THE IMPACT OF KNOWLEDGE OF CHRONIC TRAUMATIC ENCEPHALOPATHY AND
PERCEIVED VIOLENCE ON SPORT SPECTATOR ENJOYMENT

by

RICHARD ALLEN RUSH

KIMBERLY BISSELL, COMMITTEE CHAIR
ANDREW C. BILLINGS
KARLA GOWER
WILSON LOWREY
KEN WRIGHT

A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Communication and Information Sciences
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2015
ABSTRACT

This dissertation investigated how the enjoyment of violent hits in mediated sport is affected by knowledge of CTE and perceived on-field violence. Additionally, this study reviewed the implications of the findings on practitioners in the field of public relations in sport. Zillmann, Bryant, and Sapolsky’s (1989) disposition theory of sport spectatorship was employed to measure several factors affecting enjoyment of mediated sport. Despite the quantity of research surrounding sport media enjoyment, the field has not been explored following the media coverage of the ongoing litigation between the NFL and over 4,500 current and former NFL players. This gap in research requires further exploration into the effects of knowledge of CTE on spectator’s enjoyment. This dissertation employed a within subjects survey to empirically analyze the importance of knowledge of CTE and its affect on perceived levels of violence, as well as the way these two factors combine to affect the overall spectator enjoyment of violent hits in football. The survey consisted of pre-stimuli measures, a collection of 16 football plays and post-stimuli measures following each play. Self-report was used to measure enjoyment while participants viewed the football plays online.

The study revealed many interesting findings the enjoyment of mediated sporting violence. For instance, results showed that the variable for knowledge of long-term injuries impacted enjoyment of mediated sporting violence. Knowledge of Chronic Traumatic Encephalopathy was shown to have a positive relationship with enjoyment at lower levels of violence and a negative relationship with enjoyment at high levels of violence. Results also showed that the largest percentage of spectators found the most enjoyment at intermediate levels
of violence while levels of extremely high and low levels of violence were enjoyed by spectators with higher levels of fanship. Another interesting finding of this dissertation was discovered in the mean enjoyment level across the 16 condition levels presented in the study. The overall mean enjoyment for each condition level increase as violence increases except in the conditions for high levels of violence when the home team was hitting the team with high level of rivalry, and also when the home team was getting hit by a team with a low level of rivalry. Therefore, there is not a linear relationship between enjoyment and violence at all conditions. All of the level four hits were ranked higher in enjoyment than all level two hits; however, they were not ranked higher than all level three hits. This indicates a point of diminishing return for the impact of violence on enjoyment for certain conditions, but not all conditions.

By testing a new variable in conjunction with previously explored variables in the exploration of enjoyment of mediated sporting violence, the current study was able to advance both the disposition theory of sport spectatorship and measures used to examine level of violence used by previous researchers. The theoretical and practical implications of this dissertation are discussed in the final chapter.
DEDICATION

To my family, who has always encouraged me to strive for the highest levels of my potential;
and to my soon-to-be bride, Kelsey, who always motivates me to keep moving forward!
# LIST OF ABBREVIATIONS AND SYMBOLS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha$</td>
<td>Cronbach’s index of internal consistency</td>
</tr>
<tr>
<td>ANCOVA</td>
<td>Analysis of Covariance statistical test</td>
</tr>
<tr>
<td>$\beta$</td>
<td>Standardized coefficient</td>
</tr>
<tr>
<td>BIRG</td>
<td>Basking in Reflective Glory</td>
</tr>
<tr>
<td>CORF</td>
<td>Cutting off Reflective Failure</td>
</tr>
<tr>
<td>DTSS</td>
<td>Dispositional Theory of Sport Specttatorship</td>
</tr>
<tr>
<td>$F$</td>
<td>Fisher’s $F$ ratio: A ratio of two variances</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
</tr>
<tr>
<td>M</td>
<td>Arithmetic mean</td>
</tr>
<tr>
<td>N</td>
<td>Sample size</td>
</tr>
<tr>
<td>NCAA</td>
<td>National Collegiate Athletic Association</td>
</tr>
<tr>
<td>NFL</td>
<td>National Football League</td>
</tr>
<tr>
<td>SCCT</td>
<td>Situational Crisis Communication Theory</td>
</tr>
<tr>
<td>SD</td>
<td>Standard deviation</td>
</tr>
<tr>
<td>$r$</td>
<td>Pearson product-moment correlation</td>
</tr>
<tr>
<td>$p$</td>
<td>Probability value</td>
</tr>
<tr>
<td>$t$</td>
<td>Computed value of $t$ test</td>
</tr>
<tr>
<td>$&lt;$</td>
<td>Less than</td>
</tr>
<tr>
<td>$&gt;$</td>
<td>Greater than</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

