative research (Creswell & Clark, 2007). Mixed methods research studies are often used to explore, describe, explain, predict, or influence some phenomena (Leech & Onwuegbuzie, 2011). Mixed methods can also considered inductive (discovery of patterns), deductive (testing of hypotheses), and abductive (uncovers the best of a set of explanations for understanding one's results). For this study, the quantitative data were used to uncover the relationships between variables and the qualitative data were used to reveal themes and give meaning to the research participants' experience. The qualitative strand was included in this study as an attempt to give a voice to the participants in the study. Giving participants a voice can be described as the process of trying to understand and present the viewpoints and experiences of the participants (Larkin, Watts, & Clifton, 2006). Further, by combining approaches, it allowed me to attempt to answer research questions in a way that is useful, generalizable, and robust (Tashakkori & Teddlie, 2003).

Another reason mixed methods was chosen was for the purpose of triangulation, which can enhance the validity of a study. Triangulation is the process of combining qualitative and quantitative methods to examine the same phenomenon,

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but from different methodological perspectives (Bryman, 2006). A mixed methods design also has the possibility of adding insights that would be missed had a single methodology been used because the researcher can bring together a more complete account of the topic of inquiry by including both methods, which can enhance the overall credibility of the findings. Some researchers posit that by corroborating findings using multiple methodological approaches, greater confidence can be held in the singular conclusion that is generated (Johnson & Onwuegbuzie, 2004).

Research Design

      Convergent Parallel Mixed Methods Design. Although there are many different mixed methods designs and names for the same type of design, a convergent parallel mixed methods design is appropriate for the present study. In a convergent parallel design, both quantitative and qualitative data are collected and analyzed separately and then the two sets of results are integrated during the interpretation phase to create "different but complementary data on the same topic" (Morse, 1991, p. 122). In other words, the purpose of this design is to produce a more complete understanding of a given topic (Creswell & Clark, 2011). The two methods are used as a way to cross-validate findings to best understand the research problem, with equal priority given to each method (Tashakkori & Teddlie, 2003). A particular strength of this research design is that each type of data can be collected and analyzed separately, using the techniques traditionally associated with each type of data (Creswell & Clark, 2011). For this study, utilizing this mixed methods design allowed me to address my research questions more completely and from multiple perspectives and analytic approaches.

Philosophical Foundations. I utilized the philosophical foundation of pragmatism to guide my research design. Pragmatism is the primary philosophy associated with mixed methods design due to its goal of considering multiple perspectives by using both qualitative and quantitative data (Johnson, Onwuegbuzie & Turner, 2007). A pragmatic worldview focuses on the consequences of research, the research questions rather than the methods, and the use of multiple methods of data collection to address the research question (Creswell & Clark, 2011).

Although pragmatism was the philosophical foundation to support the mixed methods research paradigm for this study, a constructivist philosophical lens underlies the qualitative strand of the research. A constructivist paradigm assumes that we construct our own subjective realities in relation to one another, and we can construct the same reality in different ways. In particular, an adapted constructivist grounded theory approach was utilized to analyze the qualitative data, which comes from an interpretive tradition. Constructivist research tends to be more holistic and emphasizes the data and analysis in a study that is co-created by researcher, participant(s), and other sources of data (Charmaz, 2006). Constructivist research attempts to answer how and why participants construct meaning. The goal of constructivist research, and the constructivist grounded theory framework applied to the qualitative strand of this study is understanding, opposed to prediction (Ponterotto, 2005).

For this study, I used the qualitative research data in an attempt to answer how rugby players construct their perceptions, and make meaning of, how playing rugby may influence aggression, with consideration to time, place, culture, and situation.

Also, important to constructivist grounded theory is the researchers' own reflections about their own interpretations of the data, and how their own presuppositions and influence may have affected the research (Charmaz, 2006).

Trustworthiness in Constructivist Qualitative Research. Trustworthiness is referred to as a primary standard of quality in qualitative research (Morrow, 2005). Although there are some universal standards of trustworthiness that span across all qualitative research paradigms, there are also paradigm-specific standards. Because a constructivist approach is employed in the current study, trustworthiness standards specific to this paradigm will be discussed. Patton (2002) discusses the importance of acknowledging and accepting subjectivity in constructivist research. Further, he notes other factors that contribute to trustworthiness and quality in a constructivist qualitative approach: dependability, or the idea that the researchers are following a systematic process of conducting qualitative research, and triangulation, or the idea of "capturing and respecting multiple perspectives" (Patton, 2002, p. 546). Morrow (2005) also emphasizes the importance of considering context, culture, and rapport, when trying to capture the multiple perspectives and construction of meanings of participants. Throughout this study, research meetings were held with the co-researchers to reflect and discuss the aforementioned issues as they relate to the participants, as well as the researchers themselves and how they may be co-constructing the interpretation of the data.

From a constructivist grounded theory approach, the recommended number of interviews that indicate trustworthiness of a study varies throughout the literature, where some authors suggest that "the situational diversity necessary for identifying

thematic patterns is often provided by three to five interview transcripts" (Pollio, Henley, & Thompson, 1997, p. 51). At the top end of suggested interview ranges for grounded theory methodology, Creswell (1988) suggests 20-30 interviews, and Morse (2000) suggests 30-50 interviews. Morrow (2005) discusses how many researchers focus too much on the number of interviews in an effort to manage the discomfort of ambiguity that goes along with conducting qualitative research. Rather, it is suggested that the focus in constructivist grounded theory should be on the quality and richness of the data and analytic process (Charmaz, 2006; Morrow, 2005).

  General Standards of Trustworthiness in Qualitative Research. In addition to constructivist paradigm-specific standards of trustworthiness, Morrow (2005) suggests four additional criteria to ensure trustworthiness across qualitative research designs: *social validity*, *subjectivity* and *reflexivity*, *adequacy of data*, and *adequacy of interpretation*. Social validity is the idea that a study considers the significance, appropriateness, and subjective social importance of what is being studied (Miller, 1986). The goal of the present research is to enhance understanding about the relationship between playing rugby and off-field aggression. The procedure of this study involves a survey and consensual interview that gives the participants a "voice" in the research findings. The social implications of this study are discussed in greater length in the discussion section.

  Subjectivity and reflexivity address how in qualitative research traditions, one must acknowledge that the analytic process is ultimately subjective in nature (Morrow, 2005). However, there are strategies that can limit and manage the subjectivity of a study. For example, having a co-researcher, external auditor, and making one's social

location known, are three ways that I have managed the subjectivity of the research. In particular, I have included a section in this document, titled "Researchers," where I make my social location known, as well as the social location of the co-researcher and external auditor involved in the study.

A related standard of trustworthiness is reflexivity, which is defined by Rennie (2004) as "self-awareness and agency within that self-awareness" (p. 183). In other words, it is important that, as researchers, we must acknowledge our own experiences, assumptions, and biases that may arise. For this study, I practiced reflexivity by consulting and having frequent open dialogues with the co-researcher about my reactions and assumptions that emerged throughout the analytic process. Additionally, I was careful to assume or interpret participants' viewpoints, and would often ask for clarification and receive correction about my own understanding of their meaning-making.

Adequacy is another standard of trustworthiness that Moore (2005) suggests for qualitative research. However, she posits that the number of interviews is not a useful way to measure adequacy of data. Rather, she draws upon five types of adequacy originally proposed by Erickson (1986): adequate amounts of evidence, adequate variety in kinds of evidence, interpretive status of evidence, adequate disconfirming evidence, and adequate discrepant case analysis. Instead of focusing on sample size, Moore (2005) recommends focusing on sampling procedures to evaluate the adequacy of a study. In particular, "quality, length, and depth of interview data; and variety of evidence" (Moore, 2005, p. 6). Patton (1990) also describes the strategy of purposeful sampling as a way to establish adequacy, by sampling participants that will produce

the richest information on the topic being studied. In the present study, adequacy was attempted by purposefully sampling participants from the rugby team that was surveyed in an effort to corroborate the two sources of data. Further, by administering lengthy interviews that contained detailed questions, I attempted to obtain adequate and rich data.

Last, Morrow (2005) discusses adequacy of interpretation as a standard of trustworthiness. Adequacy of interpretation refers to the process of analysis, whereby we immerse ourselves in the data. In an attempt to immerse myself in the data, I continued to read and reread transcripts and frequently reviewed the data and various stages of analysis with the co-researcher and external auditor. In addition, adequacy of interpretation relies heavily on having a solid philosophical framework that guides the data analysis (Morrow, 2005). For the present study, I used an adapted grounded theory approach to guide data analysis. Also, I included analytic memos, which are said to be a useful tool to enhance adequacy of interpretation (Strauss & Corbin, 1990). Analytic memos can be codes, themes, comparisons, or any ideas about the data that the researcher identifies during data analysis (Charmaz, 2006). Finally, adequacy of interpretation can be measured by the use of supporting quotes from participants to support the researchers' findings and interpretations (Morrow, 2005). In the process of developing a focused coding schema, participants' quotes were included as exemplars to support the categories that were formulated, and thus, adequacy of interpretation was bolstered (see Appendix F for list of initial focused codes with supporting quotes).

Paradigmatic Underpinnings of Quantitative Strand. For the quantitative strand of data, the paradigmatic underpinnings are rooted in a positivist epistemology. In particular, this philosophical foundation stresses the importance of objectivity, falsification of hypotheses in an effort to discover causal explanations and be able to make predictions. There is a large emphasis placed on quantifiable variables that can be studied and described using the scientific method (Sale, Lohfeld, & Brazil, 2002).

Researchers

In qualitative research, it is suggested that understanding the social location of the researcher in relation to the present study is crucial when trying to understand the complete context of a given research project (Morrow, 2007). Also, in an attempt to add to the trustworthiness and rigor of the study, a researcher should make known his or her own stances, motivations, assumptions and biases. Thus, in hopes that my research gains a level of honesty, I will introduce myself relative to the population of interest.

I, the primary researcher, am a female, fourth-year graduate student at a West Coast University. I identify as an out-group member to the population being studied (college-age, male, rugby players). My interest in the study developed from my own anecdotal evidence after speaking with collision sport participants and coaches, and listening to their accounts of how impactful playing rugby has been on multiple facets of their lives. Several long-time rugby players have described to me how playing their sport prevented them from being physically aggressive in "illegal contexts" because their sport provides them with an outlet to "get out" physically aggressive energy that they experience. Upon hearing similar versions of this statement multiple times, I

became interested in the idea that participating in collision sports may in fact reduce off-field physical aggression despite the literature on this topic being inconclusive. Further, due to the absence of qualitative data on the relationship between off-field aggression and collision sport participation, I saw an opportunity to add to the literature and study this topic from a new perspective by using a mixed methods research design.

I have some experience in qualitative research; however, this is the first mixed-methods study I have been involved in. I was a secondary researcher on a qualitative study examining help-seeking behaviors of Orthodox Jewish Israelis. I also took a qualitative interviewing course in graduate school to further my knowledge of qualitative methods.

The secondary researcher was a second-year graduate student from the same West Coast University that I attended. She also identifies as an out-group member to the population being studied, and reports very little familiarity with the topics of athletics and aggression. She has significant experience working on several qualitative studies, and in particular, draws heavily upon grounded theory. Her involvement in this study was solely to help with the qualitative portion of the study. She was involved in coding every interview to increase inter-rater reliability, and participating in regular research meetings throughout the qualitative data analysis. As someone unfamiliar with rugby altogether, she helped question rugby terminology and my own assumptions about the sport. She also helped with the theory that ultimately emerged following the different phases of coding.

This study also relied upon the expertise of an external auditor to consult on the qualitative research methods and logical coherence of the resulting theory. The external auditor is a Counseling Psychologist teaching at the same West Coast University as the primary and secondary researchers. She has extensive knowledge in the field of qualitative methods and has carried out many qualitative research studies. She too identifies as an out-group member to the population being studied. The use of auditors in qualitative research has been suggested as a demonstration of rigor and as a check for researcher bias (Elliot, Fischer, & Rennie, 1999).

Participants

The participants in this study were college-age male rugby players who were competing on a club rugby team affiliated with a mid-size community college in the Western United States. Participants were recruited both in-person and through online recruiting. Inclusion criteria for the study required that each participant had been a member of the rugby team for the entire 2013-2014 rugby season. Surveys were administered in person at an agreed upon practice that the head coach set up at three different times throughout the season. At the first sampling (pre-season), 17 participants were surveyed, at the mid-season sampling, 20 participants were surveyed, and at the end of the season sampling, 15 participants were surveyed. To collect participants for the interviews, I posted to the rugby team's public Facebook page a brief description of my study and a link to an electronic consent form. A total of five rugby players participated in the interview portion of this study.

Measures and Procedures

      Longitudinal Survey. First, a longitudinal self-report survey was administered at three time points in order to evaluate differences in mean scores on aggression and various descriptor variables across time. Surveys were administered before, halfway through, and at the conclusion of a rugby season to help determine whether participation in a club rugby team influences the frequency and acceptance of off-field physical aggression. The survey data were corroborated with qualitative interviews from five rugby players who participated on the team during the season surveyed. Because there was no assigned intervention or control group, no causal claims can be made, therefore, the survey data will be used as context for the qualitative data gathered. Individual measures included in the survey are outlined below.

      Background Information. Basic demographic information was gathered about participants through a self-report survey. Standard demographic information such as age, ethnicity, and education level was later quantified. Participants were also asked how long they have participated on the club team, how long they have played rugby, what other sports they participate in, and an estimation of their Grade Point Average (GPA).

      Descriptors. In addition to this demographic information, descriptors were included to help contextualize and describe the given sample of participants. These descriptors included measures of self-efficacy, mood regulation, alcohol use, social and emotional well-being, and subjective happiness. These descriptors were measured using the instruments described below.

New Generalized Self-Efficacy Scale. Self-efficacy was measured by the *New Generalized Self-Efficacy Scale* (NGSE; Chen, Gully, & Eden, 2001). The NGSE is an eight-item scale that measures an individual's general sense of self-efficacy in coping with life's hassles and in adapting to stressful situations or circumstances. In other words, it is a measure of one's confidence in meeting task demands in a broad range of contexts. The items are rated on a five-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*) and the participant is asked to rate how much they agree with each statement. NGSE scores have been shown to have high reliability coefficients with evidence of internal consistency and temporal stability, as well as evidence of high construct validity, both convergent and divergent (Chen et al., 2011).

General Expectancy for Negative Mood Regulation Scale. Emotion regulation was measured using the *General Expectancy for Negative Mood Regulation Scale* (NMR; Cantanzaro & Mearns, 1990). The NMR is a 30-item instrument used to measure one's belief about their capacity to regulate negative emotions or feelings. The items are rated on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). A study using a multitrait-multimethod matrix to validate the NMR scale supported the construct validity of measure scores (Mearns, Patchett, & Catanzaro, 2009).

Alcohol Use Disorders Identification Test. Alcohol consumption was measured using the *Alcohol Use Disorders Identification Test* (AUDIT; Babor, De La Fuente, Saunders & Grant, 1993). The AUDIT is a 10-item questionnaire developed by the World Health Organization (WHO) that assesses recent alcohol use, alcohol dependence symptoms, and alcohol-related problems. AUDIT scores have been shown to have high validity (criterion validity) and reliability in different clinical and cultural

samples throughout the world. High reliability for AUDIT scores was reflected in high internal consistency and test-retest reliability coefficients ($r = .86$). AUDIT scores have favorable sensitivity and acceptable specificity for alcohol use disorder and determining the risk of future harm (Reinert & Allen, 2007).

  The Schwartz Outcome Scale-10. Social and emotional well-being was assessed using *The Schwartz Outcome Scale-10* (SOS-10; Blais et al., 1999). The SOS-10 is a 10-item measure that assesses a person's current quality of life, ability to maintain relationships, and overall sense of well-being and psychological health. Although this measure was originally developed for inpatient psychiatric patients, the SOS-10 scores have also been shown to be valid indicators of college students' psychological functioning, with strong test-retest reliability indications and concurrent validity using an indirect assessment of maladjustment as well as a self-report measure of distress (Young, Waehler, Laux, McDaniel, & Hilsenroth, 2003).

  The Subjective Happiness Scale. Subjective happiness was measured using *The Subjective Happiness Scale* (Lyubomirsky & Lepper, 1999). The *Subjective Happiness Scale* is a four-item instrument that assesses general perceptions of global happiness. Participants were asked to rate on a seven-point Likert scale how much each statement describes them (e.g., "In general, I consider myself: 1 – *not a very happy person*, to 7 – *a very happy person*"). *The Subjective Happiness Scale* scores have been demonstrated to have high internal consistency, good test-retest reliability and high construct validity as evidenced by strong convergent and discriminant validity (Lyubomirsky & Lepper, 1999).

Aggression Questionnaire. Aggression was measured using two scales. The first is the *Aggression Questionnaire* (AQ; Buss & Perry, 1992), which consists of 29 items, distributed unequally among four factors: Physical Aggression, Verbal Aggression, Anger, and Hostility. This instrument also generates a total aggression score. Internal consistency of the four factors and the total aggression score was assessed using 1,253 subjects. Chronbach's alpha coefficients were as follows: Physical Aggression (α = .85), Verbal Aggression (α = .72), Anger (α = .83), and Hostility (α = .77). Each factor had fewer than 10 items, thus, these alpha coefficients are adequate measures of internal consistency. The total score for all four factors was α = .89, indicating high internal consistency for scores. Test-retest correlation coefficients of reliability suggest adequate score stability over time for all four factors and the total score: Physical Aggression (r = .80), Verbal Aggression (r = .76), Anger (r = .72), Hostility (r = .72), total score (r = .80) (Buss & Perry, 1992). Further evaluations of validity and reliability for the *Aggression Questionnaire* have also found moderate to high internal consistency that is stable over time as well as some degree of construct validity by comparing the four aggression scales to other measures of aggression (Harris, 1997).

Reactive-Proactive Aggression Questionnaire. The second measure of aggression used was the *Reactive-Proactive Aggression Questionnaire* (Raine et al., 2006). It is a 23-item questionnaire with 12 items designed to measure proactive aggression and 11 items designed to measure reactive aggression. For each item, participants are asked to rate how often they have done the following on a scale of: 0 (*never*), 1 (*sometimes*) or 2 (*often*). Proactive aggression has been characterized as

instrumental and organized with little autonomic arousal, whereas reactive aggression

is characterized by responding to a stimuli that is perceived as threatening (Dodge,

1991). The key differentiation between the two constructs is in the motivation for

action; proactive aggression is where one fights "to show who is on top" whereas

reactive aggression is where one "damages things out of feeling mad" (Raine et al.,

2006). For the *Reactive-Proactive Aggression Questionnaire*, significant

intercorrelations between raw mean scores for the two constructs were found (r = .67,

N = 334, p<.0001). Further, confirmatory factor analysis revealed a significant fit for a

two-factor proactive-reactive model of aggression and found significant reliability

(internal reliability greater than 0.83 for each scale) and validity (construct validity,

criterion validity, and convergent validity) for measure scores in a population of

adolescent boys (Raine et al., 2006).

      Semi-Structured Interview. After the survey data was collected, a semi-

structured interview approach was utilized to gather the qualitative data for this study.

A semi-structured interview was employed to enable flexibility in probing and allowing

me to determine what areas necessitate further exploration. This semi-structured

format typically elicits richer responses by being able to expand upon the sequence of

core questions already considered (Patton, 2002). This approach also allows for

greater ease of analysis due to having a more organized and systematic layout of the

questions (Patton, 2002). For more in-depth descriptions about the interview protocol,

approach, sequencing of questions, and types of questions asked, please reference

Appendix C.

Procedures

      Data were collected in two parts. The first part of data was collected over the one-year rugby season. First, a pre-post survey design was implemented to determine if individual rugby players demonstrate measurable changes in the aforementioned measures/constructs across a one-year season they participated in as members of a club rugby team. All members of the rugby club were asked to volunteer in the present study. Survey data was collected at the start of the rugby season on August 29th, 2013, mid-way through the season on December 4th, 2013, and at the end of the season on April 5th, 2014. A total of 17, 20, and 15 participants, respectively, participated in the survey portion of this study. No incentives were provided for this portion of the study. I distributed the surveys in-person to the players at the end of a training session. The survey responses were anonymous and de-identified by each player creating their own self-created six-digit code. All responses from the surveys were recorded and linked to each player's unique self-created ID code at the time of data entry.

      At the conclusion of the 2013-2014 season, the cohort of current rugby players who were members for the entire rugby season were invited to participate in the second portion of the study. Participants were notified about the second part of the study through a post on the team's public Facebook page as well as an email circulated by the coaching staff containing the contact information of the principal investigator. If a player was interested in participating, he completed a survey hosted on surveymonkey.com that included an electronic consent form, basic demographic questions, and a phone number to contact the participant in order to set up the phone interview. In the electronic consent form, participants had to agree to their phone

interviews being audio recorded and transcribed. After electronically signing the consent form, I contacted the participants to set up the phone interview.