First and foremost I would like to thank God for blessing me with the privilege and opportunity to attend graduate school at The University of Alabama. There is no doubt in my mind that it has been the Lord’s hands that have orchestrated every detail of the blessings that I have received, and I am forever grateful.

I would like to thank my fiancée, Kelsey, for constantly being a source of motivation and encouragement. Your confidence in my abilities, knack for pushing me when needed, and excitement to celebrate with me through victories are things that I am grateful to have with me through the journey of life. The long days that turned into late nights writing and doing research were so much more enjoyable with you by my side. You make life fun, and I couldn’t imagine spending the rest of my life with anyone else!

To my parents, Rick and Susie Rush, who have always lovingly supported, sacrificed, and encouraged me unconditionally. I know that I would not have reached this life goal without all of your help and prayers. You have taught all of us to set priorities and live by them, but most importantly, you taught us to never start anything that we weren’t prepared to finish. Without these life lessons, I would not have had the endurance that it takes to accomplish this life goal. To my brothers and sisters (Rachael, Erik, Sarah, Stephen, Rebekah, Caleb, and Seth), thank you for being constant sources of encouragement. Having siblings that are as talented and caring as all of you has helped in ways that you will never know. Each of you has individually touched my
life during my time in graduate school and I cannot thank you enough for blessing my life in your unique ways.

I truly couldn’t have completed this program, and dissertation, if it were not for a few key academic influences. First, it has been an honor to work with Dr. Kim Bissell, my dissertation chair, advisor, and friend. This life goal would still be a dream without your help. I will always appreciate your willingness to give your time, efforts and knowledge to helping me accomplish this goal. It has been an absolute joy to work with you and learn from you. Secondly, I would like to thank Ms. Diane Shaddix. Mrs. Diane: Your advice and encouragement have been invaluable in navigating the steps to get from graduate school orientation to where I am today. Your door is always open to your students and you’ve made sure that I haven’t missed any deadlines or forms in order to achieve this goal. I appreciate your kindness more than you will ever know and I look forward to celebrating over a coffee very soon. I would also like to thank Dr. Phelps for giving me the opportunity to teach courses in the APR department and gain invaluable experience in the classroom. The experience that I have gained has prepared me for the job market and the next steps in my professional career.

I would also like to thank my committee, Dr. Billings, Dr. Gower, Dr. Lowrey and Dr. Wright. It has been such a pleasure and honor to work with each of you in my journey through this graduate program and dissertation process. Thank you Dr. Billings for exciting me about the possibility of researching sport communication! Thank you Dr. Gower for your support (and letters of recommendation) since my years as an undergraduate. Dr. Wright, thank you for allowing me to study in the sport management program, for your professional advice and for your constant encouragement. And, thank you Dr. Lowrey for being willing to take on this dissertation when you already have so many on your plate.
To my roommate, Jared, thank you for keeping me sane and for reminding me to have a little fun. You’ve been one of the people that I know that I can depend on no matter the situation, and the encouragement and support that you have given me throughout the years has meant more to me than I can put into words.

Finally, I want to thank everyone that has prayed for me, loved me and supported me during this time in my life. I cannot begin to list all of the names of individual who have meant so much to me and helped me through this process! The support that I have felt over the past three years has been extraordinary, and I can’t begin to thank you all as much as you deserve! Roll Tide Roll!!
CONTENTS

ABSTRACT..................................................................................................ii

DEDICATION..........................................................................................iv

LIST OF ABBREVIATIONS AND SYMBOLS.............................................v

ACKNOWLEDGEMENTS..........................................................................vi

LIST OF TABLES.....................................................................................xi

LIST OF FIGURES..................................................................................xiii

CHAPTER ONE: INTRODUCTION..............................................................1
  Purpose of Dissertation........................................................................10
  Significance of Dissertation..............................................................12
  Overview of Dissertation...................................................................13

CHAPTER TWO: REVIEW OF LITERATURE..............................................17
  Disposition-Based Theories.................................................................17
  Disposition Theory of Sport Spectatorship.........................................21
  Enjoyment of Mediated Sport ............................................................25
  Moral Judgment in Media ..................................................................30
  Fan Identification...............................................................................33
  Sport and Violence..............................................................................37
  Knowledge and Experience...............................................................40

CHAPTER THREE: METHODOLOGY........................................................45
  Study design.....................................................................................45
LIST OF TABLES

3.1 Video Manipulation List ................................................................. 48
3.2 General Sport Fanship Scale: (Arpan & Raney, 2003) ......................... 49
3.3 Sport media consumption rates ......................................................... 50
3.4 Football-playing/viewing history: (Gurhan-Canli, 2003) ................. 51
3.5 Knowledge of CTE: Causes and long-term effects ............................. 51
3.6 Sport Spectator Identification Scale (Wann & Branscombe, 1993) .... 52
3.7 PCT Scale items (Mahony, Madrigal, & Howard, 2000) .................. 53
3.8 Perceived Violence Scale Item (Raney & Kinnally, 2009) .............. 54
3.9 Disposition toward Opposing Team (Raney & Kinnally, 2009) ...... 55
3.10 Perceived Level of Rivalry: (Raney & Kinnally, 2009) .............. 55
3.11 Enjoyment of Mediated Sport: (Raney, 2002) ................................ 56
3.12 Summary of Research Questions and Hypothesis ......................... 59
4.1 Reliability and Normality of Variable: Enjoyment of Mediated Sport .... 63
4.2 RQ1A ............................................................................................... 69
4.3 RQ1B ............................................................................................... 70
4.4 RQ1C ............................................................................................... 71
4.5 RQ1D ............................................................................................... 72
4.6 H2 .................................................................................................. 74
4.7 RQ2A ............................................................................................... 75
4.8 RQ2B ............................................................................................... 76
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.29</td>
<td>Significance Table</td>
<td>95</td>
</tr>
<tr>
<td>4.30</td>
<td>Significance Table</td>
<td>95</td>
</tr>
<tr>
<td>4.31</td>
<td>Significance Table</td>
<td>96</td>
</tr>
<tr>
<td>4.32</td>
<td>Significance Table</td>
<td>96</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

According to Nielsen.com, the National Football League (NFL) dominated television in 2012, holding eight of the top 10 most watched programs of the year. This statistic was bested in 2013 when the NFL held nine of the top ten most watched programs of the year. Forbes’ estimates that the revenue of the NFL has increased from $6.5 billion in 2006, to over $9.2 billion in 2013, and corporate sponsorships to the NFL account for over $1 billion annually, which accounts for forty percent of the total sponsorships to the top four major sports leagues in the U.S. (Burke, 2013). Although NFL statistics show that America’s favorite pastime is continually growing, a recent study by ESPN.com reveals that this trend may be coming to a halt. As with any organization, sport organizations and franchises are not immune to the threat of crises, nor can the entertainment value grow large enough to overcome all situational crises without the organization issuing the correct response. Coombs (2012) stated that in the arena of sport, crises occur both on the field and off the field, thus offering a greater risk of harm to the organizational reputation. Although crisis communication has been applied to sport on the individual athlete level, and the franchise or team level, little research has been done on the affect of a league wide crisis on entertainment enjoyment. The following study has two main objectives: (A) To explore how the enjoyment of violent hits in mediated sport is affected by knowledge of CTE and perceived on-field violence, and (B) to draw implications on how a sport league’s response to a crisis affects the overall enjoyment and potential supportive behavior of its spectators. The defined objectives will be elaborated on in the subsequent chapters.
As of August 2013, The NFL and current and retired players have reached a tentative $765 million settlement over concussion related brain injuries. According to NFL.com (2013), the $765 million will be provided to cover compensation, medical expenses and underwriting research for the 18,000 current and former players. ESPN reporters (Fainaru, Fainaru-Wada & Munson, 2014) have recently stated that the settlement has not come without opposition from the current and former players. These current and former players state that not only is this allotment not financially sufficient to cover the medical expenses of the 18,000 players involved in the suit, but also that too few players actually qualify under the terms offered by the settlement. The current settlement states that the league does not admit any wrongdoing, does not cover any deaths prior to 2006, and would deny any future suits by current players who have similar medical symptoms (PBS, 2013). According to ESPN.com, the suit that began in April 2011 is concerning the misrepresentation of information regarding the link between playing football and long-term brain damage. Since the lawsuit was filed, media outlets of every shape and size have covered the physical effects of Chronic Traumatic Encephalopathy, also known as CTE (Burke, 2013).