The qualitative data were collected over a five-month period of time spanning from August 2014 to December 2014. A total of five participants consented to participating in the interview portion of this study. Phone interviews varied from approximately thirty minutes to an hour and a half in length. A digital audio recorder was used to record the interviews. At the conclusion of the interviews, each participant self-selected a pseudonym that they would like used in the transcription and on any written document resulting from this study. Participants were offered an incentive of $30 in the form of an Amazon gift card for completion of this portion of the study. The gift card was emailed to each participant upon completion of the interview.

After interviewing, I transcribed the full interviews in order to code and analyze the data. Although no transcript can be considered purely "verbatim" according to Poland (2002), the transcriptions attempted to capture the exact words that were heard from the audio recording, with recognition that the flavor and tone of the responses could not be fully captured.

Data Analysis

The analyses and associated research questions are outlined in Appendix A. The quantitative and qualitative phases of data analysis are separated for clarity and discussed below. Typical of a mixed methods study, my analyses include the integration of hypothesis testing and hypothesis generation (Creswell & Clark, 2011).

Quantitative Data Analysis. For the quantitative portion of this study, all statistical procedures were conducted using SPSS. First, paired samples *t*-tests were

computed to compare mean scores of aggression. Repeated scores of aggression were obtained by surveying the same group of rugby players at different time points. Although the entirety of the rugby team was surveyed at three different time points throughout the rugby season, there were seven participants with the same self-selected ID code who consistently self-reported scores of aggression at time one (before the season commenced), and time two (mid-way through season). Therefore, the quantitative analysis focused on these seven participants' scores of aggression. For an examination of differences in mean scores of aggression for the entire group of participants, I will include additional post-hoc analyses in the discussion section.

The paired samples *t*-test that were computed compared means for the following scores of aggression: Reactive Aggression and Proactive Aggression from the *Reactive-Proactive Aggression Questionnaire* (Raine et al., 2006), as well as Physical Aggression, Verbal Aggression, Anger, Hostility, and Total Aggression measured by the *Aggression Questionnaire* (AQ; Buss & Perry, 1992). Analysis using repeated measures was chosen in part because it takes participant differences into account and consequently, allows for the violation of assumption of independence of observations (Warner, 2008).

After computing the paired samples *t*-test, Cohen's *d* was also calculated as a measure of effect size. Calculating Cohen's *d* helps explain what proportion of differences in the means are due to effect sizes as opposed to error or other irrelevant variables. In other words, it measures the magnitude of mean differences (Cohen, 1988; Warner, 2008).

I chose to run an a priori power analysis to determine if the number of participants I ended up with would be sufficient before computing my analyses (Faul, Erdfelder, Buchner, & Lang, 2009). In order to run the preliminary power analysis, I selected a medium effect size, d=0.5, using Cohen's effect size conventions (Cohen, 1969, p.348). I selected an alpha level of 0.05, and Power (1- β)=0.80, based once again on convention. I set my number of groups at two, to represent the two time points with repeated measures, and the number of measurements at seven, to represent the seven factors of aggression that were measured. The power calculator computation resulted in an actual power of 0.94, which is regarded as satisfactory given that it is over 0.80. The suggested sample size was six, which coincides with the actual sample of seven participants. Therefore, the sample size of seven will allow for adequate statistical power in my analysis of the quantitative data.

Qualitative Data Analysis. An adapted constructivist grounded theory approach was used to analyze the qualitative portion of this this study. Grounded theory is a method of qualitative research that constructs theories grounded in the data through a systematic set of guiding principles, rather than testing a pre-conceived theory (Charmaz, 2006). In grounded theory, the aim is to construct conceptual categories and explore the relationship and quality between categories. Grounded theory is also guided by research questions but has the flexibility to emerge and shift as data is collected and informed by participants and researchers. The constructivist branch of grounded theory makes the assumption that any theory rendered is interpretive in nature, and constructed by both the researcher and participant (Charmaz, 2006). This method of analysis was chosen due to its flexibility, focus on the

qualitative nature of the data, and overall goal of understanding the latent meaning of emergent themes and patterns found in the data (Braun & Clark, 2006; Joffe & Yardley, 2004).

In the present study, the data were systematically coded following a constructivist grounded theory approach. Two independent coders who have training in grounded theory methodology were responsible for the entirety of the qualitative data analysis in this study. The qualitative data analysis occurred in three stages: line-by-line coding, focused coding, and theoretical coding. Coding is typically the first step in qualitative data analysis, and is a process that helps describe and categorize the data, with the goal of working toward developing emergent theories that help explain the data (Charmaz, 2006). Memo-writing was another tool that was used throughout the analysis of the qualitative data.

Line-by-line coding. For the initial phase of coding, line-by-line coding was used to analyze the data. In accordance with grounded theory methodology, line-by-line coding is often the first method of analysis that allows coders to carefully analyze every line of written data and remain open to nuances and theoretical categories that may have been missed if only looking at larger pieces of data. Often in grounded theory analysis, line-by-line coding is used until categories and themes begin to emerge that seem relevant and fitting to the data (Charmaz, 2006). Themes can be described as specific patterns in the data that arise and capture something important in relation to the research question (Braun & Clark, 2006). Themes were coded using an inductive approach, whereby the code was derived from the transcription, using a describing word (or words) that condensed and described the particular data sequence (Saldana,

2013). For example, if a participant described the messages he received from coaches, a code that might result from this data sequence would be "Coach's Message."

In-vivo codes were used throughout the line-by-line analysis; these are codes that use the exact wording of the participant. In-vivo codes are a helpful way to capture participants' experience using the participants' condensed and shorthand language used to describe their experience. Also, gerunds (e.g., "making," "relieving," "building") were used as often as possible when creating codes. The use of gerunds is discussed in grounded theory analysis as a helpful way to keep the wording of the codes active and closely tied to the participants' language (Charmaz, 2006).

All five interviews were coded line-by-line by both coders and research meetings were held after each interview to review codes and discuss differences. A list of the initial codes that resulted from the line-by-line coding is included in Appendix E.

Focused coding. The second phase of coding following a grounded theory approach is focused coding. Focused codes are more selective than line-by-line codes, and tend to synthesize and condense larger amounts of data in a systematic way that allow researchers to start identifying patterns in the data (Charmaz, 2006). Upon reviewing the line-by-line codes, focused codes were created after important categories and themes emerged from the line-by-line coding.

In addition, subcategories emerged that further organized and described a major category. The strategy of developing dimensions to categories through the use of subcategories is referred to as axial coding (Strauss, 1998). While formal axial coding was not utilized, I found it helpful to develop subcategories and categories in order to

link the data together more completely. Each focused code was mutually exclusive and helped to capture and describe emergent themes from the data.

Both researchers deliberated and agreed upon each focused code. After coding three interviews using the initial list of focused codes, the researchers met to review the focused codes, resolve any discrepancies, and discuss emerging themes. During this process of developing codes and categories, the researchers did not have access to the survey data results, which is typical of a mixed methods convergent parallel design (Creswell & Clark, 2011).

The external auditor was given an initial list of focused coding categories with definitions for each category/subcategory and a complete list of codes that that fell under each category. She reviewed and provided feedback on the list of focused codes, which was then incorporated into the coding scheme. See Appendix F for the initial list of focused codes sent to the external auditor.

Feedback from the external auditor was used to revise the focused codes further. She recommended renaming some of the categories to make them more mutually exclusive and descriptive. For example, she suggested changing the category name "Side Effects" to "Gains From Playing Rugby." In addition, she recommended breaking down some of the subcategories into tertiary categories to ensure that every subcategory topic and definition fit with the associated codes. For example, for the subcategory "Emotional" under "Gains From Playing Rugby," she suggested breaking it down further into "Positive Emotional Effects" and "Negative Emotional Effects." With the help of the external auditor, I was able to keep the categories mutually exclusive and sharpen the associated definitions of each category.

In addition, the external auditor was consulted on the issue of saturation. From a grounded theory approach, Charmaz (2006) discusses the importance of having rich and sufficient data opposed to focusing on the number of participants sampled. Important to this determination is the notion of saturation, which is where additional interviews would not elicit additional theoretical insights or new information. Once saturation seems to be achieved, additional data collection is no longer necessary. After reviewing a complete list of focused codes, the external auditor said that a case could be made for saturation. The researchers discussed how there was redundancy in the responses of participants and each category of the coding schema was comprised of codes representative from all participants. Further, the data from each interview was determined to be rich and descriptive due to the length and detail of the questions asked and responses given.

A final attempt at participant recruitment was made with no success. Due to the limited size of the sample being drawn from, which was comprised of 20 individuals, and the inability to recruit additional participants despite multiple attempts, data collection was stopped at this time. Therefore, the present study is considered a "pilot study," with theory being developed from the available data with the understanding that additional data would potentially yield a more comprehensive and detailed theoretical framework.

Theoretical coding. Once a final coding schema of focused codes was agreed upon, the researchers began the process of theoretical coding. Theoretical codes "specify possible relationships between categories you have developed in your focused coding" (Charmaz, 2006, p. 63). Theoretical codes are integrative and allow

researchers to conceptualize focused codes, determine how they are related, and begin

to develop a theoretical story. A theoretical framework was developed through

multiple research meetings and discussions between the researchers. A detailed

description of the theories that emerged from the focused coding, with representative

quotes to support the proposed theory are included in Appendix I.

Memo-writing. Another tool used in the development of grounded theory for

this study was memo-writing. Charmaz (2006) discusses memo-writing as the

intermediate step between collecting data, and writing up the results of a study.

Memos are used to analyze ideas about codes, patterns, and any emerging theory that

is becoming evident to the researcher. Memo-writing has been compared to reflective

journaling, whereby the researcher is reflecting upon his or her own impressions of the

emerging data (Charmaz, 2006). Memos were used throughout the data analysis phase

in attempt to be closely and actively involved in the analysis of data from the start. I

wrote a series of memos anytime I would have an important observation, idea, insight,

or make a connection between the data I was analyzing. I also used memos to guide my

analysis and I shared all of my memos during research meetings to evaluate my own

assumptions and spark theoretical discussions with the co-researcher of this study.

Diagramming. Diagramming is a tool that can be used to provide a visual

representation of memos, categories, and the relationships and patterns that are

emerging from coding. Creating visual images of emerging theories is said to be a

critical component of grounded theory methods (Clarke, 2005). For the present study,

a thematic map was used – relationships between themes and categories were mapped

out to illustrate and describe how categories influence and relate to one another. For

each theme, there are accompanied narratives and descriptions to support the data that has been captured by each theme's title. Finally, the themes were analyzed at the latent level, meaning they were analyzed beyond the semantic content of the data and the researchers attempted to examine and conceptualize underlying theories and assumptions (Braun & Clark, 2006). This latent-level analysis is essentially an analytic narrative that makes claims about the extracted data and relevant themes in relation to my research questions and existing literature. See Appendix J for the resulting thematic map.

Integration Phase. After both the quantitative and qualitative data were collected and analyzed separately using their respective analytic approaches, I began the integration phase of data analysis. The two sets of data were related to each other to facilitate comparisons and interpretations. In the final step of a convergent parallel mixed method design, the researcher interprets to what extent and in what ways the two sets of results converge, diverge from each other, relate to each other, and/or combine to create a better understanding in response to the study's overall purpose (Creswell & Clark, 2011). Mixing, or the explicit interrelating of the quantitative and qualitative strands of the study, occurred during the integration phase of this study.

For this merged data analysis phase, a side-by-side comparison of the merged data will be used to compare results. Both the quantitative results and qualitative results will be presented in a summary table so that they can be compared. In Chapter IV, a discussion will be presented based on the converging and diverging data that is merged in this summary table (See Table 2, Chapter IV).

Chapter IV

Results

Quantitative Results

In this chapter, I present the results from the qualitative and quantitative strands of this study. First, I will present the quantitative results. To compare mean scores of aggression across two time points of the rugby season, paired samples t tests were performed using SPSS software. The same seven participants were tested at Time 1 (before rugby season commenced) and Time 2 (mid-way through rugby season) on seven measures of aggression: Proactive Aggression, Reactive Aggression, Total Aggression, Physical Aggression, Verbal Aggression, Anger, and Hostility. Results indicated that there were no statistically significant differences in the mean scores of the seven aggression variables between Time 1 and Time 2 for the seven participants. In other words, self-reported ratings of aggression did not differ from Time 1 and Time 2 based on a series of paired samples t-tests. The results are summarized in Table 1 on the following page.

Table 1. Changes in Mean Aggression Scores at T1 and T2 (n = 7)

Variable	Time 1 M(SD)	Time 2 M(SD)	t	d
Proactive Aggression	4.71(2.23)	5.43(2.30)	-.92	.30
Reactive Aggression	9.43(2.89)	10.71(3.64)	-.90	.40
Total Aggression	71.00(12.07)	85.23(18.51)	-1.87	.91
Physical Aggression	21.71(1.98)	27.14(7.38)	-2.14	.11
Verbal Aggression	14.86(3.08)	17.14(1.68)	-1.68	.88
Anger	14.86(4.22)	18.29(7.72)	-1.07	.55
Hostility	19.57(5.74)	22.57(3.51)	-1.78	.63

Note. Paired-Samples t test. M = mean; SD = standard deviation, d = effect size ratio.

Due to the small sample size of seven, it was anticipated that statistically significant results would not be found by computing the paired samples t-tests. Therefore, Cohen's d was also calculated as a measure of effect size to examine the practical significance of the results. Total Aggression (d = 0.91) and Verbal Aggression (d = 0.88) variables were above the large effect cut-off (d = 0.80) recommended by Cohen (1998); Anger (d = 0.55) and Hostility (d = 0.63) variables exceeded the medium effect cut-off (d = 0.50), and Proactive Aggression (d = 0.30) and Reactive Aggression (d = 0.40) were greater than the small effect size convention (d = 0.20).

Post-Hoc Analyses.

For the purpose of triangulation of results and greater exploration of quantitative data, I computed additional post-hoc analyses of the quantitative data to include all three time-points measured, and all participants sampled. Two repeated

measures analysis of variance (ANOVA) were used to explore a.) the mean differences between scores on Reactive Aggression and Proactive Aggression from pre-season, mid-season, and post-season, and b.) the mean differences between scores on Physical Aggression, Verbal Aggression, Anger, Hostility, and Total Aggression at the three different time points measured. Alpha levels were adjusted using a Bonferonni correction to control for family-wise error. Results from these repeated measures and additional post-hoc analyses are summarized in Table 2. Results indicate that there are no significant differences between these various measures of aggression across the three time points of the rugby season that were measured.

Table 2. Post-Hoc Analyses: Summary of Repeated Measures ANOVA *(N = 52)*

Measures	Time 1 M(SD)	Time 2 M(SD)	Time 3 M(SD)	F	p	d	Group Comparisons
Emotion Regulation	109.14 (16.04)	100.50 (24.75)	95.36 (7.41)	6.25*	.01	.46	Time 3<Time 1
Alcohol	10.39 (1.61)	13.61 (1.69)	11.71 (2.09)	.20	.66	.02	
Proactive Aggression	3.20 (.60)	3.53 (.76)	3.07 (.83)	.02	.90	.06	
Reactive Aggression	7.23 (3.45)	8.61 (4.16)	9.46 (5.52)	.02	.99	.15	
Hostility	19.27 (1.83)	21.09 (2.03)	19.73 (1.61)	.04	.86	.00	
Anger	14.58 (1.00)	15.00 (1.88)	16.33 (.73)	1.58	.24	.13	
Physical Aggression	20.42 (.66)	24.92 (2.44)	23.67 (1.63)	3.14	.10	.22	
Verbal Aggression	14.00 (.90)	15.58 (1.16)	16.83 (1.34)	3.51	.09	.24	
Total Aggression	68.42 (3.66)	73.58 (7.05)	74.83 (3.69)	1.09	.32	.09	

Note. *$p < 0.01$

In addition to computing a repeated measures ANOVA, Cohen's *d* was also calculated as a measure of effect size to determine if there might be practical significance for the size of difference between the mean scores of aggression. Using Cohen's *d* convention (Cohen, 1988), it was found that Verbal Aggression (*d* = 0.24) and Physical Aggression (*d* = 0.22) were greater than the small effect size convention (*d* = 0.20). Therefore, it's possible that there is some small change in verbal aggression and physical aggression across the rugby season for this cohort of rugby players.

In the qualitative results, findings suggest that there may be a relationship between physical aggression and alcohol use. This suggested positive relationship between alcohol consumption and the likelihood of off-field aggression is important to consider in the context of rugby since research has indicated that alcohol consumption is part of the culture associated with the sport of rugby (Lawson & Evans, 1992; Quarrie et al., 1996). Therefore, I computed post-hoc analyses to examine the mean differences for scores of alcohol across the rugby season in order to explore congruent or discrepant results that may help corroborate or refute the qualitative emergent themes. I computed a repeated measures ANOVA to examine the mean differences for scores of alcohol at the three time points measured; no statistically significant results were found (see Table 2). Cohen's *d* was also calculated as a measure of effect size, but no significant effect size was found (*d* = 0.02).

Although results from the repeated measures ANOVA for alcohol suggest that there were no statistically or practically significant differences between scores of alcohol across the rugby season, it is notable that the mean alcohol scores at each time point were greater than 10, which according to the AUDIT (Babor, 2010) represents a

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"medium level of alcohol problems." Scores between 8 and 15 on the AUDIT fall in this medium level range, and indicate that education on the reducing hazardous drinking will likely be beneficial.

It has been found that the effects of alcohol on aggression may be more pronounced in men who have a moderate level of trait anger to begin with (Parrot & Zeichner, 2002). Even without alcohol, some research has found that heightened levels of trait anger are positively correlated with physically aggressive behavior (Buss & Perry, 1992; Smits & Kupens, 2005). Therefore, it could be that young men who sign up for rugby may have some moderate levels of trait anger to begin with (as described by some of the participants during their interviews), and therefore the relationship between aggression and alcohol for rugby players would be consistent with the literature.

I also computed post-hoc analyses to examine the mean differences for scores of emotion regulation across the rugby season, because emotion regulation was considered a byproduct of rugby participation according to emergent themes from the qualitative data analysis. A repeated measures ANOVA was conducted to compare the effects of different times during a rugby season on scores of emotion regulation. A Bonferonni correction was made to control for family-wise error. There was a significant effect of time, Wilks' Lambda = .49, F (2, 12) = 6.25, $p<.05$, $d=.464$. Furthermore, there was a significant difference in the scores for Time 1, before the season commenced, ($M=109.14$, $SD=4.23$) and Time 3, the conclusion of the season ($M=95.36$, $SD=1.98$). Lower ratings of emotion regulation indicate a belief that one cannot alleviate one's own negative moods. Researchers also found that individuals

with lower perceived emotion regulation may experience more negative affect, and maladaptive coping strategies (Gross, 2002).

These results indicate that across the course of a rugby season, there may be an effect on emotion regulation. Specifically, these results suggest that before training commenced, this sample of rugby players had significantly higher raw scores on a measure of emotion regulation compared to their scores at the conclusion of the rugby season. However, there is no real difference in emotion regulation when comparing Time 1, before training commenced, and Time 2, before the first season game.

To examine the practical significance of the above results, Cohen's d was also calculated as a measure of effect size. It was found that the effect size for Emotion Regulation ($d = 0.46$) was greater than the small effect size convention ($d = 0.20$). This indicates that there may be a small effect, or practically significant difference between the scores of Emotion Regulation across the three time points of the rugby season measured in this study.

Although results from these post-hoc analyses suggest that this sample of rugby players may have lower self-reported ratings of emotional regulation at the conclusion of the season, the qualitative data provides a different perspective. Participants described that through participation in rugby they learned how to "control aggression" and "shrug off things" that would otherwise be hurtful. It could be that throughout the rugby season these athletes may have struggled to contain their negative affect on the field (despite being taught to do so), and subsequently lost confidence in their ability to alleviate such negative moods. Future studies should aim to identify long-term trends

in emotion regulation and aggression expression for athletes previously involved in collision sports to examine if there may be enduring influences.

Qualitative Results

In this section, I address the results from the qualitative strand of this study. The results from the theoretical coding are discussed and outlined below. These results emerged through an examination of the relationship between participating in rugby and off-field aggression. Through this theoretical analysis, I attempt to clarify and explain what the relationship is between rugby and aggression, and what factors may or may not influence it according to the qualitative data results. The qualitative results section will include supporting literature and further explanation that might traditionally be found in a discussion section, in attempt to clarify and explain the results in greater detail. The discussion section will focus on the convergent/divergent results, as well as noteworthy findings and implications based on the emergent themes and theory described in this section.

Results from emergent themes suggest that there are three layers of influences that impact the relationship between participation in rugby and off-field aggression. These three influences are 1.) Influences prior to rugby participation, 2.) Influences resulting from rugby participation, and 3.) Influences external to rugby participation. Within each of these three influences are associated factors and subcategories that also influence the relationship between off-field aggression and rugby participation; they are outlined and described in greater detail in the sections below. Also, see Appendix H for a final list of the theoretical codes, and Appendix I for a comprehensive list of all the

theoretical codes and supporting quotes. In addition, Appendix J contains a thematic

map, which visually depicts the theoretical codes that emerged from the data.

Influences Prior to Rugby Participation.

Each of the participants discussed how before their participation in rugby, there

were aspects of their upbringing (e.g., messages received from parents and family) and

perceptions of inherent aspects of themselves that influenced the likelihood of whether

or not they engaged in off-field aggression after participating in rugby. The three

categories that emerged that influenced off-field aggression before commencing in

participation of rugby included: Internal Protective Factors, Learned Messages, and

Internal Risk Factors. Each category is discussed below.

Internal protective factors. Internal protective factors refer to inherent aspects

of a person that protect against the likelihood of a rugby player engaging in off-field

aggression. In particular, participants discussed how their personalities and

temperaments can serve as protective factors against engaging in physical fights.

Arthur described why he is unlikely to engage in off-field aggression: "I mean,

obviously there are certain moments with certain people that provoke me more than

others. But generally, I'm a pretty happy, passive person. I was raised in a very passive

area." In addition, Tino discussed how he is unlikely to get in fights because of the type

of person he perceives himself to be: "Like I would never go out looking for a

fight…that's just not who I am…that's drama and conflict for no reason."

Internal risk factors. In addition to there being inherent aspects of oneself that

may protect against the likelihood of getting in physical fights, participants also

referenced aspects about oneself that may contribute to, or lead to engagement in off-

field aggression. Pepe described what he called the "anger gene" and suggested that successful rugby players likely have some inherent anger that may fuel off-field aggression. He stated:

> "Because to play rugby, you kind of have to have that anger gene…that thing of aggression towards people, but you still have to be respectful. But some people don't learn that, you know? And it takes them awhile to get up to speed and to learn that…to be calm and stuff. I know it actually took me awhile."

Cookie also referenced the idea that some rugby players are inherently aggressive and drawn to engaging in aggression, be it on-field or off-field, which is what drew them to the sport. He said, "I wouldn't say rugby fuels it (off-field aggression), but I would say rugby players are aggressive people, so naturally, we are kind of drawn to aggression." Pepe also notes the role of inherent levels of testosterone and fighting, "With all of the anger and testosterone and everything, people get angry and physical fights will happen. You know, boys and men will be boys."

Learned messages from family. In addition to inherent aspects of one's self that may influence the likelihood of whether they engage in fights, each participant discussed messages they received from family members that seemingly influenced their schema of when/whether it is acceptable to engage in physical fights. Although the participants all received varied messages from their families about fighting, each participant described receiving pre-existing messages before their involvement in rugby. Therefore, one must consider the influence that these messages have had on each participant's perception of whether it is acceptable to engage in off-field aggression.

Two participants discussed the messages they received from their mothers about off-field aggression. Pepe stated, "…My mom is terrified of me fighting. She

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couldn't stand if and when it happens, you know? She's definitely opposed to it, and that's why she ended up putting me in sports...that's why she likes rugby so much." Arthur also shared the influence of his mother, and how through her modeling and open discussions, he learned to solve conflict through non-physical means: "My mother...She's always been the supportive figure, and we've always been able to talk about anything. And so...through her model, she's passed on to me that pretty much anything you need to deal with, it can be through words instead of actions."

Another participant, Flaco, described the messages he received from his parents about the impact of his racial identity on his decision to engage in physical fights: "Being African American in America, of course my parents advised me not to attract any unwanted attention to myself on the street. That's just a lesson learned in life. They told me not to get in fights at all."

Two participants discussed how the messages they received from their families about off-field aggression were not as direct, but rather, were more situational and rely upon an individual judgment call about whether or not it is acceptable to engage in off-field aggression. Cookie said: "I mean, they've (parents) always been against me fighting. But they know I'm an adult now, and they know whatever happens, happens. I mean, they've always been against me fighting I would say. Like they know if I were to get in a fight...it happens. My dad just says, you better not be fighting over something stupid." Tino also discussed how the messages he received from his family about fighting are dependent on the situation:

"Actually, that's probably another reason why I had never gotten into a fight, because of how my grandfather, my uncle, and my mom actually, and her sister, and the rest of the family is…if you get into a fight, you better win. Like if you get your ass kicked and you get home, you're gonna get your ass kicked again by everybody else. If you're gonna get into a fight with anybody, you better be damn sure you're going to win. Or if you're getting jumped by someone, if it's three or more people, then it's fine to just run. That's basically how my family is."

Influences Resulting From Rugby Participation.

In addition to the factors discussed above that may influence someone's likelihood of engaging in off-field aggression, participants described several factors that they believe influence one's engagement in off-field aggression through the participants' actual participation in rugby. These factors are divided into the categories of "Associated Gains," "Associated Risks," and "Learned Messages" are discussed below.

Associated gains. From the data emerged many themes whereby participants described how participating in rugby was associated with positive gains that resulted from their participation. The "Associated Gains" have been categorized into the following subcategories: Identity Development, Relational Gains, Emotional Gains, Physical Gains, Life Lessons, and Opportunities. Each subcategory will be described in greater detail below.

Identity development. This subcategory describes participants' accounts of how rugby impacted their perceptions of self, and the subsequent identity development resulting from their participation in rugby. Participants' discussed the global impact rugby had on transforming their lives and identity: "I would say rugby has completely changed my life. I would definitely not be the same person I am today without it," said Cookie. Tino echoed this sentiment and stated, "I wouldn't have gone as far without

rugby, or at least, not as smoothly. It has helped me with a lot of things." Arthur also described how he has transformed through participation in rugby: "So far…I like who I am, and who I am becoming because of rugby…pretty much like the whole scheme of things from…my physique to how interacting with other teammates is affecting my personality, which is pretty nice." Further, Pepe discussed the personal identity development that ensued through his rugby participation, "Rugby is one of the main reasons um…for my transition from a boy into a man." The theme of identity development and transformation is salient through all of these quotes, and supports research findings that participation in athletics can impact individuals' sense of self-efficacy and identity (Danish, Forneris, Hodge, & Heke, 2004; Feltz & Lirgg, 2001).

Relational gains. This code describes the relational gains that participants' noted, which resulted from their participation in rugby. Comments that created this subcode were richly descriptive, as participants detailed how participating in rugby contributed to them making friends, advancing their social skills, and having an important relationship with their coach. Because participants' relationship with coach was frequently discussed, it emerged as a tertiary category under relational gains, and will be discussed further below.

Every participant in this study discussed how participating in rugby has given them a sense of camaraderie and friendship with their teammates, which was often described as a "brotherhood." Cookie described it like this: "Well I just say that rugby is more of a mold for that type of brotherhood relationship, instead of different sports like track and stuff…I don't know, it's more of a brotherhood and camaraderie-type game." Pepe described the "brotherhood" in this way: "When you're playing rugby, you

develop a sense of brotherhood with these guys…they're all your brothers, and if you let them down, it's a big deal once you get that close to people." Flaco stated that the brotherhood he felt from playing rugby is what kept him attracted to the sport: "I like the camaraderie, all the brotherhood and whatnot. That's what kept me playing." Cookie took the notion of "brotherhood" even further by describing how the "brotherhood" is the element of rugby that is curative and transformative for those who may feel predisposed to aggressive tendencies: "I would say rugby players have aggression and the rugby game is the outlet, but I would say that it's having that brotherhood and group of friends is how you're going to not get in trouble all of the time you're not at rugby. Like that's the part that fixes people." Cookie also discussed how he has friends who play rugby and rely heavily on this "brotherhood" to keep them out of trouble: "…if they didn't have rugby, they would have even more problems and could be in jail and stuff like that. I have a lot of Polynesian friends who say this to this day, 'If I didn't have you guys as my rugby team with all this, I would probably be in jail right now.'"

In addition to the friendships made, participants described how participating in rugby expanded their social skills and social networks beyond just their teammates specifically. For example, Arthur stated, "I don't know, it expands me socially because regardless of whether I get along with someone or not, I kind of have to communicate with them because we are part of a team. So, it has made me more socially adaptable." Cookie also described how the social network he has connected with through rugby extends beyond just his teammates and team:

"The people I have met and the places I have gone with rugby…there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington DC, Colorado, Massachusetts. All because of rugby. And I've made friends and relationships in all of those different places. And rugby is the type of sport where you can go and stay in contact with those people…you just be like, 'hey, I'm in England, can you pick me up?' And that's the type of thing that would be completely fine to do. It's a very unique sport in that way; the relationships you make are going to be there if you talk to them every day or if you've met them one time."

Also, the impact of the relationship the participants described having with their rugby coaches was noteworthy. This social relationship seemed to benefit the participants beyond the context of rugby, and had an impact on different aspects of their lives, including teaching "morals," timeliness, emotional regulation, as well as encouraging participants to earn good grades, and achieve future goals. For example, Cookie described how his coach taught him various things outside of rugby:

"I was really blessed with a good coach in high school. Like he taught us all the extra things that…he was just that one person…like, he'll always be on my resume as the one person to call, he really kind of shaped my life…like bringing us up as men. And as good athletes. Like always getting to practice on time, like if you're at practice 15 minutes before practice you're on time, and if you show up on time, you're late. And if you're late, you better be sprinting to practice. But we didn't just get away with it, we were just held to such a strict standard, like it just kind of molded my life, like the way I operate. "

Tino described the impact his coach had on him pursuing a college degree through participation in college rugby:

"Um…and then, my coach started talking to me and the other players and telling us about colleges you can play at, and I wasn't even planning on really going to college, my mom of course already told me to go. I just figured I would start working like everyone else and just try to save it up. But once my coach started talking to me about playing college rugby, I got more into it, and I mainly came to X city just for rugby because I was never in top shape at school."

Pepe, Cookie, and Tino all discussed how their rugby coach became like a "second dad" or "father figure" to them. As Pepe described it:

"My high school coach was big on respect and building character, and with me, I didn't have a father figure for a long time, so my coach kind of became that father figure and…he did a great job kind of introducing us to be like…we're the same people off the field and on the field…so it effects more than just yourself if you make bad decisions…because you represent a lot more than just yourself…you represent your parents and everything. And I feel like rugby really grew me up…I wouldn't be the man I am today without rugby."

Emotional gains. Through participation in rugby, participants noted that there were resulting emotional gains. In particular, the emotional gains have been divided into two separate categories: Emotional Outlet, and Emotional Regulation. These tertiary codes will be discussed further below and examples will be given to support these findings.

Participants described how rugby serves as an emotional outlet, which they would describe as a positive aspect resulting from their participation in rugby. Flaco described how he has an "aggressive personality" and that through rugby, he has been given an outlet:

"I think that I have a very aggressive personality and I always have, and it has taken me a lot throughout my life to control my anger. And I can control it now, but rugby just helps me…I don't know…yeah, I guess I do have a lot of pent up anger. Rugby is my outlet. I don't enjoy the summertime because there is a lot less rugby in the summertime."

Tino also described how playing rugby serves as an outlet for stress:

"Throughout all high school, and even now, whenever I just get stressed, me going to practice, just going through drills, helps me … lets me get rid of some of that stress." Arthur described the emotional outlet of rugby as a time to "escape whatever problems you have" and "resolve internal issues." Pepe stated that rugby serves as his "stress-reliever" where is able to let out pent up anger, aggression, testosterone, and emotion. He noted that when he is unable to play rugby, he experiences a "build up" of stress.

The value Pepe places on the emotional outlet that rugby serves for him is particularly

profound in the following quote:

> "You know, I've had some kind of trouble with my dad leaving and stuff. And so,
> you know…anybody…any boy who's had like their parents split up and stuff at a
> young age and…had to go through poverty and stuff like that…has some built up
> aggression. And I think having an outlet to let it all out…you know, it's good…in
> a safe and *controlled* manner that teaches you morals and character and
> respect…I couldn't think of a better way to do it."

In addition to the emotional outlet that is gained through participation in rugby,

participants also described how rugby has taught them emotional regulation and

management. Flaco described how he was an "angry kid" and "rugby very much taught

me how to control my aggression." Arthur also reported that rugby taught him how to

regulate his emotions when it comes to assessing what he should emotionally respond

to and take seriously versus shrug off. He stated: "Well…for instance, like, I don't…like

certain things don't hurt me, or certain things you just shrug off. Like, when

people…like, in rugby people give each other shit all the time, so when we're messing

around with each other…it really doesn't impact me…I don't take anything personal."

Physical gains. Not only were there noted emotional gains as a result of

participating in rugby, but participants described the physical gains that they observed

as well. Arthur stated that playing rugby has made him "far more physically active and

healthy" and went on to say, "…It motivates me to work out when I'm not playing rugby

just so I can be more fit *to* play rugby." Flaco noted how playing rugby has transformed

his body: "I used to be fat and now I'm pretty muscular," and described feeling

"stronger" and having a higher "pain tolerance."

Life lessons. This code is used to describe participants' accounts of life lessons

that were acquired as a result of their participation in rugby. Life lessons can be

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defined as something from which useful knowledge or principles can be learned. One such life lesson that Pepe described was responsibility: "It gave me…such growing up, it gave me a place I had to be, it taught me responsibility, like I had to be here…like it wasn't just one person counting on me, I had a bunch of people counting on me…and I didn't want to let my friends down." He also described how he was taught "morals" through rugby, and the importance of helping others through "community service" that was a requirement on his high school rugby team.

Both Arthur and Cookie discussed how rugby taught them the importance of time management. As Arthur stated, "It makes me prioritize my time because rugby is a certain schedule and studying isn't, necessarily. You know, like, I can study whenever but I can't go to practice whenever. So….it really makes me prioritize what times I should use for studying and what times I have for leisure." He also noted that rugby taught him how to "be cooperative with other people," which can also be considered a life lesson.

Flaco described the multitude of ways that rugby taught him life lessons, including "how to get along with other people," "how to use an entire team to achieve one goal," and "leadership qualities." Further, he described how rugby gave him an after school outlet and he consequently started spending less time with the gang members that he had been hanging out with prior to his involvement in rugby. Here, Flaco summarized how he was able to stay out of trouble through his involvement in rugby, a useful lesson he learned and became aware of upon reflection of his experience with the sport:

"Honestly, when I was in middle school, I wasn't…I was kind of going on along a bad road, I guess a lot of people would say. And I don't know, rugby just kept me in line, rugby and coaches, and I don't know, my teammates, just kept me a straight and arrow, took me to college (laughs)…You know, kept me out of trouble."

Opportunities. Another code under the category of "Associated Gains" that emerged through theoretical coding was "Opportunities." In particular, travel and academic opportunities emerged as noteworthy opportunities.

Participants described how they were able to travel to places they never would have had the opportunity to visit if it were not for rugby. As Cookie said, "The people I have met and the places I have gone with rugby…there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington, DC, Colorado, Massachusetts. All because of rugby." Pepe also noted the value of the travel opportunities he experienced as a result of playing rugby:

"I played all through high school and got the chance to travel to England and Wales. I played in Italy my freshman year and I've been to Canada four times for rugby, and a few years ago I went to Argentina to play. So I've been all over the world and it's given me a lot of opportunities I don't think I would have had without it. So it's had a huge effect on my life."

Related to traveling, participants described how playing rugby took them further academically, and at times, even dictated where they ended up for college, and whether they attended college at all. Pepe stated, "I don't think I'd be in college if it weren't for rugby. Rugby is what I love to do…and like…I came to (name of college omitted) college because they had a good rugby team…and I wouldn't be here if they didn't have a rugby team." Flaco shared this sentiment, "I definitely would not have gone to college if it weren't for rugby. I'm only here for rugby…because of rugby." Tino also described the academic impact he experienced from participating in rugby:

"My coach started talking to me and the other players and telling us about colleges you can play at, and I wasn't even planning on really going to college, my mom of course already told me to go. I just figured I would start working like everyone else and just try to save it up. But once my coach started talking to me about playing college rugby, I got more into it, and I mainly came to (name of city omitted) city just for rugby because I was never in top shape at school...I cut classes quite a bit and never really got interested in the subjects, and uh...I just came for rugby season, but then I started actually doing my stuff in school and I went from a 1.9 to 3.8 last semester."

Learned messages about fighting. This code describes the messages about fighting that are learned through participation in rugby. These specific messages are further broken down into the following subcodes: Culture of Rugby, Coach, and Teammate. In addition, there is a tertiary code of "Gentleman's Game" that emerged and falls under the subcode, "Culture of Rugby." These separate messages are outlined below.

Culture of rugby. This subcode labels messages that participants received about off-field aggression from the culture of rugby itself. Several of the participants discussed how the culture of rugby makes a clear distinction between the acceptance of being physically aggressive on-field opposed to being physically aggressive off-field. In particular, participants described how you "leave it (one's aggression) on the field" and the importance of the "becoming friends (with one's opponents) after the game." Cookie described the lessons he has learned from the culture of rugby about the importance of separating on-field and off-field aggression:

"It's a brotherhood game, like it's not out there to kill each other...like it's a game where you beat each other up on the fields, and then afterwards you enjoy each other's company. And some teams understand that culture, and some teams don't, I would say that. Like it describes the type of club, the type of team that you are...Like whether you can separate that on-field and off-field aggression."

Pepe also described limiting one's physical aggression to on-field aggression

and the importance of the social gatherings that occur after the rugby match:

> "But in rugby, you're taught to leave everything on the field. So like, after games, it's required to have a little social with the other guys, like, in Wales, I had a beer with the guy who broke my nose in a fight, you know? He bought me a beer and we sang songs and everything. I'm the happiest guy after the game, but during the game, it got really rough, you know? It's just one of the beautiful things about rugby…that you just leave everything on the field."

He goes on to describe the messages he received from the "culture of rugby" in greater

detail:

> "The culture of rugby always um…it's a good culture and…if you have a coach that really knows it, who's been taught by that…rugby is such a family, that…it's always trying to turn boys into gentleman…that's the great thing about it. It teaches you to have to become a man. And getting into fights on the streets…you just get into trouble and everything, and…it really teaches you that you have that Friday/Saturday night to let your aggression out, and you need to learn to save it until then, and then, let it out then instead of trying to let it out anywhere else. And so, I've had coaches tell me that and stuff. It teaches you how to be gentleman…and still play in a barbaric way."

Many participants used the verbiage "Gentlemen's Game" to describe the game

of rugby and associated behaviors. Pepe stated that he learned from the sport, ""Really,

ideally, you really don't ever want to get in a fight, because in rugby, you are taught to

be a gentleman." Flaco described rugby as "elegant" and stated, "They say rugby is a

gentleman's sport, played by beasts. And they expect everybody on the field to be best

friends. Like you're playing against each other, it's going to be crazy, but after the game,

keep it cool. Everyone's fine…everyone's drinking together…everyone's eating

together." Every participant seemed to describe the delicate balance between playing

in a "barbaric" or "crazy" or "aggressive" way, while maintaining a degree of civility and

gentlemanliness. It's as though the culture of rugby teaches these principles and may

be the vessel for which this duality is taught. Arthur cited one of his former coaches

who would differentiate between football and rugby in the following way: "'Football is a gentleman's game for hooligans, and rugby is a hooligan's game for gentleman.'" Again, this supports the idea that the aggressiveness of rugby is limited to within the context of the game, and is held in a high regard by the individual players who are being taught to be "gentlemen."

Coach. The impact of the relationship between the coach and player was discussed earlier. However, for this particular subcode, it is used to describe *messages,* specifically about off-field aggression that the participants have received from their coaches. Almost all participants seemed to describe that their coaches did not condone off-field aggression. Arthur described one coach's stance on off-field aggression: "Don't do it. You can't play if you're in jail." Flaco stated that he got the message from his coach to contain physical aggression to game settings, and abstain from off-field aggression. He noted a particular chant his team would say to capture this sentiment:

> "We had a…before every game we had a chant we did, where we'd start yelling 'control, rage, control, rage', it was like…a captain in the middle and then everybody else and it starts with a whisper and then gets really loud. He (the coach) was basically telling us that your anger is good, if you use it in the right way, and if you use it in the wrong way, like, you're going to get beat every single time. So he just told us to take our anger and point it in a direction and shoot. And that's just what I do."

Teammates. In addition to messages from coaches, participants discussed the messages they received from their rugby teammates about off-field aggression. These learned messages appeared to be a bit more variable. Pepe stated the following about the messages he has received from teammates: "I've gotten all different types of messages. There are some (teammates) that are respectful and there are others that just wanna wreak havoc on the world." Tino described how some of his teammates

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welcome off-field aggression, but stated that they will often show "respect towards each other" after the fight. Flaco stated that the messages he received from his teammates about fighting is "I got your back, you got mine," which might be in relation to the notion of "brotherhood" that is referenced throughout the data and will be further discussed and analyzed in the discussion section.

   Associated risks. Although positive gains resulting from playing rugby were cited more frequently in the participants' transcriptions, there was also mention of associated risks whereby participation in rugby may directly or indirectly influence the likelihood of off-field aggression. Pepe described one such risk as the time in the "off season" when he does not participate in rugby. He said, "So when you've been playing (rugby) for so long, when you've been playing sports, your body and emotions get used to letting it all out once a week. And then when you're in the off-season, you don't have that, so it gets all built up, and people will get more aggressive than they usually are." Tino also discussed how in particular cities, there may be an increased risk of off-field aggression because rugby players from these cities are known to get into fights.