According to Rabadi and Jordan (2001), CTE is a disorder that represents the long-term neurologic consequences of repetitive trauma to the head that occur in sports such as boxing, ice hockey, martial arts, and specifically American football. In the United States (US) alone, nearly 1.5 million Americans suffer from traumatic brain injuries (TBI) with no loss of consciousness or need for hospitalization. That number doubles when looking at Americans suffering from TBI while additionally experiencing some sort of impairment of consciousness that does not require long-term hospitalization (DeKosky, Ikonomovic, & Gandy, 2010). In 2011 the CDC reported that there were, on average, 173,285 emergency room visits per year that are directly attributed
to nonfatal sport-related head injuries. This number has risen 60% over the last decade (CDC, 2011). Although concerns of sport-related head injuries have been a concern in the US since the death of 19 football players in 1905, a definitive explanation of the long-term impact of sport-related head injuries has eluded medical researchers until the past decade (McCrory, Meeuwisse, Aubry, Malloy, & Cantu, 2009). A working definition of the term “concussion” was not developed until the third international conference on concussion in 2008 when a panel of experts outlined the term as, “a complex pathophysiological process affecting the brain induced by traumatic biomechanical forces” (McCrory et al, 2009, p. 142). The lack of research on concussions is in large part due to the fact that symptoms of the injury are often undetectable immediately following the injury. Although concussions often have minor and even undetectable symptoms, there is a growing body of research indicating that repetitive head trauma can lead to significant disabilities and even fatalities (Barkhoudarian, Hovda, & Giza, 2011). The term “punch drunk” was originally used in 1928 to describe the symptoms of repetitive head trauma due to the fact that the condition was only thought to affect boxers. More recently, the term has been changed to “chronic traumatic encephalopathy” to include sports other than solely boxing. In 1989, medical researcher, Corsellis (1989) defined CTE as a condition affecting the overall mental deterioration with symptoms that resemble Parkinson’s disease. Although the research surrounding this medical condition are in their infancy, the symptoms of CTE have been found to begin with confusion, tremors and slowing of speech, and progressing to dementia, poor judgment, irrational behavior and depression (Corsellis, 1989).