   Under the category of "Associated Risks" emerged the subcategory "Team Mentality," which captures the dichotomy of how the "brotherhood" of this sport can also become dangerous. It can be theorized from the data that the close bonds and camaraderie associated with the sport might also contribute to a team mentality that endorses off-field aggression. In particular, because of the loyalty of this "brotherhood" that is described, like in a family system, one might engage in off-field aggression out of loyalty to their teammates who are described as "brothers." For example, Cookie described the risk of being with his team all together: "I would say, rugby players,

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when we're in a squad, when we're all together, we are definitely more aggressive than when we're not." Tino also described the loyalty that he feels toward his teammates through language one might use to describe his or her family:

> "From my experience, it might be the same as how I was with like respect toward people, or if you see someone disrespecting one of your teammates…like you're obviously gonna come up and see what the problem is because after you spend so much time together, it basically is your family, so if I'm talking to someone and one of my teammates sees them like push me or something, then automatically, a majority of the time they're gonna come up and start getting into it, or try to break it off…like an older brother would."

Tino also went on to describe the "chain reaction" that can occur if one teammate starts fighting and then the rest of the teammates feel "obligated to get into it" too. Again, this obligation and loyalty to one's teammates can seemingly have both positive and negative outcomes. Flaco also described this dark duality of brotherhood that emerged from the data. He stated, "If one person on your team that generally is a dick, and if he goes and gets in a fight with somebody else, of course the entire team is going to start fighting." Arthur went so far as to say that engaging in off-field aggression with teammates can sometimes be perceived as a "team bonding" experience:

> "Sometimes, it's actually more of a team bonding experience because there are certain things that can happen. Like one, if you get in a fight with someone not on the rugby team, and, you know, you're there with you're teammates…then that's more of a cohesive, like bonding experience."

The dichotomy of "brotherhood" described above and the subsequent "team mentality" that can emerge seems to be a prominent risk associated with participation in rugby that could contribute to an increase in off-field aggression.

Influences External to Rugby Participation.

The third influence, or theoretical category, that emerged describes the different influences that are external, or not directly related to participation in rugby, that may influence the likelihood of participants' engaging in off-field aggression. This category has been further delineated into two subcategories: External Risk Factors for aggression, and External Protective Factors against the likelihood aggression. A closer examination of how these two subcategories influence off-field aggression outside the context of rugby will be outlined below.

External risk factors. The subcategory of external risk factors was used to label the risk factors, not directly related to participation in rugby, that participants' identified may contribute to off-field-aggression. The most consistent answer each participant mentioned was the use of alcohol contributing to off-field aggression for rugby players. Flaco responded to the question about what factors might increase the likelihood of off-field aggression, and said: "Drinking alcohol (laughs). Definitely drinking. The time that I have been here in college, I have seen, I think every fight that I have seen out here, whether it was between a rugby player or a football player or whatever…it was fueled by alcohol. Every single one." Cookie also made the distinction that whether or not someone plays rugby, alcohol can increase the likelihood of fighting: "…Rage and alcohol fuel people to fight about pretty much anything." Tino also mentions alcohol, but described more nuanced reasons that could contribute to off-field aggression, such as losing a game, high testosterone, being provoked, and being disrespected. His description was as follows:

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"The aptitude to fight would be if we just lost or if we have alcohol in our system. If we have alcohol in our system, and we have a lot of testosterone, especially how us rugby players are when we're drunk, we like to wrestle around or like push people and stuff like that. And so if we're walking down a street, someone …because you have stupid people who are drunk, but we are also slightly drunk…and if they just…put something out like a joke, and if one of us are drunk and we take it serious, it's almost…it's such a hard hassle to break that up because then they automatically feel disrespected and everything all at once, and they're drunk and they just don't care and they don't have common sense to back off. So mainly, for me, it would be alcohol or drugs in your system, or around other people who are drunk as well."

The aspect of being disrespected or provoked, no matter where or what situation, seemed to be an important factor that may increase the likelihood of off-field aggression. Feeling disrespected or wanting to defend someone whom you feel is being disrespected were salient themes that emerged. Tino also described this:

"If I get disrespected, I'm gonna let them know that's disrespectful and give them a warning, you better stop doing that or you're really going to irritate me, and if they keep doing it or like, start punching me, then I'll probably…the temper will come out a little bit and I'll probably start getting a little irritated to where it might start turning into a little bit of a scuffle."

Flaco also shared this sentiment, and said, "But when I think it's acceptable to engage in physical fights…is if you're defending somebody, or if…that's pretty much it. If you're defending somebody." Arthur described how provocation can lead to a fight, "…If there's a conflict, like if a person's being persistent with trying to provoke you…I think, at some point there's no way out of it and it's sometimes the only way people learn." Arthur also went on to discuss how the presence of women can be a factor outside of rugby that may lead to off-field aggression:

"Women. I don't know…if um…it's kind of like a territorial thing almost. Like I don't have a problem myself bringing my girlfriend around, like my rugby teammates at all…I don't judge any one of them. But if certain players are feeling like territorial, so like they…if someone's like a threat to jeopardize their relationship or whatever they're trying to do with a certain girl…that could lead to a physical altercation."

Pepe discussed how problems at home could contribute to off-field aggression for an individual. He also discussed how hanging out with the "wrong crowd" might increase the risk of fighting. Flaco summarized what all of the participants seemed to indirectly express - that it is not necessarily anything specific to rugby itself that would increase the likelihood of a rugby player engaging in off-field aggression. He said: "I don't know if there is anything particular that makes rugby players fight off the field. I just think that they are regular people with emotions and that anybody is going to fight who pissed them off."

External protective factors. In addition to influences external to rugby that may contribute to off-field aggression, participants also described aspects external to their involvement in rugby that may protect against the likelihood of off-field aggression. It should be noted that all participants discussed aspects that were internal protective factors, or aspects of themselves, or factors that existed prior to their participation in rugby. However, for this subcategory, it is used to describe protective factors outside the sport of rugby, and factors that are not necessarily pre-existing factors in a person's life.

Arthur discussed the importance of communication, and how no matter if you play rugby or not, if you can communicate with others well, or others can communicate with you effectively, it may eliminate the risk of potential fights: "Communication. Just like with any relationship...the more that you understand the other person's perspective, the more likely that you won't have a disagreement."

Cookie also discussed how the use of marijuana after games, and consuming alcohol might also decrease the likelihood of engaging in off-field aggression. Although

he thought that alcohol could also increase the likelihood of fighting, he also described

ways in which he thought it might reduce the risk:

> "I would also say alcohol might decrease it at the same time, because I've been in a…it depends on the group of people, definitely, like who you're dealing with. And what the aggression is about. Because like I've had…when we went to England with our team, and we got in a full team brawl with their team…like two of our guys got red carded and then afterwards we were just like, 'alright dude, well that was the game.' The two guys that were…they got in a fight over some BS and at the end of the game, the two guys shook their hand, and we all were invited to the pub and drank together, and we were doing boat races with them an hour later. So it's definitely the culture and the types of people you're dealing with, how easily they can get over the BS, and what will it take to squash whatever you're fighting about."

Chapter V

Discussion

This study was conducted in an effort to explore the relationship between participation in rugby and engagement in off-field aggression for college-aged males. In particular, I was hoping to better understand what factors might influence the likelihood for off-field aggression for a cohort of rugby players. Due to the absence of qualitative studies on this topic, and mixed findings from the few quantitative studies that exist, I sought to add an additional perspective and breadth of understanding by carrying out a mixed methods study. Although results from this study are not definitive and can only be considered preliminary, they offer new directions of inquiry for future studies, and more importantly, incorporate the voice of the participants for the first time. In this chapter, additional considerations and post-hoc analyses will be discussed, and implications of this research as well as future directions of research will be explored. In addition, I will reflect upon the process of carrying out this research project, the challenges I faced along the way, and how I attempted to overcome them.

Triangulation

Triangulation is the process of integrating and interpreting the multiple sources of data and methods (Jick, 1979). For the present study, I blended the quantitative and qualitative data to examine the mixed methods research question of whether results from these two data sets converge and/or diverge. The one research question that both the qualitative and quantitative data were collected to answer was whether there was a relationship between participation in rugby and engagement in off-field aggression. I reviewed the qualitative and quantitative results in the summary table below.

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Table 3.

Summary Table of Qualitative and Quantitative Results

Research Question	Qualitative Results	Quantitative Results
Is there a relationship between participation in rugby and engagement in off-field aggression?	The emergent themes suggested that there are influences through rugby participation that may increase the risk for off-field aggression, and influences that may protect against the likelihood of off-field aggression	Results indicated that there were no statistically significant differences in the mean scores of the seven aggression variables between Time 1 and Time 2

The quantitative results revealed no statistically significant differences in the mean scores of aggression at Time 1 and Time 2, suggesting that participation in rugby may not have influenced the likelihood of rugby players' engaging in off-field aggression. However, emergent themes from the qualitative data reveal that there may be some relationship between rugby participation and off-field aggression.

In particular, themes from the qualitative results suggest there are influences through participation in rugby that may *decrease* the likelihood of engaging in off-field aggression both directly and/or indirectly (e.g., identity development, life lessons, relationships, having an emotional outlet and developing emotion regulation, and learned messages from teammates, family, and the culture of rugby). Additionally, results from the qualitative data suggest there are also factors that may *increase* the likelihood of off-field aggression (e.g., having a team mentality, learned messages, and alcohol use). Thus, the question of whether participation in rugby impacts the likelihood of off-field aggression cannot be easily answered. It is likely that there are complex interactions and influences that impact the relationship in question.

Noteworthy Findings

Multidirectional Influences.

Based on emergent themes resulting from the qualitative analysis, participants described a multitude of gains that they associated with their participation in rugby. Further, the associated gains and experiences from playing rugby seem to potentially impact the participants' perceptions of self and consequently, the decision to fight or not. It appears there could be an interaction whereby the *internal* risk and protective factors, and learned messages, influence perceptions of self and the likelihood of engaging in fights. That is why the arrows on the thematic map (Appendix J) from "Self" point in both directions. Both the pre-existing internal schemas influence perceptions of self, and engagement (or lack of engagement) in physical aggression also influences perceptions of self, which can consequently re-shape one's existing perception of self. Although it cannot be claimed that all of the associated gains from playing rugby directly protect against the likelihood of off-field aggression, I theorize based on the qualitative results that they could also indirectly impact the likelihood of off-field aggression through the impact and influence on other aspects of one's self and one's experiences. In particular, by developing a close relationship with one's coach who is said to be a positive role model and instill morals in his players, it could be that these messages of morality in turn influence the likelihood of getting into physical fights. Pepe described the impact of his coach's teachings, "I lucked out and had a coach that really took us all in, and taught us morals and all that stuff." Cookie also described how his coach taught players "all the extra things…he was just that one person, like he'll always be on my resume as the one person to call…he really kind of shaped my

life…like bringing us up as men." Because participants in this study described their coach as someone they respect deeply (or consider as a father figure), it is likely they want to make their coach proud and avoid disappointment. Further, because none of the participants reported that their coach encouraged fighting, these participants may have wished to abstain from fighting as a way to honor the respect they have for their coaches. "Don't do it," "He (coach) wouldn't allow fighting or any disrespect," "Leave everything on the field" were some of the statements participants used to describe their coaches' perspectives on off-field aggression.

My posited theory that the likelihood of engaging in off-field aggression for rugby players may be a result of multiple influences, is similar to the theoretical underpinnings of the biopsychosocial model that states biological, psychological, and social factors all influence human behavior and functioning (Santrock, 2015). For this study, I theorize that the relationship between aggression and rugby participation is likely influenced by biological, psychological and developmental factors of the individual over time, and by his social surroundings and context (e.g., coach, teammates, family influences).

Slogans.

In addition to the diversity of gains that were described by the rugby players, there also appeared to be a shared language among the participants. In particular, there seemed to be common slogans, or shared sayings that were used to describe the sport of rugby. Every participant referred to rugby as a "gentleman's game" and referenced the "brotherhood" that is associated with the culture of rugby. The simple description of rugby as a "gentleman's game" does not infer or connote violence and

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off-field aggression. I think this description is an important consideration when examining the relationship between rugby and off-field aggression, and there may be many possible explanations for it.

One such explanation is that perhaps the "barbaric" nature of this sport that is often portrayed is simply a misnomer for the "elegant" and "gentlemanly" culture that is described by the participants who actually participate in it. Or perhaps the "gentlemanly" verbiage that is used by participants is passed down from the aristocratic origins and culture of rugby that stems back to the United Kingdom in the early 1800's (Collins, 2006; McCann, 2006). Or perhaps the duality of a "gentleman's game" that is "barbaric" in nature can be better explained by examining early philosophical theory and mythology.

In literature, the literary stock character termed the "noble savage" was coined to describe the concept of an outsider with the potential for good but who gets corrupted by civilization, and symbolizes the primal philosophical theory that human's are innately good (Ellingson, 2001; Harrison, 2003). In the context of rugby as a "gentleman's game," this paradox could be thought of in terms of a group of men who are innately good, but are being called upon to participate in a "barbaric sport." As a result, aspects of their "innate goodness" will always be present somehow and may be reflected in different traditions and elements of the sport. Due to the multitude of explanations that may shed light on the duality of the sport of rugby, future studies may wish to explore the historical and cultural influences of rugby on the likelihood for off-field aggression.

The "Rugby Family."

Another noteworthy observation that emerged from the data is the language used to describe the sport of rugby, and its similarity to that of a family system. Through reflective journaling, one of the observations that stood out was participants' use of familial language (e.g., "brotherhood," "dad," "family"). The rugby team itself was often referenced as a "family," wherein the teammates were often referred to as "brothers," and the coach was described as "like a dad," "a second dad," "a replacement dad." The coach figure was described by many to have a positive influence on the rugby team of "brothers" by teaching them valuable life lessons and morals, encouraging them not to get in fights, and being a supportive figure when there was not a father figure in the participants' home. Further research may attempt to explore the question of whether a rugby coach can offer a "substitute dad" role to teach empathy, emotion regulation, and a socially appropriate outlet for aggression for young men who may be more inclined to act out aggressively.

In a study by Koestner, Franz, & Weinberger (1990), the authors found that the single most important factor linked to the development of empathy in boys was paternal involvement. In the same vein, one might wonder whether the role of an athletic coach could also make this same impact in young men's lives if the coach is perceived as a "substitute dad?" Research has also revealed that the presence of a father figure serves as a protective factor against the likelihood of engaging in interpersonal violence for adolescent and young adult males (Clowes, Lazarus, & Ratele, 2010; Crosnoe, Erickson, & Dornbusch, 2002; Rohner & Veneziano, 2001). In addition, literature on gang culture has suggested that the presence of a father figure is

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a protective factor against youth gang membership (Howell & Egley, 2005; Klein, & Maxson, 2010). Future studies might choose to examine the influence of coach figures on young male athletes in the absence of father figures.

Although some research retells athletes' accounts of their coach serving as a "father figure" in their lives (Jowett & Cockerill, 2003; Poczwardowski, Barott, & Jowett 2006), the benefit of the interpersonal processes between the coach-athlete dyad likely extends beyond just that. In the past decade, research on this topic have yielded results suggesting that coaches can increase players' motivation, team cohesion, and facilitate positive youth development (Holt & Neely, 2011; Olympiou, Jowett, & Duda, 2008; Turman, 2003; Vella, Oades, & Crowe, 2011). Further, participation in sport has been associated with positive developmental gains, including higher levels of self-esteem, emotion regulation, problem-solving, goal attainment, social skills, school involvement and academic success (Eccles, Barber, Stone & Hunt, 2003; Holt & Neely, 2011; Marsh & Kleitman, 2003; Richman & Shaffer, 2000). It is likely that some of these developmental gains are due in part to the coach-athlete relationship, and continued efforts should be made to explore the influence of that relationship, especially as it pertains to young men and implicit messages about fighting that might potentially be taught by their coaches.

By applying the family systems lens that was described above to the emergent themes from these data, it can be interesting to think about the dichotomy of "brotherhood" that was described by some of the participants: on one hand the "brothers" are described as supportive and serve as role models, but on the other hand, a "team mentality" can emerge from the bond of brotherhood that can yield a darker,

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and more dangerous effect. This idea of "team mentality" can be compared to the phenomenon of "groupthink," a phenomenon that has garnered significant research attention in the field of social psychology. Groupthink is the act of thinking and/or making decisions in a group, without regard to individual responsibility or values (Esser, 1998; Janis, 1982; Russell, Hawthorne, & Buchak, 2015). In the present study, the term "team mentality" was used to describe how rugby players might engage in off-field aggression if they see, or are encouraged, by other teammates who are fighting. Future research may wish to explore this relationship between team sports versus individual sports on the likelihood of engaging in off-field aggression based on the principle of groupthink.

Implications

It cannot be concluded from this study that participation in rugby will increase or protect against the likelihood of off-field aggression. However, according to participants' reports of their experience with rugby, there will likely be both positive and negative outcomes associated with their participation. Participants from this study noted more positive than negative outcomes, however, it is likely that every individual's experience with their involvement in rugby will differ, and a number of factors will impact one's experience (i.e., the coach, relationship with teammates, familial influences and upbringing, alcohol use, etc.). Therefore, researching and selecting a positive coach and team, reflecting on what you (or your child) are looking for in a sport, and continuing to examine positive and negative outcomes associated with participation in the sport, will likely increase one's satisfaction and developmental benefits associated with their involvement in the chosen sport.

Results from this study seem to be consistent with other studies, which suggest that there are aspects of sport involvement that likely promote healthy behaviors and positive development, and aspects that might have a negative, unhealthy impact. Although a number of positive developmental correlates have been associated with sport participation, authors of various studies have posited different negative outcomes associated with playing sports, including: misuse of alcohol (O'Brien, Blackie, & Hunter, 2005), seeing coaches modeling bad behavior (Hansen, Larson, & Dworkin, 2003), engaging in delinquent behavior (Begg, Langley, Moffitt, & Marshall, 1996), feelings of rivalry among peers (Brustad, Babkes, & Smith, 2001), and increased fear and occurrence of injury (DuRant, Pendergast, Seymore, Gaillard, & Donner, 2011). Thus, as a parent making the decision of whether you want to enroll your child or teenager in sports, it would likely be important to consider the relationship between your child/teen and their coach, and what sorts of messages the coach is relaying to your child/teen. Also, it may be important to check with your child/teen regularly to see if they are enjoying their sport and what sorts of things they are learning through their participation (good, bad, or otherwise).

Regarding rugby specifically, I think the same questions listed above should be considered and monitored for all participants. In addition, I think parents may want to weigh the positive and negative aspects of participation in rugby that their child or teen describes, as it will likely differ for each individual. Although the results from this study are preliminary, it seems that participation in rugby will likely not make an individual more or less aggressive off field, but it's possible that they may experience the benefit of having a healthy outlet to displace excess or unwanted energy.

Consistent with past sport psychology research, the intersection of alcohol, masculinity, and aggression seems to be a domain worth studying further. Alcohol can likely serve as a catalyst for aggressive behavior in college-aged athletes, so assessing alcohol use would likely be beneficial if working with a student-athlete in a mental health context. Also, incorporating safe drinking education to college-aged athletic teams, especially rugby, should be a consideration for coaches and athletic administrators. Also, as a clinician or parent, one might wish to inquire about the impact of how sport participation may be helping or hindering an individual learn how to regulate emotions, among other developmental skills. Again, due to the lack of clarity in the literature on the topic of aggression and athletics, it would behoove clinicians, parents, individuals, and the public, to remain open and inquisitive about how sport participation may be impacting an individual.

More research, using multiple methods of inquiry, needs to be conducted to better understand what the relationship is between participation in athletics and aggression. However, in the meantime, individualized assessments should be carried out to determine if one's participation in their sport is more beneficial than harmful. In addition, one should avoid making assumptions about what role athletics is playing in someone's life; as was revealed in the present study, there may be many individual benefits or hindrances that the individual perceives.

Limitations

The mixed methods research design and methods I selected have associated strengths and weaknesses. The major weakness of this study is the small sample size. Because I was recruiting from only one rugby team with 20 players on the team, the

possibility of participants was automatically limited. For the qualitative data, I was only able to interview participants who consented and were willing to participate in the interview portion of the study. For the quantitative data, my sample size was further limited to the number of participants who consistently reported the same self-selected identification code, which ended up being only seven participants. The small sample size originating from just one rugby team also makes it difficult to generalize the results of this study to other rugby players and rugby teams. In order to increase generalizability, statistical power, and the ability to detect a true relationship between off-field aggression and rugby, a larger sample size including multiple teams in different regions will be needed for future research and to expand upon the preliminary results found in this pilot study.

Another limitation of the study is the potential for unmeasured confounding variables that might be responsible for the observed results and suggest an alternative hypothesis for the relationships found; this is a threat to internal validity. Another threat to internal validity is that there is no random sampling of teams or players, because I limited the study to one rugby team's athletes. Another limitation is that with all self-report data, there is likely to be a social desirability effect and could confound the quantitative measurements of interest.