The knowledge of CTE impacting American football players hit the main stage of the modern media in 2005 when Omalu and a team of researchers reported the autopsy results of the first NFL player with a confirmed case of CTE (Omalu, Dekosky, Minster, Kamboh, Hamilton,
& Wecht, 2005). Since the first reported case of CTE in the NFL, more and more professional and ex-professional athletes have come forward to share their experience in living with the symptoms associated with this condition. The knowledge of potential long-term injuries and a continual increase in awareness of such problems through exposure to sport media sets the stage for a potential crisis that communication researchers are finding may not only change the participation rates, but may also impact the way that the game is viewed and enjoyed. A study released by ESPN’s “Outside the Lines” (Fainaru & Fainaru-Wada, 2013) states that Pop Warner, the nation’s most notable youth football program, had a drop in participation of 9.5 percent between the years of 2010 and 2012. This decrease in participation of 23,612 youth football players is the largest drop in the organization’s history. According to this same article, Pop Warner officials have declined that there is a link to the potential for long-term injuries and participation rates; however, Pop Warner’s chief medical officer, Dr. Julian Bailes stated that unless leaders in football deal with the truths, the sport is not going to get past the dropping popularity of the sport and people dropping out of the sport” (Fainaru & Fainaru-Wada, 2013). This situation, as discussed by Dr. Julian Bailes, directly corresponds with Coombs (2007) definition of a crisis. Coombs (2007) suggested that a crisis is merely the perception of an unpredictable event that harms the expectations of stakeholders and has the potential to damage an organization’s performance and generate negative outcomes. The drop in participation rates of Pop Warner football is not necessarily caused by a lack of enjoyment found in watching hard hits on the field, but rather is a symptom of a larger problem. This larger problem is the increased knowledge of spectators surrounding the effects of playing football. Parents understand that hard hits on the field can have long-lasting repercussions, and because they do not want their children to be injured, the children are not allowed to play football. If children and young teenagers are
not allowed to play football, but are allowed to play other sports, one can conclude several possible repercussions. One possible repercussion is that the young athlete may build a greater affinity for consuming sport media surrounding sports that they are allowed to play rather than football. A second possible repercussion is that young athletes may build a greater skill set for sports other than football at a young age and decide to continue playing those sports as they grow older rather than football because of prior accomplishments. A third repercussion that football leagues have not had to worry about is revenue growth lost to other sports. Niche sports have historically had trouble with growth because there is a lack of revenue to promote the sport and recruit young athletes. With young athletes turning their attention away from football and toward other sports, there will be an increased revenue gained by less popular American sports allowing for a continual growth within those organizations. The outcome of each potential repercussion, as previously defined, is the same long-term repercussion for the sport of football—loss of revenue. This loss of revenue may come in the form of decreased game attendance, sponsorship monies, memorabilia and merchandise sales.

The ratings and sponsorship success of the NFL which is due largely to a nationwide passion for consuming mediated sporting events on television has only been intensified by the ability of viewers to use a second screen while consuming sport media. According to Nielsen.com (2014), Americans aged 13 and older who own and frequently use smart phones and tablets rated using a second screen as the number one activity to do while watching TV. Of those that own tablets, forty percent stated that they often used their tablet to look up athletes while consuming televised media and twenty-nine percent of smart phone users said that they often checked sport scores while watching other televised programs. Previous research in sport media entertainment has looked at numerous deciding factors that cause sport fans to consume and
enjoy mediated sport; however, this specific study will explore the entertainment crisis that seems to be looming as enjoyment decreases and the attention toward long-term injuries increases. Arthur Raney (2003a) defines enjoyment as pleasure experienced through the consumption of mediated sport entertainment. Crisis communication researcher, Coombs, defines a crisis as merely the perception of an unpredictable event that harms the expectations of stakeholders and has the potential to damage an organization’s performance and generate negative outcomes (Coombs, 2007). Therefore, the researcher is using these previously defined terms when defining a crisis of entertainment as the loss of pleasure experienced through consumption of sport media that has the potential to damage an organization’s performance and generate negative outcomes.

Previous sport entertainment research has found that there is a positive correlation between spectator enjoyment and the increase of sport violence on the field of play (Bryant, Brown, Comisky & Zillmann, 1982; Raney & Kinnally, 2009). There is one large fault to this premise. It does not take into account the recent increase in awareness of the long-term effects of on-the-field violence that has happened since the national media coverage of the litigation between the NFL and over 4,500 current and former NFL players. According to researchers, this litigation has caught the attention of media outlets of every shape and size, and has brought with it an awareness of the potential long-term injuries associated with sports such as football (Burke, 2013). This increased knowledge of the long-term effects of concussive and subconcussive blows to the head may change the previously noted correlation and alter future sport entertainment research. The importance of knowledge of CTE, experience (kretchmar, 1994; Hoffman, 2009) and perception of sport violence (Bryant, Comisky & Zillmann, 1981; Peterson & Raney, 2008; Raney & DePalma, 2006) have been well documented in entertainment
enjoyment literature; however, the previously mentioned variables have not been explored following the international media coverage of the April, 2011 NFL litigation.