My out-group status may have been a limitation for the qualitative portion of this study due to the sensitivity of the questions asked in the interviews. It is possible participants may not have felt comfortable discussing their engagement in off-field aggression to someone who does not participate in rugby. In addition, as a female interviewer, participants may have preconceived notions about what is appropriate or

desirable to share with women about physical aggression. On the other hand, my out-group status may have been beneficial in that participants likely did not assume I understood rugby-specific terminology, and consequently were more detailed in their descriptions.

I also acknowledge that a necessary consideration in qualitative data from a grounded theory approach is the influence of my own biases. Although it is challenging to ever be fully aware of my own biases and how they may have influenced the interview processes, I attempted to control for such bias by engaging in reflective journaling and open dialogues with my co-researcher.

Reflection of Research Process

Although I set out to conduct a convergent mixed methods design with rich qualitative and quantitative data, my study slowly shifted focus and took on a new research design that I had not originally intended it to. In retrospect, the study that I completed is more in keeping with an exploratory mixed methods design. Exploratory mixed methods designs are characterized by an emphasis on the qualitative strand of data. In addition, the qualitative strand is conducted first in an exploratory design and the results from the qualitative data guide the quantitative research questions and data collection (Creswell & Clark, 2011). The purpose of an exploratory design is for exploration of a phenomenon, which eventually became the emphasis of my dissertation study.

Unlike a characteristic exploratory design, I collected my quantitative data first because I had access to the rugby team and wanted to sample the players on self-report measures across their season. I also thought that if I established some rapport with the

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team by being there in person to hand out surveys, I would be more successful in my attempts to recruit interview participants. I also wanted to analyze the two data strands independently in order to corroborate and explore my research questions from two different perspectives and draw upon the strengths of each method of inquiry.

What I did not anticipate was that the participants of the rugby team would not consistently write down their same self-selected identification code at each survey. Despite including both oral and written instructions, the majority of the participants wrote down different identification codes at each of the three times I surveyed them. As a result, I was unable to compute the repeated measures ANOVA design with the amount of participants I was anticipating (20). This of course weakened the power of my statistical analyses, and made it difficult to generate any significant findings from my quantitative strand of data.

I collected my qualitative data after the conclusion of the rugby season and quantitative data collection. My recruitment efforts for the qualitative data were much more difficult than I anticipated. Despite many players verbally stating their interest in interviewing, I ended up having just five rugby players consent to interview. Although this was fewer than I was hoping for, these five participants gave me rich qualitative data that ended up shifting the focus of my dissertation project. The qualitative data and themes that emerged were rich in description and allowed me to theorize about the relationship between participation in rugby and off-field aggression, as well as other ways rugby may have impacted the young men I interviewed.

With the shift in emphasis to my qualitative data, I ran additional post-hoc analyses on the quantitative data to further explore and corroborate themes that

emerged from the qualitative data. I became more interested in the words of the participants and the prominent themes that revealed relationships beyond what I set out to explore from the qualitative data. Although my dissertation project shifted focus and took on a new research design through this educational process, I was able to gain a better understanding about the relationship between rugby and off-field aggression. I also gained a better understanding about the complexity of mixed methods research, and how to problem-solve challenges and changes in the process of conducting research.

Summary

This research represents the first effort to examine the relationship between participation in rugby and off-field aggression using a mixed methods research paradigm that incorporates a qualitative component to the method of inquiry. Although this study is considered a pilot study and the results are preliminary, results suggest that there is likely a nuanced and complex relationship between participation in rugby and off-field aggression. Despite having no definitive and causal results, I attempted to explore a more holistic understanding of the relationship between participation in rugby and off-field aggression from the perspective of the participating athletes themselves.

By giving the rugby players a voice, the results from this study indicate that there are likely factors before playing rugby, while playing rugby, and outside of rugby that are influencing the likelihood of these players engaging in off-field aggression. Although there appeared to be no change in self-reported scores of aggression over the course of a season, some players acknowledged that there may be aspects about

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participating in rugby that might contribute to off-field aggression. However, every player reported gains that were also associated with participation in rugby. Therefore, although one cannot claim that playing rugby will definitively increase or decrease the likelihood of fighting, it is important to acknowledge the multitude of benefits that individual athlete's perceive to be a result of playing their sport, and how these may contribute to personal growth.

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Appendix

A. Table of Analyses

B. Demographic Questionnaire

C. Interview Approach

D. Semi-Structured Interview Protocol

E. List of Line-by-Line Codes

F. Initial List of Focused Codes Sent to External Auditor

G. List of Final Focused Codes

H. Final List of Theoretical Codes

I. Comprehensive List of Final Theoretical Codes

J. Theoretical Diagram

Appendix A.

Table 1
Variables and Planned Analyses

Research Question	Independent Variable	Dependent Variable	Proposed Analysis
1. Is there a relationship between participation in rugby and engagement in off-field aggression?	Participation in rugby	Aggression Questionnaire scores and Proactive-Reactive Aggression Questionnaire scores	Repeated Measures ANOVA, Grounded Theory
2. What perceptions do rugby players have about whether they experience a cathartic effect resulting from their participation in rugby?			Grounded Theory
3. What messages do rugby players perceive about off-field aggression?			Grounded Theory
4. What factors do rugby players perceive may contribute to off-field aggression?			Grounded Theory
5. What factors do rugby players perceive may protect against off-field aggression?			Grounded Theory

Appendix B. Demographic Questions

1.) What is your age:
     _____ .

2.) What is your ethnic background?
    a. American Indian/Alaskan Native
    b. Asian/Asian American
    c. Native Hawaiian or Other pacific Islander
    d. Hispanic/Latino/a/Chicano/a
    e. Black/African American
    f. White/European American
    g. Biracial/Mixed Ethnic Identity
    h. Other (please specify: _____).

3.) What is your highest level of education?
    a. Some college
    b. AA degree
    c. Enrolled in a 4 year university
    d. Bachelors Degree

Appendix C. Interview Approach

Intensive inductive interviewing was employed; I used a semi-structured protocol and asked relevant follow up questions with the goal of in-depth, rich information about the perceived relationship between participation in a collision sport and engagement in off-field physical aggression. Detail-oriented probes (e.g., "Does anything come to mind that might be different?"), elaboration probes (e.g., "What would be an example of that?") and clarification probes (e.g., "What do you mean by that?") were utilized when I determined that additional information would be useful to understand the informant's response in greater detail.

In terms of sequencing questions for the protocol, the interview was divided into two parts. The questions in the first part of the interview allowed me to explore the informants' experience of playing rugby more generally. The second part of the interview explored the informants' perceptions of how rugby may influence off-field aggression. The interview would begin with what Spradley (1979) calls a "grand tour" question, which is a broad opening question inviting the participant to describe their involvement in rugby before more specified and directed questions were asked. All of the initial questions were primarily non-controversial in an attempt to establish rapport and put the informant at ease, which has shown to be a good strategy in conducting interviews (Murphy, 1980). For example, I first asked the interviewee, "Please tell me a little bit about your involvement with your sport over your life."

For this retrospective semi-structured interview, questions were primarily open-ended, which is a distinguishing feature of qualitative interviewing because it provides a framework for informants to express their own understanding of a topic or

idea in their own word (Patton, 2002). There were a few instances in which close-ended questions were utilized in order to gain specific and concrete information. For example, it was important to ask the informant, "Do you feel like you have pent up aggression that needs to be acted upon?" in order to help answer the research question of whether participation in a collision sport serves as an outlet for pent up aggression. The interview was primarily retrospective because many of the questions required the informants to reflect on past experiences and behaviors.

Some of the open-ended questions were "opinion and values questions" in order to understand interpretive processes and answer what someone thinks about an experience or issue by asking about their opinions, judgments and values (Patton, 2002). For example, informants were asked, "When do you think it is acceptable to engage in off-field physical aggression, if at all?" Other questions were "feeling questions," in an attempt to tap into the emotional processes tied to the experience of engaging in physical aggression and also to diversify the understanding of the topic and avoid only asking cognitive style "thinking" questions (Patton, 2002). For example, the following feeling question was asked: "What do you feel (emotionally) right after you make physical contact with another person?" This question will also help address the research question of the possible existence of a displacement cathartic effect by participation in a collision sport.

Finally, the interview concluded with the closing questions: "Do you have any additional comments you would like to add related to rugby and aggression?" and "How has this experience been for you?" in order to capitalize on the emergent nature

of interviewing and to narrow any perceived power differential by giving the informant

the final word.

Appendix D. Semi-Structured Interview

Introduction: This interview is divided into two parts; the first explores your experiences playing a collision sport like rugby.

- Tell me a little bit about your involvement with rugby over your life.
- What position do you typically play?
- How would you describe the type of player you are on the pitch?
- What was it about rugby itself that made you want to play the sport?
- What are the physical sensations you feel in your body right after you make physical contact with another person on the field?
- What do you feel emotionally right after you make physical contact with another person on the field?
- In what ways do you think playing rugby has impacted you?
  - *Probe:* Socially? Physically? Emotionally? Academically?
- What do you think would have been different (in your life outside of rugby) if you didn't play/had never played rugby?
- Has playing rugby taught you anything outside the area of the sport itself?
  - If so, what?

The second part of this interview will explore your perceptions of how playing a collision sport like rugby has influenced how you interact with others off the pitch, specifically with regards to physical aggression.

- When do you think it is acceptable to engage in physical fights, if at all?
  - *Probe* (if they think it is acceptable): Can you think of any instances where you found it acceptable for you to engage in physical fights? What about intimidation?
  - Who or what in your life has influenced this determination?
- Tell me about what factors might *increase* the likelihood of off-field aggression for rugby players.
- Tell me about what factors you think might *decrease* (or protect against) the likelihood of off-field aggression for rugby players.
- What messages have you gotten from the culture of rugby about off-field aggression?
  - *Probe:* From coaches? From teammates? From your parents?
- Do you feel like you have pent up aggression that needs to be acted upon?
  - If so, do you think playing rugby has given you an outlet to displace pent up aggression? (If so, how?)
- Do you have any additional comments you would like to add?
- How has this interview experience been for you?

Appendix E. List of Line-by-Line Codes

Side effects
- Making friends (Cookie Monster, Pepe Bonfilio, Arthur Vandalay)
    - Emotional connections with people (CM)
    - "Brotherhood" (CM, PB, Flaco)
    - "Socially adaptable" (AV)
- Traveling (CM, PB)
- Injuries (CM)
- Academics
    - Scholarships/financial assistance for school (CM)
    - College (PB, F, AV, Tino Francisco)
    - "Kept me in school" (F)
    - Encourages studying (AV)
    - Grades increase (TF)
    - Takes away from studying (AV)
- "Life-changing"/"Huge effect on life" (CM, PB, TF)
- Life skills
    - Timeliness (CM, AV)
    - Goal-setting (CM)
    - Growing up (Learning how to be a "man") (PB)
    - Respect (PB)
    - "Character building" (PB)
    - "Responsibility" (PB)
    - "Learning to control aggression" (F)
    - Leadership (F)
    - "Socially adaptable" (AV)
    - "Cooperate" (AV)
- Stress reliever/outlet (PB, F, TF)
- Aggression reliever (F)
- Coach as father figure (PB)
- Community service (PB)
- Staying out of trouble (F, TF)
- "Hardened" (AV)
- "Resolve internal issues" (AV)
- Examined personal anger issues (TF)
- Introspection/focus inwards on self (TF)
- "Helps me get away" (TF)
- Energy expenditure (no energy to be mad) (AV, TF)
- Enhanced self-esteem (TF)
- Fitness
    - Physically stronger (F)
    - Healthier (AV)
    - Diet (AV)

Sensations post physical contact
- Adrenaline (CM, F)
- "Blacking out" (CM, AV)
- Reacting (CM)
- "Stress reliever" (PB)
- "Feel bad" (PB)
- "Feel great"/"Excitement" (PB, F, AV)
- "A rush" (PB)
- Pride (PB, F)
- Physical pain (AV, TF)
- Focus on falling to avoid getting hurt (TF)
- "Get back to my job" (TF)

Messages (about fighting)
- Culture of rugby
  - Against
    - "brotherhood game" (CM)
    - "Gentleman's sport" (CM, F)
  - For
    - Welcomed because of the history of rugby like war (TF)
- Family
  - Against
    - Dad says "better not be fighting over something stupid" (CM)
    - Mom (PB)
    - Don't attract unwanted attention as African American (F)
    - Mom – "Use words" (AV)
    - Grandpa – "Respect" (TF)
  - Neutral
    - "If you fight, you better win" (TF)
- Coach
  - Against
    - "Leave everything on field" (PB)
    - "Don't do it" (AV)
    - "Wouldn't allow fighting or any disrespect" (TF)
  - Neutral
    - "Don't wear team logo if you're going to fight" (F)
- Teammates
  - Against (PB)
  - For (PB)
    - "Team bonding" (AV)
    - History/culture of rugby like war (TF)
    - "May the best man win" (TF)
  - Neutral
    - I got your back, you got mine (F)

Risk Factors
- Alcohol (CM, F, AV, TF)

- Rage/Anger (CM, PB)
- Testosterone (PB)
- Group mentality (CM)
  - "Team bonding" (AV)
  - "Chain reaction" (TF)
- Women (AV)
- Defending someone (CM, PB, F)
  - Loyalty/helping friend (CM)
  - Girlfriend being violated (PB)
- Personality
  - "Being an aggressive person" (CM)
  - "Anger gene" (PB)
  - "Emotions", "getting pissed off" (F)
- Provoking/Instigating (AV, F)
  - "Dick teammate" (F)
  - Offensive comments (F)
  - Opposing team (F)
  - Cheap shots (TF)
  - "Shit talking" (TF)
- Off-season (PB)
  - Pent up aggression (PB)
- Problems at home (PB, AV)
- Disrespect (AV, TF)
- Out on the town (TF)

Protective Factors
- Rugby
  - "Gentleman's sport" (PB, CM, F)
  - In-season (PB)
  - Exercising (PB)
  - "Outlet" (PB, CM, F)
  - Teammates (PB, CM)
    - Chilling out your friends (CM)
    - Looking out for each other (CM)
    - Protection "like a family" (CM)
  - Coach
    - "Taught to leave everything on the field" (PB)
- Alcohol (CM)
- Culture (CM)
- Personalities (CM)
  - Passivity (AV)
- Weed (CM)
- Communication (AV)
- Respect (AV, TF)
- Happy home situation (AV)

Other important things
- Impact of coach (CM, PB, F, TF)
  - Substitute father (CM, PB)
- Started rugby because of childhood anger issues (PB, TF)
- Football vs. rugby (PB, F, AV, TF)
- Daddy issues (PB, TF)
- Community of rugby/Rugby as "brotherhood", "family" (CM, PB, F, TF)

Appendix F. Initial List of Focused Codes Sent to External Auditor

Side Effects (of playing rugby)
This code includes participants' description of the various side effects (or outcomes) that have resulted from their participation in rugby. Subcodes were created for the following categories of side effects: social, emotional, physical, life lessons, academics.

"I would say rugby has completely changed my life. I would definitely not be the same person I am today without it." – Cookie Monster

"Rugby is definitely a part of my life and changed my life, and I wouldn't be here without it." –CM

"I wouldn't have gone as far without rugby, or at least, not as smoothly. It has helped me with a lot of things" – Tino Francisco

"It's helped me focus on myself, more than football or school or even just being around my family would have." -TF

"I like who I am, and who I am becoming because of rugby" –Arthur Vandalay

Social
"I don't know, it expands me socially because regardless of whether I get along with someone or not, I kind of have to communicate with them because we are part of a team. So, it has made me more socially adaptable." – AV

"After playing for a little bit, just like the concept of playing as a unit was really appealing to me. And also, no one really heard of it, it wasn't like everyone was doing it, so I kind of felt special" –AV

"I kind of used rugby to transfer to X University this year, because I'm not a 3.0 student at the moment. So, I wouldn't have as much determination to really apply myself, and I wouldn't be as physically active, or as socially active either. Like through rugby, I have met probably…like I would say at least half of the team I generally would say I'm friends with, and then the other half, I just probably haven't met yet. So, I'd meet a variety of people…and it actually motivates me to work out when I'm not playing rugby just so I can be more fit *to* play rugby." - AV

"So far…I like who I am, and who I am becoming because of rugby…pretty much like the whole scheme of things from…my physique to how interacting with other teammates is affecting my personality, which is pretty nice." – AV

"And socially…I think I'm able to connect to more people because of it (rugby) due to the experiences with teammates." – AV

"They (teammates) are like my best friends now, and even 2 years into college, every summer we go back we go on camping trips together and stuff, they are still my best friends. The experiences I have had with them I can't say I've had with anybody else." – CM

"The people I have met and the places I have gone with rugby…there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington DC, Colorado, Massachusetts. All because of rugby. And I've made friends and relationships in all of those different places. And rugby is the type of sport where you can go and stay in contact with those people…you just be like, "hey, I'm in England, can you pick me up?" And that's the type of thing that would be completely fine to do. It's a very unique sport in that way; the relationships you make are going to be there if you talk to them every day or if you've met them one time.." – CM

"So at least 6 months out of the last 7 years of my life I've been playing rugby, so it definitely had a huge impact on…just the amount of time I put into it, the amount of relationships and emotional connections I've had with people, and stuff like that." – CM

"Well I just say that rugby is more of a mold for that type of brotherhood relationship, instead of different sports like track and stuff…I don't know, it's more of a brotherhood and camaraderie-type game." –CM

"When you're playing rugby, you develop a sense of brotherhood with these guys…they're all your brothers, and if you let them down, it's a big deal once you get that close to people." – Pepe Bonfilio

"I like the camaraderie, all the brotherhood and whatnot. That's what kept me playing." –Flaco

Emotional
"I was a very angry kid. It took me a lot to control my anger and rugby very much taught me how to control my aggression." – F

"But what kept me playing was the physical-ness, you know, it was a good release of aggression." –F

"We had practice and games on the weekend and you got to release all that built up aggression, you know?" –F

"I think that I have a very aggressive personality and I always have, and it has taken me a lot throughout my life to control my anger. And I can control it now, but rugby just helps me…I don't know…yeah, I guess I do have a lot of pent up anger. Rugby is my outlet. I don't enjoy the summertime because there is a lot less rugby in the summertime." -F

"My pre-calculus teacher actually sat me down and one time was asking me how I was doing because I was stressing out and uh…I started focusing better in class and she asked me what changed and I told her that rugby just started up and we had our first week of practice, and she started laughing and she was like, that's crazy how it helps you out that much in just one week. So, yeah, it helps me just get away, because I need that time to get away." – TF

"So…rugby physically wears me down, but it also mentally does…because there's a lot more thinking than I knew there was." –TF

"Throughout all high school, and even now, whenever I just get stressed, me going to practice, just going through drills, helps me … let me get rid of some of that stress." –TF

"When I am in a game situation, and I do something physically that makes a difference, or puts our team in a better position, I start feeling a lot less stressed…I start feeling better about myself especially…like, when I contribute to the team, mainly." -TF

"Not necessarily hardened, but in a way, it has kind of…weeds away little things…Like, I don't take things personally. So you know, rugby kind of…I can't really think of a good way to describe it, but what it did was…it prioritized my emotions I guess, and it really impacted what I should take seriously or not." – AV

"Well…for instance, like, I don't…like certain things don't hurt me, or certain things you just shrug off. Like, when people…like, in rugby people give each other shit all the time, so when we're messing around with each other…it really doesn't impact…I don't take anything personal." – AV

"On the field, you kind of escape reality for 80-90 minutes…and legally, you're allowed to do whatever you need to do to win. And so, through that influence, you get to escape whatever problems you have or…that's when you can resolve a lot of internal issues." – AV

"…I've been doing it (rugby) for 8 years, and it's just my stress-reliever…how I let everything out. So I save it all for rugby, and when I don't have, it kind of builds up even more." –PB on having pent up aggression

"it's like that one chance a week to let out everything that's been bothering you, all that anger that's built up…all the stress and everything…and just be out there on the green grass with your best friends…and going to war against other people and then seeing who comes out on top." –PB

"And with rugby, it really doesn't matter sometimes who comes out on top, because at the end of the day everyone's friends and everyone's talking about the game, and it's just…you let everything out and you just feel like…I don't know, I guess some people get it from yoga, after yoga you feel all relaxed…you're just a teddy bear…you just let everything out that you had on the field. " –PB

"So during the season, you have practice and everything, and you're exercising, and you're letting just a bunch of anger and emotion out, and once every Saturday or Friday, you have 80 minutes, of just all-out war, where you can get all this anger, aggression, and stress, and testosterone out, and after, for the rest of the week, maybe 2 weeks, you're just like this big teddy bear." - PB

Physical
"I would say I've had a lot more injuries than if I would have not played rugby." – CM

"I used to be fat and now I'm pretty muscular. I haven't sustained a lot of injuries in rugby. I've actually been injured more in football practice than I've ever been injured in rugby actually. I don't know, I feel like I'm stronger playing rugby and can take a lot of… pain tolerance now I guess." -F