The risk posed by a potential crisis of entertainment has a positive correlation with the increase in revenue and corporate sponsorships afforded to the NFL. Coombs (2012) notes that a crisis has the ability to totally disrupt an organization’s day-to-day activities, which can cause negative consequences, including but not limited to damaging the organization’s reputation. According to Brazeal (2008), any damage to an organization’s reputation has a direct relationship to the organization’s market value. When discussing the reputation of a sports organization that is in constant view of the media, this is critically important because Coombs (2012) notes that the risk of a crisis is multiplied with the growing connectivity of stakeholders through media outlets. According to Coombs (2012) the growing news coverage of the NFL and number of news outlets dedicated to covering sport news should directly increase the potential for a crisis. The entertainment crisis that faces the NFL not only affects the current revenue, but could potentially effect future revenue and the future of the sport. Wilson, Stavros and Westberg (2010) found that a sport organization or athlete that faces a crisis will often lose sponsorship revenue. Morris and Nydahl (1983) stated, “While the viewer is interested in the game, the network is interested in the viewer; to the network, the game is to catch the viewer” (p. 202). If the network is interested in the fan, and the fans lose interest in consuming media surrounding a certain league, revenue from the network will follow the interest of the fans. The recent sporting news is littered with athletes and organizations that have faced a crisis and lost large sponsors because of many forms of transgressions that have occurred both on and off of the field. The loss of organizational revenue is simply a symptom of the way the crisis has affected the fans or stakeholders. For example, McCarthy found that a crisis in sport can harm attendance at a
sporting event. The lack of attendance harms the revenue of the organization, but is caused by the fans themselves. The fact that attendance can be harmed by an organizational crisis in sport shows that an entertainment crisis in sport is plausible.

In the early 1980’s, scholars such as Kruse (1981) dismissed the idea of analyzing crisis communication and image repair in sport through an academic lens. The idea behind this dismissal was due to the belief that winning and success on the field was all that mattered to the team or organization’s stakeholders. Previous research has coincided with this belief (Anderson, 2013; McCloskey & Bailes, 2005); however, sporting crises that have been covered through numerous media outlets such as the controversy surrounding Tiger Woods, or Kobe Bryant have shown that crisis situations have negative effects on the athlete and sport team following a crisis situation regardless of record. Brazeal (2008) found that the impact of sport related crises on a player or team has become magnified through the increase of time allotted to sport news entertainment. As entertainment media’s need for stories and ability to inform a mass audience has increased, the ability to instruct stakeholder perceptions has also become additionally important. According to Coombs (2012) communicating during times of crisis gives sport organizations the ability to better contain the situation by instructing stakeholders on next steps that will be taken by the organization, assisting stakeholders in the adjustment to the crisis situation, and aiding sport communication managers in damage control of a tarnished reputation.

In an industry where stakeholders’ perceptions and enjoyment of viewing mediated entertainment control the potential for a crisis, it is critical for sport crisis managers to understand what constitutes a crisis, what crises have the most potential to occur, and how to effectively use crisis communication to their advantage.
When considering the possibility of an entertainment related crisis in sport, it can be to the sport organizations advantage that they possess a uniquely connected group of stakeholders. Research has shown that a fans self esteem is often tied to the organization that possesses their fandom. Raney (2006a) found that there is a positive correlation between the success of a fan’s favorite team/organization and how the fan feels about him/herself. This connection that fans experience has been referred to as fan identification (Wann, 2006). Wann (2006) describes fan identification as “the extent to which a fan feels a psychological connection to a team and the team’s performances are viewed as self-relevant” (p. 332). A fan can feel varying levels of “identification” toward a player, team or organization. There is one situation where fan identification can play a negative role in the entertainment crisis facing the NFL. If a fan feels a stronger identification towards a certain player than they do toward the overall league, then the fan’s loyalty will lie with the players rather than the league. Because the league is in a lawsuit against over 4,500 current and former players, this fan identification could escalate the possibility of a crisis of entertainment for the NFL and potentially the sport as a whole.