"It (rugby) has made me far more physically active and healthy." –AV

"I kind of used rugby to transfer to UCSB this year, because I'm not a 3.0 student at the moment. So, I wouldn't have as much determination to really apply myself, and I wouldn't be as physically active, or as socially active either. Like through rugby, I have met probably…like I would say at least half of the team I generally would say I'm friends with, and then the other half, I just probably haven't met yet. So, I'd meet a variety of people…and it actually motivates me to work out when I'm not playing rugby just so I can be more fit *to* play rugby." – AV

"So far…I like who I am, and who I am becoming because of rugby…pretty much like the whole scheme of things from…my physique to how interacting with other teammates is affecting my personality, which is pretty nice." – AV

"It (rugby) taught me to physically take care of my body, and preserve it…and it effects my diet, as well." – AV

"I look at it from a physical standpoint, that after game or training, or running, or anything like that, I don't have energy to be mad at little things. Like if my girlfriend doesn't do the dishes or the house is dirty, I don't have energy to argue about it, so it just kind of slides." –AV

"So…rugby physically wears me down…" - TF

Life Lessons
"It gave me…such growing up, it gave me a place I had to be, it taught me responsibility, like I had to be here…like it wasn't just one person counting on me, I had a bunch of people counting on me…and I didn't want to let my friends down." – PB

"It makes me prioritize my time because rugby is a certain schedule and studying isn't, necessarily. You know, like, I can study whenever but I can't go to practice whenever. So….it really makes me prioritize what times I should use for studying and what times I have for leisure. And…I like it because, if I didn't have rugby, I would use my free time for not taking my studies seriously…So by taking away my free time, it makes me prioritize my regular time." – AV

"I think it's probably the most unique experience I have ever had. Because at the same time you are trying to better yourself physically, it teaches you like you have to be cooperative with other people." – AV

"Like always getting to practice on time, like if you're at practice 15 minutes before practice you're on time, and if you show up on time, you're late. And if you're late, you better be sprinting to practice. But we didn't just get away with it, we were just held to such a strict standard, like it just kind of molded my life, like the way I operate." – CM

"I really think that rugby is one of the main reasons um…for me transitioning from a boy into a man. Because my high school coach was big on respect and building character, and with me, I didn't have a father figure for a long time, so my coach kind of became that father figure and…he did a great job kind of introducing us to be like…we're the same people off the field and on the field…so it effects more than just yourself if you make bad decisions…because you represent a lot more than just yourself…you represent your parents and

everything. And I feel like rugby really grew me up…I wouldn't be the man I am today without rugby." -PB

"The people I have met and the places I have gone with rugby…there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington, DC, Colorado, Massachusetts. All because of rugby" – CM

"I played all through high school and got the chance to travel to England and Wales. I played in Italy my freshman year and I've been to Canada 4 times for rugby, and a few years ago I went to Argentina to play. So I've been all over the world and it's given me a lot of opportunities I don't think I would have had without it. So it's had a huge effect on my life." – PB

"And for me, on my high school team, it wasn't just about rugby, we had to do a lot outside of the field, like a lot of community service, help around the town and stuff, just let people know we're good guys out of the kindness of our hearts and stuff. That was a big thing for recruits…it was a big thing for coach, and a big thing for us too." -PB

"You kind of got that I used to be an angry kid. You know, I've had some kind of trouble with my dad leaving and stuff. And so, you know…anybody…any boy who's had like their parent's split up and stuff at a young age and…had to go through poverty and stuff like that…had some built up aggression. And I think having an outlet to let it all out…you know, it's good…in a safe and *controlled* manner that teaches you morals and character and respect…I couldn't think of a better way to do it. You know, because you could let out your aggression in a bunch of different ways…like, you could enter the MMA and fight people…and UFC stuff. And I actually did jiu jitsu for awhile. You could do football, lacrosse, water polo, lift weights…but, you know…it's the community of rugby that teaches you these things. I lucked out and had a coach that really took us all in, and taught us morals and all that stuff, and I was really lucky with that. " –PB

"Honestly, when I was in middle school, I wasn't…I was kind of going on along a bad road, I guess a lot of people would say. And I don't know, rugby just kept me in line, rugby and coaches, and I don't know, my teammates, just kept me a straight and arrow, took me to college (laughs). You know, kept me out of trouble." –F

"Well, in middle school, if I didn't have the after school outlet (of rugby) to go to, it would have been all the kids in…the gang members I would have been hanging out with, that I was hanging out with, but I started hanging out with less and less because of rugby." -F

"It taught me a lot more than just controlling my anger. Like how to get along with other people, how to use a team, an entire team to achieve one goal. You

know what I'm saying? Just a lot teamwork. A lot of leadership qualities I have taken from rugby." –F

"With rugby, when they started to take my captain (title) away…because they didn't understand why I was just always mad and it made me focus on myself to take it as…if my coaches, who see me twice a week see how angry I am for no reason…it made me think of how my family who I spent time with, and how I acted around them, and what they thought. So it made me focus on myself more than I ever did, to where I was….it wasn't about losing my captain, it was more of…I want to be better for the future." -TF

Academics
"Sometimes it (rugby) takes away from studying, sometimes it encourages it" – AV

"Actually, I'm pretty unique in my situation in that creating scholarships for rugby is a very new thing I would saw. Probably in the last 3 or 4 years. So the fact that I was offered that opportunity right out of high school is pretty amazing. With FAFSA and all the scholarships, I was almost on a full ride scholarship, which was very unique and an experience I would have never had the opportunity to experience without rugby." – CM

"I don't think I'd be in college if it weren't for rugby. Rugby is what I love to do…and like…I came to X college because they had a good rugby team…and I wouldn't be here if they didn't have a rugby team." – Pepe Bonfilio

"Honestly, when I was in middle school, I wasn't…I was kind of going on along a bad road, I guess a lot of people would say. And I don't know, rugby just kept me in line, rugby and coaches, and I don't know, my teammates, just kept me a straight and arrow, took me to college (laughs). You know, kept me out of trouble." –F

"Playing rugby is what kept me in school, and you know…like my coaches, my teacher in middle school, they helped tremendously." –F

"I definitely would not have gone to college if it weren't for rugby. I'm only here for rugby…because of rugby." –F

"My coach started talking to me and the other players and telling us about colleges you can play at, and I wasn't even planning on really going to college, my mom of course already told me to go. I just figured I would start working like everyone else and just try to save it up. But once my coach started talking to me about playing college rugby, I got more into it, and I mainly came to X city just for rugby because I was never in top shape at school…I cut classes quite a bit and never really got interested in the subjects, and uh…I just came for rugby

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season, but then I started actually doing my stuff in school and I went from a 1.9 to 3.8 last semester." – TF

"So, all around, rugby has just been a good way to keep me out of trouble outside of school and a way to get me back into my studies especially since I'm not good at studying, and it's just been a good outlet just for me to get away from everything." - TF

Sensations post-physical contact
This code is used to label participants' description of what they experience after they make contact with another individual during a game. Subcodes were created for physical sensations (what the person felt in their body), cognitive sensations (what the person was thinking about), emotional sensations (what the person was feeling following physical contact with an opposing team member).

Physical
"Uh…usually if I was to feel anything, it would be where I hit with my shoulder. And sometimes, my back, depending on what day it is. Sometimes I have good days with my back, and sometimes it locks up. But mainly, the shoulder and cheek that I put next to their leg" – AV

"And so, whenever I like tackle, I kind of try and bring myself down, but if it's either me or them, like if I don't stop them, and they're gonna get away far or score, then I don't really care at that point…I'll dive and try and do anything and I don't really get a sensation out of it, if anything, I just get a bump from hitting the ground." -TF

Cognitive
"Honestly, what I try to focus on when I hit the ground is getting right back up and in my position. I don't really focus on anything, I just break down where we are and where I need to be…I don't focus on like sensation or anything about emotion. When I get up, I just get back to my job." – TF

"If I made a tackle, I just mainly try to keep myself from getting hurt, so if I make contact when I'm tackling, I focus on how I'm falling so I don't get hurt." -TF

"I kind of like black out. I kind of just don't really think about what's happening and my body just takes over. I'm not really analyzing everything I'm doing. It's more of a reaction." -CM

Emotional
"Just like adrenaline. Adrenaline and just like, I don't know, mostly adrenaline, it's mostly adrenaline for me. Adrenaline and excitement that comes with the adrenaline. You get right back up and keep going. Especially when you do it right and everyone in the crowd is just like, 'oooh.'"– F

"It's adrenaline, definitely" - CM

"I like contact and tackling, rucking, all that stuff…be able to hit people physically…it's a stress reliever, it's what I like to do." – PB

"During a tackle, everything kind of just goes…not like blank, but it's the only thing I really think about. And I guess uh, emotionally, I guess more uh…excitement…to try and get up and win the ball." –AV

"Like, you know, if you go up against someone and you throw your body into them and you're the one that ends up on your back, you kind of feel like, "oh, damn, that just happened…", you kind of feel bad, but you get back up and you try to prove yourself again. And then if you're the one throwing yourself into somebody and they're the one that ends up on their back, you feel great because you know that everybody's watching…and it's just really like a test of physical strength, so if you come out on top, you feel good about yourself. It's just that…in that moment it just feels good, it's just like a rush." – PB

Messages (about fighting)
This code is used to identify what messages participants receive about fighting. Subcodes (teammates, coach, family, culture of rugby) were created to label where/who these messages were coming from.

Culture of rugby
"It's a brotherhood game, like it's not out there to kill each other…like it's a game where you beat each other up on the fields, and then afterwards you enjoy each other's company. And some teams understand that culture, and some teams don't, I would say that. Like it describes the type of club, the type of team that you are…Like whether you can separate that on-field and off-field aggression." – CM

"But really, ideally, you really don't ever want to get in a fight, because in rugby, you are taught to be a gentleman. You're playing a barbaric sport, but um…you're taught to be a gentleman the whole time." – PB

"But in rugby, you're taught to leave everything on the field. So like, after games, it's required to have a little social with the other guys, like, in Wales, I had a beer with the guy who broke my nose in a fight, you know? He bought me a beer and we sang songs and everything. I'm the happiest guy after the game, but during the game, it got really rough, you know? It's just one of the beautiful things about rugby…that you just leave everything on the field." –PB

"The culture of rugby always um…it's a good culture and…if you have a coach that really knows it, who's been taught by that…rugby is such a family, that…it's always trying to turn boys into gentleman…that's the great thing about it. It teaches you to have to become a man. And getting into fights on the streets…you

just get into trouble and everything, and…it really teaches you that you have that Friday/Saturday night to let your aggression out, and you need to learn to save it until then, and then, let it out then instead of trying to let it out anywhere else. And so, I've had coaches tell me that and stuff. It teaches you how to be gentleman…and still play in a barbaric way." –PB

"They say rugby is a gentleman's sport, played by beasts. And they expect everybody on the field to be best friends. Like you're playing against each other, it's going to be crazy, but after the game, keep it cool. Everyone's fine…everyone's drinking together…everyone's eating together." –F

"Like fighting is not…it's just kind of like something that is welcomed because of how acceptable it was in war back in the day, and then you can still become friends afterwards." -TF

Family
"I mean, they've (parents) always been against me fighting. But they know I'm an adult now, and they know whatever happens, happens. I mean, they've always been against me fighting I would say. Like they know if I were to get in a fight…it happens. My dad just says, you better not be fighting over something stupid." – CM

"Being African American in America, of course my parents advised me not to attract any unwanted attention to myself on the street. That's just a lesson learned in life. They told me not to get in fights at all." - F

"My mother. She's always been the supportive figure, and we've always been able to talk about anything. And so…through her model, she's passed on to me that pretty much anything you need to deal with, it can be through words instead of actions." –AV

"They would definitely rather me not fight. Um…like they…my mom is terrified of me fighting. She couldn't stand if and when it happens, you know? She's definitely opposed to it, and that's why she ended up putting me in sports…that's why she likes rugby so much." – PB

"Actually, that's probably another reason why I had never gotten into a fight, because of how my grandfather, my uncle, and my mom actually, and her sister, and the rest of the family is…if you get into a fight, you better win. Like if you get your ass kicked and you get home, you're gonna get your ass kicked again by everybody else. If you're gonna get into a fight with anybody, you better be damn sure you're going to win. Or if you're getting jumped by someone, if it's three or more people, then it's fine to just run. That's basically how my family is." -TF

Coach

"He (coach) just harped on us that he would not allow any fighting…any type of disrespect." – TF

"Don't do it. You can't play if you're in jail." – AV

"My coach has a saying that's pretty related to this…my old coach from England. He says, "football is a gentleman's game for hooligans, and rugby is a hooligan's game for gentleman." – AV

"We had a…before every game we had a chant we did, where we'd start yelling "control, rage, control, rage", it was like…a captain in the middle and then everybody else and it starts with a whisper and then gets really loud. He (the coach) was basically telling us that your anger is good, if you use it in the right way, and if you use it in the wrong way, like, you're going to get beat every single time. So he just told us to take our anger and point it in a direction and shoot. And that's just what I do." –F

"All our coach ever tells us, is if we're going to get in a fight, is just to not be wearing the logo of our team. Because that sends a bad signal about our team and what we're about. I mean…fighting *on* the pitch, that's a *whole* different story. It's looked down upon." –F

"He (coach) just harped on us that he would not allow any fighting…any type of disrespect. He was actually kind of the same as…respect-wise, because he would just say if you get punched in the face, just smile back and wait for him on the next play…and that's what he would constantly try to tell us. (Inaudible) Just focus on the bigger picture, or just focus on getting the team a win or making sure you guys play your game…instead of like throwing one punch and you get kicked out the rest of the game and next week's game." -TF

Teammates

"'I got your back, you got mine' type stuff" – F

"I've gotten all different types of messages. There are some (teammates) that are respectful and there are others that just wanna wreak havoc on the world." –PB

"A few of my teammates actually, from high school, and from this team actually, they kind of welcome fighting because how…I guess rugby was used back in the day as war, like instead of going out and using guns and all that…they played games like in New Zealand and Tonga…they used rugby as a way of fighting war to where, basically they were soldiers. And a few of the player still rely on that, and I respect that…where they get into it and they welcome the challenge,

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they'll welcome the fight…just like, the best man wins, and if someone loses, then they show respect towards each other…like if you get into a bar fight with one of the players, after the fight you'd be buying each other's beer and hanging out." -TF

Risk Factors (for off-field aggression)
This codes is used to label the risk factors that participants' identify which may contribute to off-field aggression. Subcodes were created for internal risk factors (aspects within the individual that may be a risk factor) and external risk factors (factors outside of the individual that may contribute to off-field aggression).

Internal
"But with all of the anger and testosterone and everything, people get angry and physical fights will happen. You know, boys and men will be boys." – PB

"I wouldn't say rugby fuels it, but I would say rugby players are aggressive people, so naturally, we are kind of drawn to aggression." – CM

"Because to play rugby, you kind of have to have that anger gene…that thing of aggression towards people, but you still have to be respectful. But some people don't learn that, you know? And it takes them awhile to get up to speed and to learn that…to be calm and stuff. I know it actually took me awhile." - PB

External
"Well definitely alcohol. That's the big one." – CM

"Drinking alcohol (laughs). Definitely drinking. The time that I have been here in college, I have seen, I think every fight that I have seen out here, whether it was between a rugby player or a football player or whatever…it was fueled by alcohol. Every single one." –F

"At the same time, rage and alcohol fuel people to fight about pretty much anything." - CM

"I think any reason that we are fighting at this point is bullshit anyways, there is no real reason we should be fighting…it's over some BS that's probably not a big deal anyways, and we're probably fighting just because there is some alcohol involved and stuff like that. That's why I'm just like, OK, I'll fight for whatever and take care of it later, like I'll probably squash this with people tomorrow and not even worry about it." - CM

"I would say, rugby players, when we're in a squad, when we're all together, we are definitely more aggressive than when we're not" - CM

"I mean, if any of my rugby buddies, if any of my friends got in a fight, I would back them up regardless of whether I should or shouldn't. I guess I'm at a point

in my life where I would help out my buddies regardless of what the reason is…and if I have to deal with consequences, I'll deal with it later." – CM

"I would say it is that camaraderie, that friendship and that brotherhood, that it's more just because of rugby, but it's also there because of rugby…it protects…like you have to have that brotherhood to be able to play rugby, otherwise, when you're teammate runs all around, you're not going to have that willingness to run after him when you're dog tired. It has to be like that second nature that I was talking about, that just unconscious feeling that you know that you have to do. Um…so yeah, it's just like group mentality." (In response to the question, "Who or what has influenced your thoughts about fighting?") - CM

"But in the off-season, you don't have that. So when you've been playing for so long, when you've been playing sports, you're body and emotions get used to letting it all out once a week. And then when you're in the off-season, you don't have that, so it gets all built up, and people will get more aggressive than they usually are." – PB

" let's just say I have a girlfriend and I'm walking with her and a guy like grabs her ass or something…stuff like that really ticks me off…and when stuff like that happens, you know, I don't…I'm probably going to hit him in the face." – PB

"I guess…like problems at home. Like if some kids are really troubled at home, and not really doing so well, you know?" - PB

"…If there's a conflict, like if a person's being persistent with trying to provoke you…I think, at some point there's no way out of it and it's sometimes the only way people learn." –AV
"Alcohol…It just inhibits bad decisions" – AV

"Women. I don't know…if um…it's kind of like a territorial thing almost. Like I don't have a problem myself bringing my girlfriend around, like my rugby teammates at all…I don't judge any one of them. But if certain players are feeling like territorial, so like they…if someone's like a threat to jeopardize their relationship or whatever they're trying to do with a certain girl…that could lead to a physical altercation." – AV

"sometimes, it's actually more of a team bonding experience because there are certain things that can happen. Like one, if you get in a fight with someone not on the rugby team, and, you know, you're there with you're teammates…then that's more of a cohesive, like bonding experience." – AV (Risk factor since it's considered by some to be a "team bonding experience?)

"But when I think it's acceptable to engage in physical fights…is if you're defending somebody, or if…that's pretty much it. If you're defending somebody." –F

"If one person on your team that generally is a dick and if he goes and gets in a fight with somebody else, of course the entire team is going to start fighting." –F

"Imagine a bunch of drunk guys in a bar, two opposite teams, and one guys says something out of pocket…then another guys says something out of pocket…and then every single person is saying something out of pocket. It's just a huge thing." –F

"I don't know if there is anything particular that makes rugby players fight off the field. I just think that they are regular people with emotions and that anybody is going to fight who pissed them off." –F

"If I get disrespected, I'm gonna let them know that's disrespectful and give them a warning, you better stop doing that or you're really going to irritate me, and if they keep doing it or like, start punching me, then I'll probably…the temper will come out a little bit and I'll probably start getting a little irritated to where it might start turning into a little bit of a scuffle" –TF

"So I guess it's really only as far as how far someone disrespects me, or they disrespect anybody in my family, or someone that I care about…or like a teammate or someone like a brother." –TF

"Cheap shots. Some people, especially in the X region, there is a lot with shit talking, like in X city and Y city…you just keep talking back and forth until somebody loses their temper and gets into a fight." –TF

"From my experience, it might be the same as how I was with like respect toward people, or if you see someone disrespecting one of your teammates…like you're obviously gonna come up and see what the problem is because after you spend so much time together, it basically is your family, so if I'm talking to someone and one of my teammates sees them like push me or something, then automatically, a majority of the time they're gonna come up and start getting into it, or try to break it off…like an older brother would." – TF

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"And then if you're out with your team and one of you starts getting into a fight and other people want to jump in…then every one of your teammates feels obligated to get into it, and will. It's kind of like a chain reaction." –TF

"The aptitude to fight would be if we just lost or if we have alcohol in our system. If we have alcohol in our system, and we have a lot of testosterone, especially how us rugby players are when we're drunk, we like to wrestle around or like push people and stuff like that. And so if we're walking down a street in X, someone …because you have stupid people who are drunk, but we are also slightly drunk…and if they just…put something out like a joke, and if one of us are drunk and we take it serious, it's almost…it's such a hard hassle to break that up because then they automatically feel disrespected and everything all at once, and they're drunk and they just don't care and they don't have common sense to back off. So mainly, for me, it would be alcohol or drugs in your system, or around other people who are drunk as well." -TF

Protective Factors (for off-field aggression)
This codes is used to label the protective factors that participants' identify which may protect against off-field aggression. Subcodes were created for internal protective factors (aspects within the individual that may be a protective factor) and external protective factors (factors outside of the individual that may protect against off-field aggression).

Internal
"I mean, obviously there are certain moments with certain people that provoke me more than others. But generally, I'm a pretty happy, passive person. I was raised in a very passive area." – AV

"So I think like, the more you understand why they act the way they do, then the more likely you'll be able to relate to them and avoid any complication." – AV

"And I think respect has a lot to do with it. If I don't respect someone, then I'm not going to take what they say to heart." – AV

"I don't know…everyone is a unique example. For me, like I live a pretty happy lifestyle. So like, personally, I live together with my girlfriend in our own apartment, we cook a lot of our meals together. So like, my lifestyle is incredibly happy…I go to school, I work, and I come home to my girlfriend and I play rugby. I'm as happy as can be, to be honest. I think if you don't have a good home situation, it will seriously increase the likelihood that you aren't going to get along with other people. So, because I'm pretty happy at the moment, like I'm very active towards certain things, so I'm not looking to pick a fight with anybody for any reason, because I don't have a reason to." – AV

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"I look at it from a physical standpoint, that after game or training, or running, or anything like that, I don't have energy to be mad at little things. Like if my girlfriend doesn't do the dishes or the house is dirty, I don't have energy to argue about it, so it just kind of slides." – AV

"Like I would never go out looking for a fight…that's just not who I am…that's drama and conflict for no reason." -TF

External
"I would say rugby players have aggression and the rugby game is the outlet, but I would say that it's having that brotherhood and group of friends is how you're going to not get in trouble all of the time you're not at rugby. Like that's the part that fixes people." -CM

"It just gets them…like a family, like a group of guys they can kick it with that's gonna be a safe place. Like when you're with your team, you're not gonna get in a fight, you're not gonna worry, you're not gonna have to check your back all the time. You're with people who are going to protect you, and be with you, and at the same time, you're not gonna necessarily go out and do bad things." – CM

"We always try to look after each other, like if someone's fighting over something stupid we try to stop them. It's usually pretty good in that instance." – CM

"That's what's good about rugby, it's a brotherhood…so you're always looking out for each other and you are going to be there if they need the help, but at the same time, you're like, you gotta take care of your own business." - CM

"Communication. Just like with any relationship…the more that you understand the other person's perspective, the more likely that you won't have a disagreement." – AV

"But…there are some fights, where it's just like, dude, this needs to chill out…like, this isn't good. Like this happened last year where part of our team was trying to fight somebody else at X dorm and we were just like, dude, this is getting out of control. You guys need to go one on one with each other and just squash your business…you don't need to bring everybody else into it just because you guys have groups of friends." – CM

"I would also say alcohol might decrease it at the same time, because I've been in a…it depends on the group of people, definitely, like who you're dealing with. And what the aggression is about. Because like I've had…when we went to England with our team, and we got in a full team brawl with their team…like two of our guys got red carded and then afterwards we were just like, "alright dude, well that was the game." The two guys that were…they got in a fight over

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some BS and at the end of the game, the two guys shook their hand, and we all were invited to the pub and drank together, and we were doing boat races with them an hour later. So it's definitely the culture and the types of people you're dealing with, how easily they can get over the BS, and what will it take to squash whatever you're fighting about." – CM

"I would say weed. There are a lot of rugby guys that smoke afterwards too." – CM (in response to question: Are there any other factors you think might decrease the likelihood for off-field aggression?)

"...if they didn't have rugby, they would have even more problems and could be in jail and stuff like that. I have a lot of Polynesian friends who say this to this day, like if I didn't have you guys as my rugby team with all this, I would probably be in jail right now" –CM discussing outlet of rugby for fellow teammates

"It's never like, I'm angry so I'm going to go look for a fight. It's almost like an in the moment thing, where like, it just happens." - PB

"The way they're coached, and the other rugby players'...just their mindsets. Like if you're brought into a rugby team that lets you know it's not OK to fights after...and we'll take care of you...the people you're around always can like calm you down and show what's acceptable and what's not acceptable, you know? And you learn based on what other people do. Like if you're hanging out with the wrong crowd, you know...it can happen." - PB

"But, to me, the reason I never got into a fight in high school or middle school or elementary, especially where I lived, was because no one really ever disrespected me....I was friends with everyone...I never had my own clique...I was friends with everybody in their clique and I would always try to hang out...I'm a pretty good guy to everybody to where they wouldn't disrespect me, and I wouldn't disrespect them." –TF

"from my experience, it might be the same as how I was with like respect toward people, or if you see someone disrespecting one of your teammates...like you're obviously gonna come up and see what the problem is because after you spend so much time together, it basically is your family, so if I'm talking to someone and one of my teammates sees them like push me or something, then automatically, a majority of the time they're gonna come up and start getting into it, or try to break it off...like an older brother would." -TF

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Appendix G. List of Final Focused Codes

Gains From Playing Rugby
- Identity Development
- Emotional Gains
  - o Emotional Outlet
  - o Emotional Regulation
- Physical Gains
- Life Lessons
- Travel Opportunities
- Academic Opportunities

Catharsis Effect
- Physical Sensations Post-Physical Contact
- Cognitive Sensations Post-Physical Contact
- Emotional Sensations Post-Physical Contact

Learned Messages About Fighting
- Culture of Rugby
- Family
- Coach
- Teammates

Risk Factors For Off-Field Aggression
- Internal Risk Factors For Aggression
- External Risk Factors For Aggression

Protective Factors Against Off-Field Aggression
- Internal Protective Factors for Aggression
- External Protective Factors for Aggression

Appendix H. Final List of Theoretical Codes

The Three Theoretical Layers that Influence the Relationship of Rugby and Off-Field Aggression

INFLUENCES PRIOR TO RUGBY PARTICIPATION
Internal Protective Factors

Internal Risk Factors

Learned Messages (from Family)

INFLUENCES THROUGH RUGBY PARTICIPATION
Associated Gains
- Identity Development
- Relational Gains
    - Impact of Coach
- Emotional Gains
    - Emotional Outlet
    - Emotional Regulation
- Physical Gains
- Life Lessons
- Opportunities
    - Travel
    - Academic

Associated Risks
- Team Mentality

Learned Messages (from Coach, Teammates, Culture of Rugby)
- Culture of rugby
    - "Gentleman's Game"
- Coach
- Teammates

INFLUENCES EXTERNAL TO RUGBY PARTICIPATION
External Protective Factors

External Risk Factors

Appendix I. Comprehensive List of Final Theoretical Codes

INFLUENCES PRIOR TO RUGBY PARTICIPATION
This theoretical category captures the following codes that describe different influences on participants' thoughts about off-field aggression, and which existed before they started participating in rugby. The codes in this category include: Internal Protective Factors, Internal Risk Factors, and Learned Messages from Family.

Internal Protective Factors Against Aggression
This code is used to label the protective factors that participants' identify are aspects of themselves, and which may protect against off-field aggression.

"I mean, obviously there are certain moments with certain people that provoke me more than others. But generally, I'm a pretty happy, passive person. I was raised in a very passive area." – AV

"So I think like, the more you understand why they act the way they do, then the more likely you'll be able to relate to them and avoid any complication." – AV

"And I think respect has a lot to do with it. If I don't respect someone, then I'm not going to take what they say to heart." – AV

"I don't know…everyone is a unique example. For me, like I live a pretty happy lifestyle. So like, personally, I live together with my girlfriend in our own apartment, we cook a lot of our meals together. So like, my lifestyle is incredibly happy…I go to school, I work, and I come home to my girlfriend and I play rugby. I'm as happy as can be, to be honest. I think if you don't have a good home situation, it will seriously increase the likelihood that you aren't going to get along with other people. So, because I'm pretty happy at the moment, like I'm very active towards certain things, so I'm not looking to pick a fight with anybody for any reason, because I don't have a reason to." – AV

"I look at it from a physical standpoint, that after game or training, or running, or anything like that, I don't have energy to be mad at little things. Like if my girlfriend doesn't do the dishes or the house is dirty, I don't have energy to argue about it, so it just kind of slides." – AV

"Like I would never go out looking for a fight…that's just not who I am…that's drama and conflict for no reason." –TF

"But, to me, the reason I never got into a fight in high school or middle school or elementary, especially where I lived, was because no one really ever disrespected me….I was friends with everyone…I never had my own clique…I was friends with everybody in their clique and I would always try to hang out…I'm a pretty good guy to everybody to where they wouldn't disrespect me, and I wouldn't disrespect them." –TF

Internal Risk Factors For Aggression
This code is used to label the risk factors that participants' describe as aspects within themselves that may be a risk factor contributing to the likelihood of them engaging in off-field aggression.

"But with all of the anger and testosterone and everything, people get angry and physical fights will happen. You know, boys and men will be boys." – PB

"I wouldn't say rugby fuels it, but I would say rugby players are aggressive people, so naturally, we are kind of drawn to aggression." – CM

"Because to play rugby, you kind of have to have that anger gene…that thing of aggression towards people, but you still have to be respectful. But some people don't learn that, you know? And it takes them awhile to get up to speed and to learn that…to be calm and stuff. I know it actually took me awhile." - PB

Learned Messages (From Family)
This code includes participants' accounts of the messages they received throughout their life from their family regarding off-field aggression.

"I mean, they've (parents) always been against me fighting. But they know I'm an adult now, and they know whatever happens, happens. I mean, they've always been against me fighting I would say. Like they know if I were to get in a fight…it happens. My dad just says, you better not be fighting over something stupid." – CM

"Being African American in America, of course my parents advised me not to attract any unwanted attention to myself on the street. That's just a lesson learned in life. They told me not to get in fights at all." - F

"My mother. She's always been the supportive figure, and we've always been able to talk about anything. And so…through her model, she's passed on to me that pretty much anything you need to deal with, it can be through words instead of actions." –AV

"They would definitely rather me not fight. Um…like they…my mom is terrified of me fighting. She couldn't stand if and when it happens, you know? She's definitely opposed to it, and that's why she ended up putting me in sports…that's why she likes rugby so much." – PB

"Actually, that's probably another reason why I had never gotten into a fight, because of how my grandfather, my uncle, and my mom actually, and her sister, and the rest of the family is…if you get into a fight, you better win. Like if you get your ass kicked and you get home, you're gonna get your ass kicked again by everybody else. If you're gonna get into a fight with anybody, you better be damn sure you're going to win. Or if you're getting jumped by someone, if it's three or more people, then it's fine to just run. That's basically how my family is." -TF

INFLUENCES THROUGH RUGBY PARTICIPATION

This theoretical category defines the following codes that describe different influences on participants' thoughts about off-field aggression through the process and experiences associated with participation in rugby. The codes in this category include: Associated Gains, Associated Risks, and Learned Messages. Each of these codes also have associated subcodes that will be defined below.

Gains From Playing Rugby

This code includes participants' description of the various gains that have resulted from their participation in rugby. The following subcodes were created to categorize different types of gains described: Identity Development, Relational Gains, Emotional Gains, Physical Gains, Life Lessons, and Opportunities.

Identity Development

This subcode describes participants' accounts of how rugby impacted and shaped who they perceive themselves to be as individuals (e.g., their identity).

"I would say rugby has completely changed my life. I would definitely not be the same person I am today without it." – Cookie Monster

"Rugby is definitely a part of my life and changed my life, and I wouldn't be here without it." –CM

"I wouldn't have gone as far without rugby, or at least, not as smoothly. It has helped me with a lot of things" – Tino Francisco

"It's helped me focus on myself, more than football or school or even just being around my family would have." -TF

"So far…I like who I am, and who I am becoming because of rugby…pretty much like the whole scheme of things from…my physique to how interacting with other teammates is affecting my personality, which is pretty nice." -Arthur Vandalay

"Rugby is one of the main reasons um…for me transition from a boy into a man" - PB

Relational Gains

This code describes the relational gains that participants' describe occurred as a result of their participation in rugby. One related but separate tertiary code exists, "Impact of Coach," that will be described further below.

"I don't know, it expands me socially because regardless of whether I get along with someone or not, I kind of have to communicate with them because we are part of a team. So, it has made me more socially adaptable." – AV

"After playing for a little bit, just like the concept of playing as a unit was really appealing to me. And also, no one really heard of it, it wasn't like everyone was doing it, so I kind of felt special" –AV

"… I wouldn't have as much determination to really apply myself, and I wouldn't be as physically active, or as socially active either. Like through rugby, I have met probably…like I would say at least half of the team I generally would say I'm friends with, and then the other half, I just probably haven't met yet. So, I'd meet a variety of people…and it actually motivates me to work out when I'm not playing rugby just so I can be more fit *to* play rugby." - AV

"And socially…I think I'm able to connect to more people because of it (rugby) due to the experiences with teammates." – AV

"They (teammates) are like my best friends now, and even 2 years into college, every summer we go back we go on camping trips together and stuff, they are still my best friends. The experiences I have had with them I can't say I've had with anybody else." – CM

"The people I have met and the places I have gone with rugby…there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington DC, Colorado, Massachusetts. All because of rugby. And I've made friends and relationships in all of those different places. And rugby is the type of sport where you can go and stay in contact with those people…you just be like, "hey, I'm in England, can you pick me up?" And that's the type of thing that would be completely fine to do. It's a very unique sport in that way; the relationships you make are going to be there if you talk to them every day or if you've met them one time.." – CM

"So at least 6 months out of the last 7 years of my life I've been playing rugby, so it definitely had a huge impact on…just the amount of time I put into it, the amount of relationships and emotional connections I've had with people, and stuff like that." – CM

"Well I just say that rugby is more of a mold for that type of brotherhood relationship, instead of different sports like track and stuff…I don't know, it's more of a brotherhood and camaraderie-type game." –CM

"When you're playing rugby, you develop a sense of brotherhood with these guys…they're all your brothers, and if you let them down, it's a big deal once you get that close to people." – Pepe Bonfilio

"I like the camaraderie, all the brotherhood and whatnot. That's what kept me playing." –Flaco

"I would say rugby players have aggression and the rugby game is the outlet, but I would say that it's having that brotherhood and group of friends is how you're going to not get in trouble all of the time you're not at rugby. Like that's the part that fixes people." -CM

"It just gets them…like a family, like a group of guys they can kick it with that's gonna be a safe place. Like when you're with your team, you're not gonna get in a fight, you're not gonna worry, you're not gonna have to check your back all the time. You're with people who are going to protect you, and be with you, and at the same time, you're not gonna necessarily go out and do bad things." – CM

"We always try to look after each other, like if someone's fighting over something stupid we try to stop them. It's usually pretty good in that instance." – CM

"That's what's good about rugby, it's a brotherhood…so you're always looking out for each other and you are going to be there if they need the help, but at the same time, you're like, you gotta take care of your own business." - CM

"…if they didn't have rugby, they would have even more problems and could be in jail and stuff like that. I have a lot of Polynesian friends who say this to this day, like if I didn't have you guys as my rugby team with all this, I would probably be in jail right now" –CM discussing outlet of rugby for fellow teammates

"I would say it is that camaraderie, that friendship and that brotherhood, that it's more just because of rugby, but it's also there because of rugby…it protects…like you have to have that brotherhood to be able to play rugby, otherwise, when you're teammate runs all around, you're not going to have that willingness to run after him when you're dog tired. It has to be like that second nature that I was talking about, that just unconscious feeling that you know that you have to do. Um…so yeah, it's just like group mentality." -CM

Impact of Coach
This subcode is used to label the participants' description of how their relationship with their rugby coach had an impact on different aspects of their lives.

"I was really blessed with a good coach in high school. Like he taught us all the extra things that…he was just that one person…like, he'll always be on my resume as the one person to call, he really kind of shaped my life…like bringing us up as men. And as good athletes. Like always getting to practice on time, like if you're at practice 15 minutes before practice you're on time, and if you show up on time, you're late. And if you're late, you better be sprinting to practice. But we didn't just get away with it, we were just held to such a strict standard, like it just kind of molded my life, like the way I operate. " - CM

> I: It sounds like he taught you guys' life lessons?
>
> CM: Yeah, life lessons, and like goals. Like he would make sure all of us were on track…we had to do grade checks in high school. No other club sport requires that. He would sit people if they didn't have grade checks. He was just very…high class. Like, he didn't allow us to slack off, he didn't allow us to be minimal. He wanted us to be the best, and he knew…even since we were in junior high, he knew our classes that we were in, and he kind of put it in our brains that we were going to win it.
>
> I: It sounds like he was really involved.
>
> CM: Very involved. He was like my second dad, he was my best friend's dad.

"Because my high school coach was big on respect and building character, and with me, I didn't have a father figure for a long time, so my coach kind of became that father figure and…he did a great job kind of introducing us to be like…we're the same people off the field and on the field…so it effects more than just yourself if you make bad decisions…because you represent a lot more than just yourself…you represent your parents and everything. And I feel like rugby really grew me up…I wouldn't be the man I am today without rugby." – PB

"It's just one of the beautiful things about rugby…that you just leave everything on the field. Like after a football game, people leave still angry. And part of the reason is the way your coach is, the way, just like the community of how other sports are." –PB

"A lot had to do with my rugby coach...the high school coach. And then my step-dad coming in and being an assistant coach for rugby, and then, you know, I got a lot of talks on the side, and I had a lot of extra talking to...and it finally started kicking in." –PB

"I lucked out and had a coach that really took us all in, and taught us morals and all that stuff, and I was really lucky with that." -PB

"Well my coaches in particular really were just super supportive. One of my coaches was actually my math teacher in middle school, and he would always mention everyone keeping good in school and what not. And then in high school, they just kept us in check. We had practice and games on the weekend and you got to release all that built up aggression, you know? "–Flaco

"One of my coaches played pro for Chicago, so he was teaching me a lot and telling me about the connections you can make and how much longer you can play compared to football, and how there's like premier league for seniors and all that, and I just got more and more into it." –TF

"Um...and then, my coach started talking to me and the other players and telling us about colleges you can play at, and I wasn't even planning on really going to college, my mom of course already told me to go. I just figured I would start working like everyone else and just try to save it up. But once my coach started talking to me about playing college rugby, I got more into it, and I mainly came to X city just for rugby because I was never in top shape at school." –TF

"I was just always angry and I was always yelling, and I just kind of let...one of my coaches told me they would take away my captain...which they did...and they had the right to. And after that, I just realized my temper was a little bit too much...and I tried to figure out why I was mad, and I just realized it was because of my past, like with my dad and shit." – TF

"With rugby, when they (the coaches) started to take my captain (title) away...because they didn't understand why I was just always mad and it made me focus on myself to take it as...if my coaches, who see me twice a week see how angry I am for no reason...it made me think of how my family who I spent time with, and how I acted around them, and what they thought. So it made me focus on myself more than I ever did, to where I was....it wasn't about losing my captain, it was more of...I want to be better for the future." –TF

"With rugby, the coaches always help us out, especially like...with X Coach...he taught me how to kick, and I was trying to do it his way and it wasn't that great, and he just told me to be comfortable with it and I started modifying it and I got better at it and he was fine with it. But with football, you have to do it one way. Rugby...they modify it and try to help you figure out the best way to do it. It's more of a family towards rugby...at least that's been my experience." –TF

"The way they're coached, and the other rugby players'...just their mindsets. Like if you're brought into a rugby team that lets you know it's not OK to fights after...and we'll take care of you...the people you're around always can like calm you down and show what's acceptable and what's not acceptable, you know?" -PB

Emotional Gains
This code is used to label the emotional gains that participants described as a result of their participation in rugby. Subcodes were created to further distinguish the associated emotional gains, including: Emotional Outlet, and Emotional Regulation. These subcodes will be defined further below.

Emotional Outlet
This subcode is used to label participants' description of the emotional outlet they experience as a result of participating in rugby.

"But what kept me playing was the physical-ness, you know, it was a good release of aggression." –F

"We had practice and games on the weekend and you got to release all that built up aggression, you know?" –F

"I think that I have a very aggressive personality and I always have, and it has taken me a lot throughout my life to control my anger. And I can control it now, but rugby just helps me...I don't know...yeah, I guess I do have a lot of pent up anger. Rugby is my outlet. I don't enjoy the summertime because there is a lot less rugby in the summertime." -F

"My pre-calculus teacher actually sat me down and one time was asking me how I was doing because I was stressing out and uh...I started focusing better in class and she asked me what changed and I told her that rugby just started up and we had our first week of practice, and she started laughing and she was like, that's crazy how it helps you out that much in just one week. So, yeah, it helps me just get away, because I need that time to get away." – TF

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"So…rugby physically wears me down, but it also mentally does…because there's a lot more thinking than I knew there was." –TF

"Throughout all high school, and even now, whenever I just get stressed, me going to practice, just going through drills, helps me … let me get rid of some of that stress." –TF

"When I am in a game situation, and I do something physically that makes a difference, or puts our team in a better position, I start feeling a lot less stressed…I start feeling better about myself especially…like, when I contribute to the team, mainly." –TF

"On the field, you kind of escape reality for 80-90 minutes…and legally, you're allowed to do whatever you need to do to win. And so, through that influence, you get to escape whatever problems you have or…that's when you can resolve a lot of internal issues." – AV

"…I've been doing it (rugby) for 8 years, and it's just my stress-reliever…how I let everything out. So I save it all for rugby, and when I don't have, it kind of builds up even more." –PB on having pent up aggression

"it's like that one chance a week to let out everything that's been bothering you, all that anger that's built up…all the stress and everything…and just be out there on the green grass with your best friends…and going to war against other people and then seeing who comes out on top." –PB

"And with rugby, it really doesn't matter sometimes who comes out on top, because at the end of the day everyone's friends and everyone's talking about the game, and it's just…you let everything out and you just feel like…I don't know, I guess some people get it from yoga, after yoga you feel all relaxed…you're just a teddy bear…you just let everything out that you had on the field. " –PB

"So during the season, you have practice and everything, and you're exercising, and you're letting just a bunch of anger and emotion out, and once every Saturday or Friday, you have 80 minutes, of just all-out war, where you can get all this anger, aggression, and stress, and testosterone out, and after, for the rest of the week, maybe 2 weeks, you're just like this big teddy bear." – PB

"You know, I've had some kind of trouble with my dad leaving and stuff. And so, you know…anybody…any boy who's had like their parent's split up and stuff at a young age and…had to go through poverty and stuff like that…had some built up aggression. And I think having an outlet to let it all out…you know, it's good…in a safe and *controlled* manner that teaches you morals and character and respect…I couldn't think of a better way to do it." - PB

Emotional Regulation
This subcode is used to label participants' description of increased emotional regulation that resulted from participation in rugby.

"I was a very angry kid. It took me a lot to control my anger and rugby very much taught me how to control my aggression." – F

"Not necessarily hardened, but in a way, it has kind of…weeds away little things…Like, I don't take things personally. So you know, rugby kind of…I can't really think of a good way to describe it, but what it did was…it prioritized my emotions I guess, and it really impacted what I should take seriously or not." – AV

"Well…for instance, like, I don't…like certain things don't hurt me, or certain things you just shrug off. Like, when people…like, in rugby people give each other shit all the time, so when we're messing around with each other…it really doesn't impact…I don't take anything personal." – AV

Physical Gains
This code is used to label the physical gains that participants' described as a result of their participation in rugby.

"I would say I've had a lot more injuries than if I would have not played rugby." – CM

"I used to be fat and now I'm pretty muscular. I haven't sustained a lot of injuries in rugby. I've actually been injured more in football practice than I've ever been injured in rugby actually. I don't know, I feel like I'm stronger playing rugby and can take a lot of… pain tolerance now I guess." -F

"It (rugby) has made me far more physically active and healthy." –AV

"…I wouldn't have as much determination to really apply myself, and I wouldn't be as physically active, or as socially active either." – AV

"…and it actually motivates me to work out when I'm not playing rugby just so I can be more fit *to* play rugby." – AV

"So far…I like who I am, and who I am becoming because of rugby…pretty much like the whole scheme of things from…my physique to how interacting with other teammates is affecting my personality, which is pretty nice." – AV

"It (rugby) taught me to physically take care of my body, and preserve it…and it effects my diet, as well." – AV

"I look at it from a physical standpoint, that after game or training, or running, or anything like that, I don't have energy to be mad at little things. Like if my girlfriend doesn't do the dishes or the house is dirty, I don't have energy to argue about it, so it just kind of slides." –AV

"So…rugby physically wears me down…" - TF

Life lessons
This codes is used to label participants' accounts of life lessons that were acquired as a result of participating in rugby. Life lessons can be defined as something from which useful knowledge or principles can be learned.

"It gave me…such growing up, it gave me a place I had to be, it taught me responsibility, like I had to be here…like it wasn't just one person counting on me, I had a bunch of people counting on me…and I didn't want to let my friends down." – PB

"It makes me prioritize my time because rugby is a certain schedule and studying isn't, necessarily. You know, like, I can study whenever but I can't go to practice whenever. So….it really makes me prioritize what times I should use for studying and what times I have for leisure. And…I like it because, if I didn't have rugby, I would use my free time for not taking my studies seriously…So by taking away my free time, it makes me prioritize my regular time." – AV

"I think it's probably the most unique experience I have ever had. Because at the same time you are trying to better yourself physically, it teaches you like you have to be cooperative with other people." – AV

"Like always getting to practice on time, like if you're at practice 15 minutes before practice you're on time, and if you show up on time, you're late. And if you're late, you better be sprinting to practice. But we didn't just get away with it, we were just held to such a strict standard, like it just kind of molded my life, like the way I operate." – CM

"I really think that rugby is one of the main reasons um...for me transitioning from a boy into a man. Because my high school coach was big on respect and building character, and with me, I didn't have a father figure for a long time, so my coach kind of became that father figure and...he did a great job kind of introducing us to be like...we're the same people off the field and on the field...so it effects more than just yourself if you make bad decisions...because you represent a lot more than just yourself...you represent your parents and everything. And I feel like rugby really grew me up...I wouldn't be the man I am today without rugby." -PB

"And for me, on my high school team, it wasn't just about rugby, we had to do a lot outside of the field, like a lot of community service, help around the town and stuff, just let people know we're good guys out of the kindness of our hearts and stuff. That was a big thing for recruits...it was a big thing for coach, and a big thing for us too." -PB

"You kind of got that I used to be an angry kid. You know, I've had some kind of trouble with my dad leaving and stuff. And so, you know...anybody...any boy who's had like their parent's split up and stuff at a young age and...had to go through poverty and stuff like that...had some built up aggression. And I think having an outlet to let it all out...you know, it's good...in a safe and *controlled* manner that teaches you morals and character and respect...I couldn't think of a better way to do it. You know, because you could let out your aggression in a bunch of different ways...like, you could enter the MMA and fight people...and UFC stuff. And I actually did jiu jitsu for awhile. You could do football, lacrosse, water polo, lift weights...but, you know...it's the community of rugby that teaches you these things. I lucked out and had a coach that really took us all in, and taught us morals and all that stuff, and I was really lucky with that. " –PB

"Honestly, when I was in middle school, I wasn't...I was kind of going on along a bad road, I guess a lot of people would say. And I don't know, rugby just kept me in line, rugby and coaches, and I don't know, my teammates, just kept me a straight and arrow, took me to college (laughs). You know, kept me out of trouble." –F

"Well, in middle school, if I didn't have the after school outlet (of rugby) to go to, it would have been all the kids in...the gang members I would have been hanging out with, that I was hanging out with, but I started hanging out with less and less because of rugby." -F

"It taught me a lot more than just controlling my anger. Like how to get along with other people, how to use a team, an entire team to achieve one goal. You know what I'm saying? Just a lot of teamwork. A lot of leadership qualities I have taken from rugby." –F

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"With rugby, when they started to take my captain (title) away...because they didn't understand why I was just always mad and it made me focus on myself to take it as...if my coaches, who see me twice a week see how angry I am for no reason...it made me think of how my family who I spent time with, and how I acted around them, and what they thought. So it made me focus on myself more than I ever did, to where I was....it wasn't about losing my captain, it was more of...I want to be better for the future." -TF

Opportunities
This code is used to label participants' accounts of opportunities that resulted from participation in rugby. The two subcodes of opportunities that emerged, include: Travel Opportunities, and Academic Opportunities. These subcodes will be defined below.

> ### *Travel Opportunities*
> *This subcode describes that travel opportunities that participants' described as a result of their participation in rugby.*
>
> "The people I have met and the places I have gone with rugby...there is no way I would have ever done the things that I've done. I've been to England, I've been to Canada twice, I've been to Washington, DC, Colorado, Massachusetts. All because of rugby" – CM
>
> "I played all through high school and got the chance to travel to England and Wales. I played in Italy my freshman year and I've been to Canada 4 times for rugby, and a few years ago I went to Argentina to play. So I've been all over the world and it's given me a lot of opportunities I don't think I would have had without it. So it's had a huge effect on my life." – PB
>
> ### *Academic Opportunities*
> *This subcode describes the academic opportunities that participants' described as a result of their participation in rugby.*
>
> "Sometimes it (rugby) takes away from studying, sometimes it encourages it" –AV
>
> "I kind of used rugby to transfer to UCSB this year, because I'm not a 3.0 student at the moment. So, I wouldn't have as much determination to really apply myself, and I wouldn't be as physically active, or as socially active either." -AV
>
> "Actually, I'm pretty unique in my situation in that creating scholarships for rugby is a very new thing I would saw. Probably in the last 3 or 4 years. So the fact that I was offered that opportunity right out of high

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school is pretty amazing. With FAFSA and all the scholarships, I was almost on a full ride scholarship, which was very unique and an experience I would have never had the opportunity to experience without rugby." – CM

"I don't think I'd be in college if it weren't for rugby. Rugby is what I love to do…and like…I came to X college because they had a good rugby team…and I wouldn't be here if they didn't have a rugby team." – Pepe Bonfilio

"Honestly, when I was in middle school, I wasn't…I was kind of going on along a bad road, I guess a lot of people would say. And I don't know, rugby just kept me in line, rugby and coaches, and I don't know, my teammates, just kept me a straight and arrow, took me to college (laughs). You know, kept me out of trouble." –F

"Playing rugby is what kept me in school, and you know…like my coaches, my teacher in middle school, they helped tremendously." –F

"I definitely would not have gone to college if it weren't for rugby. I'm only here for rugby…because of rugby." –F

"My coach started talking to me and the other players and telling us about colleges you can play at, and I wasn't even planning on really going to college, my mom of course already told me to go. I just figured I would start working like everyone else and just try to save it up. But once my coach started talking to me about playing college rugby, I got more into it, and I mainly came to X city just for rugby because I was never in top shape at school…I cut classes quite a bit and never really got interested in the subjects, and uh…I just came for rugby season, but then I started actually doing my stuff in school and I went from a 1.9 to 3.8 last semester." – TF

"So, all around, rugby has just been a good way to keep me out of trouble outside of school and a way to get me back into my studies especially since I'm not good at studying, and it's just been a good outlet just for me to get away from everything." - TF

Learned Messages About Fighting
This code is used to identify what messages participants receive about off-field aggression. Subcodes (teammates, coach, culture of rugby) were created to label where/who these messages were coming from.

Culture of Rugby
This subcode is used to label messages about off-field aggression that participants received from the culture of rugby itself. Within this subcode, there is a tertiary code, "Gentelemen's Game," that will be defined below.

"It's a brotherhood game, like it's not out there to kill each other...like it's a game where you beat each other up on the fields, and then afterwards you enjoy each other's company. And some teams understand that culture, and some teams don't, I would say that. Like it describes the type of club, the type of team that you are...Like whether you can separate that on-field and off-field aggression." – CM

"But in rugby, you're taught to leave everything on the field. So like, after games, it's required to have a little social with the other guys, like, in Wales, I had a beer with the guy who broke my nose in a fight, you know? He bought me a beer and we sang songs and everything. I'm the happiest guy after the game, but during the game, it got really rough, you know? It's just one of the beautiful things about rugby...that you just leave everything on the field." –PB

"The culture of rugby always um...it's a good culture and...if you have a coach that really knows it, who's been taught by that...rugby is such a family, that...it's always trying to turn boys into gentleman...that's the great thing about it. It teaches you to have to become a man. And getting into fights on the streets...you just get into trouble and everything, and...it really teaches you that you have that Friday/Saturday night to let your aggression out, and you need to learn to save it until then, and then, let it out then instead of trying to let it out anywhere else. And so, I've had coaches tell me that and stuff. It teaches you how to be gentleman...and still play in a barbaric way." –PB

"Like fighting is not...it's just kind of like something that is welcomed because of how acceptable it was in war back in the day, and then you can still become friends afterwards." –TF

> ***"Gentlemen's Game"***
> *Within the subcode "Culture of Rugby," there exists a tertiary code that is used to label all of the participants' accounts and descriptions of rugby as a "gentlemen's game," and how the culture of rugby emphasized being "gentlemen," with the implication that "gentlemen don't engage in off-field aggression.*
>
> "'Football is a gentleman's game for hooligans, and rugby is a hooligan's game for gentleman.'" – AV
>
> "But really, ideally, you really don't ever want to get in a fight, because in rugby, you are taught to be a gentleman." - PB

"It teaches you how to be gentleman…and still play in a barbaric way." – PB

"Rugby, as it looks pretty crazy, it's pretty elegant too." –F

"They say rugby is a gentleman's sort, played by beasts. And they expect everybody on the field to be best friends. Like you're playing against each other, it's going to be crazy, but after the game, keep it cool. Everyone's fine…everyone's drinking together…everyone's eating together." -F

Coach
This subcode is used to label messages about off-field aggression that participants received from rugby coaches.

"Don't do it. You can't play if you're in jail." – AV

"My coach has a saying that's pretty related to this…my old coach from England. He says, "football is a gentleman's game for hooligans, and rugby is a hooligan's game for gentleman." – AV

"We had a…before every game we had a chant we did, where we'd start yelling "control, rage, control, rage", it was like…a captain in the middle and then everybody else and it starts with a whisper and then gets really loud. He (the coach) was basically telling us that your anger is good, if you use it in the right way, and if you use it in the wrong way, like, you're going to get beat every single time. So he just told us to take our anger and point it in a direction and shoot. And that's just what I do." –F

"All our coach ever tells us, is if we're going to get in a fight, is just to not be wearing the logo of our team. Because that sends a bad signal about our team and what we're about. I mean…fighting *on* the pitch, that's a *whole* different story. It's looked down upon." –F

"He (coach) just harped on us that he would not allow any fighting…any type of disrespect. He was actually kind of the same as…respect-wise, because he would just say if you get punched in the face, just smile back and wait for him on the next play…and that's what he would constantly try to tell us. (Inaudible) Just focus on the bigger picture, or just focus on getting the team a win or making sure you guys play your game…instead of like throwing one punch and you get kicked out the rest of the game and next week's game." -TF

Teammates
This subcode is used to label messages about off-field aggression that participants received from rugby teammates.

"No, just I got your back, you got mine' type stuff" (In response to the question: "Have you gotten messages from teammates about fighting off the pitch?")– F

"I've gotten all different types of messages. There are some (teammates) that are respectful and there are others that just wanna wreak havoc on the world." –PB

"A few of my teammates actually, from high school, and from this team actually, they kind of welcome fighting because how…I guess rugby was used back in the day as war, like instead of going out and using guns and all that…they played games like in New Zealand and Tonga…they used rugby as a way of fighting war to where, basically they were soldiers. And a few of the player still rely on that, and I respect that…where they get into it and they welcome the challenge, they'll welcome the fight…just like, the best man wins, and if someone loses, then they show respect towards each other…like if you get into a bar fight with one of the players, after the fight you'd be buying each other's beer and hanging out." -TF

Associated Risks
This code is used to label the associated risks that participants' described that may increase the likelihood of engaging in off-field aggression as a result of their participation in rugby. One subcode that emerged is Team Mentality, which will be defined below.

"But in the off-season, you don't have that. So when you've been playing for so long, when you've been playing sports, you're body and emotions get used to letting it all out once a week. And then when you're in the off-season, you don't have that, so it gets all built up, and people will get more aggressive than they usually are." – PB

"Cheap shots. Some people, especially in the X region, there is a lot with shit talking, like in X city and Y city…you just keep talking back and forth until somebody loses their temper and gets into a fight." –TF

Team Mentality
This code is used to categorize participants' responses that describe how being apart of a team, or "brotherhood" as participants often refer to it, can increase the likelihood of off-field aggression.

"I would say, rugby players, when we're in a squad, when we're all together, we are definitely more aggressive than when we're not" - CM

"I mean, if any of my rugby buddies, if any of my friends got in a fight, I would back them up regardless of whether I should or shouldn't. I guess I'm at a point in my life where I would help out my buddies regardless of what the reason is…and if I have to deal with consequences, I'll deal with it later." – CM

"From my experience, it might be the same as how I was with like respect toward people, or if you see someone disrespecting one of your teammates…like you're obviously gonna come up and see what the problem is because after you spend so much time together, it basically is your family, so if I'm talking to someone and one of my teammates sees them like push me or something, then automatically, a majority of the time they're gonna come up and start getting into it, or try to break it off…like an older brother would." -TF

"But…there are some fights, where it's just like, dude, this needs to chill out…like, this isn't good. Like this happened last year where part of our team was trying to fight somebody else at X dorm and we were just like, dude, this is getting out of control. You guys need to go one on one with each other and just squash your business…you don't need to bring everybody else into it just because you guys have groups of friends." – CM

"If one person on your team that generally is a dick and if he goes and gets in a fight with somebody else, of course the entire team is going to start fighting." –F

"Sometimes, it's actually more of a team bonding experience because there are certain things that can happen. Like one, if you get in a fight with someone not on the rugby team, and, you know, you're there with you're teammates…then that's more of a cohesive, like bonding experience." – AV

"Imagine a bunch of drunk guys in a bar, two opposite teams, and one guys says something out of pocket…then another guys says something out of pocket…and then every single person is saying something out of pocket. It's just a huge thing." –F

"So I guess it's really only as far as how far someone disrespects me, or they disrespect anybody in my family, or someone that I care about…or like a teammate or someone like a brother." –TF

"From my experience, it might be the same as how I was with like respect toward people, or if you see someone disrespecting one of your teammates…like you're obviously gonna come up and see what the problem is because after you spend so much time together, it basically is your family, so if I'm talking to someone and one of my teammates sees them like push me or something, then

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automatically, a majority of the time they're gonna come up and start getting into it, or try to break it off…like an older brother would." – TF

"And then if you're out with your team and one of you starts getting into a fight and other people want to jump in…then every one of your teammates feels obligated to get into it, and will. It's kind of like a chain reaction." –TF

INFLUENCES EXTERNAL TO RUGBY PARTICIPATION
This theoretical category defines the following codes that describe different influences on the participants' likelihood of engaging in off-field aggression through factors outside of (external to) their participation in rugby. The codes in this category include: External Protective Factors, and External Risk Factors.

External Risk Factors For Aggression
This codes is used to label the risk factors, not directly related to their participation in rugby, that participants' identify may contribute to off-field aggression.

"Well definitely alcohol. That's the big one." – CM

"Drinking alcohol (laughs). Definitely drinking. The time that I have been here in college, I have seen, I think every fight that I have seen out here, whether it was between a rugby player or a football player or whatever…it was fueled by alcohol. Every single one." –F

"At the same time, rage and alcohol fuel people to fight about pretty much anything." – CM

"Alcohol…It just inhibits bad decisions" – AV

"I think any reason that we are fighting at this point is bullshit anyways, there is no real reason we should be fighting…it's over some BS that's probably not a big deal anyways, and we're probably fighting just because there is some alcohol involved and stuff like that. That's why I'm just like, OK, I'll fight for whatever and take care of it later, like I'll probably squash this with people tomorrow and not even worry about it." – CM

"The aptitude to fight would be if we just lost or if we have alcohol in our system. If we have alcohol in our system, and we have a lot of testosterone, especially how us rugby players are when we're drunk, we like to wrestle around or like push people and stuff like that. And so if we're walking down a street in X, someone …because you have stupid people who are drunk, but we are also slightly drunk…and if they just…put something out like a joke, and if one of us are drunk and we take it serious, it's almost…it's such a hard hassle to

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break that up because then they automatically feel disrespected and everything all at once, and they're drunk and they just don't care and they don't have common sense to back off. So mainly, for me, it would be alcohol or drugs in your system, or around other people who are drunk as well." -TF

"It's never like, I'm angry so I'm going to go look for a fight. It's almost like an in the moment thing, where like, it just happens." - PB

"Let's just say I have a girlfriend and I'm walking with her and a guy like grabs her ass or something…stuff like that really ticks me off…and when stuff like that happens, you know, I don't…I'm probably going to hit him in the face." – PB

"I guess…like problems at home. Like if some kids are really troubled at home, and not really doing so well, you know?" – PB (in response to the question, what do you think might increase the likelihood of a rugby player getting in a fight off-field?)

"…If there's a conflict, like if a person's being persistent with trying to provoke you…I think, at some point there's no way out of it and it's sometimes the only way people learn." –AV

"Women. I don't know…if um…it's kind of like a territorial thing almost. Like I don't have a problem myself bringing my girlfriend around, like my rugby teammates at all…I don't judge any one of them. But if certain players are feeling like territorial, so like they…if someone's like a threat to jeopardize their relationship or whatever they're trying to do with a certain girl…that could lead to a physical altercation." – AV

"But when I think it's acceptable to engage in physical fights…is if you're defending somebody, or if…that's pretty much it. If you're defending somebody." –F

"I don't know if there is anything particular that makes rugby players fight off the field. I just think that they are regular people with emotions and that anybody is going to fight who pissed them off." –F

"If I get disrespected, I'm gonna let them know that's disrespectful and give them a warning, you better stop doing that or you're really going to irritate me, and if they keep doing it or like, start punching me, then I'll probably…the temper will come out a little bit and I'll probably start getting a little irritated to where it might start turning into a little bit of a scuffle" –TF

"You learn based on what other people do. Like if you're hanging out with the wrong crowd, you know…it can happen." - PB

External Protective Factors Against Aggression
This codes is used to label the risk factors, not directly related to their participation in rugby, that participants' identify may protect against and lessen the likelihood of off-field aggression.

"Communication. Just like with any relationship…the more that you understand the other person's perspective, the more likely that you won't have a disagreement." – AV

"I would say weed. There are a lot of rugby guys that smoke afterwards too." – CM (in response to question: Are there any other factors you think might decrease the likelihood for off-field aggression?)

"I would also say alcohol might decrease it at the same time, because I've been in a…it depends on the group of people, definitely, like who you're dealing with. And what the aggression is about. Because like I've had…when we went to England with our team, and we got in a full team brawl with their team…like two of our guys got red carded and then afterwards we were just like, "alright dude, well that was the game." The two guys that were…they got in a fight over some BS and at the end of the game, the two guys shook their hand, and we all were invited to the pub and drank together, and we were doing boat races with them an hour later. So it's definitely the culture and the types of people you're dealing with, how easily they can get over the BS, and what will it take to squash whatever you're fighting about." – CM

Appendix J. Theoretical Diagram