As previously stated, the continuous flood of mediated sporting news offers a unique risk for crisis situations in the realm of sport. Previous sport crisis literature offers insight into multiple on and off the field crisis situations, however no previous study directly examines the crisis that is associated with loss of enjoyment through entertainment due to an organizational sporting crisis. Because of this gap in research, the current study will draw from the collected data examining enjoyment of mediated sport and will build a base for future research on the impact of a sport league’s response to a crisis and its affect on the overall enjoyment and potential supportive behavior of its spectators. The implications drawn from the findings of the current study will be used to create a list of necessary response strategies and best practices by
the NFL. This study will use Coombs’ SCCT (2007) as the theoretical framework for the implications section. According to Coombs’ (2007) crisis typology, the accusation of misrepresentation of information, such as what has happened in the NFL, can be considered an organizational misdeed, which causes high levels of attribution of crisis responsibility.

Misrepresentation of information can be considered an organizational misdeed because the information that the players received concerning concussive and subconcussive blows to the head and their connection with long-term neurological damage was falsified came directly from the overarching organization of the NFL. Misrepresentation of information can also be considered an organizational misdeed because the stakeholders perceive it as an inappropriate operating manner based on moral or ethical grounds.

**Purpose of Dissertation**

The purpose of this dissertation is two fold: (A) To explore how the enjoyment of violent hits in mediated sport is affected by knowledge of CTE and perceived on-field violence, and (B) to draw implications on how a sport league’s response to a crisis affects the overall enjoyment and potential supportive behavior of its spectators. First, using Zillmann, Bryant, and Sapolsky’s (1989) disposition theory of sport spectatorship, this study will explore several factors affecting enjoyment of mediated sport. This study will seek to understand how the media coverage of the ongoing litigation between the NFL and over 4,500 current and former NFL players has affected the audience’s knowledge surrounding the potential risk of injuries associated with concussive and subconcussive hits to the head. Burke (2013) found that the litigation has caught the attention of media outlets of every shape and size, and has brought with it an awareness of the potential long-term injuries associated with sports such as football (Burke, 2013). This study will
analyze how this increase in awareness affects the perception of violent and non-violent hits on the field of play. Research in the field of sport violence (Bryant, Brown, Comisky & Zillmann, 1982; Raney & Kinnally, 2009) has found that there is a positive correlation with the level of violence and the level of spectator enjoyment; however, it is important to note that this research happened before the previously mentioned large-scale media coverage referred to by Burke (2013).

When keeping in mind the influence that media coverage can have on the perceptions of individuals, it should be logical to assume that a fan who has highly identified with a player, and who has gained knowledge surrounding the danger of concussive and subconcussive hits to the head will have a drop in enjoyment when such hits are sustained by their favored player or team. The current study will not only test the level of enjoyment of the highly identified fan, but will also test the level of enjoyment of fans across the entire spectrum of sport fanship in American football to see if the level of knowledge surrounding the lasting effects of on the field violence impede the enjoyment sought through the consumption of mediated sports. If the response of the public is a loss of enjoyment to extremely high levels of violence, then the past paradigms associated with sport violence and enjoyment must be revised.

In summary, this dissertation will analyze the importance of knowledge of CTE and its affect on perceived levels of violence, as well as the way these two factors combine to influence the overall spectator enjoyment of violent hits in football. This study will also allow the researcher to use the findings to draw implications for the field of public relations in sport and create a list of best practices based on the findings of this study and current crisis communication literature. The researcher will use a within-subjects survey design to explore the previously
mentioned factors by exposing the participants to a series of individual football plays varying in levels of violence and spectator/team identification.

**Significance of Dissertation**

Through its extensive nature, review of previous literature, and quantitative findings, the current study presents three theoretical and practical implications that will contribute to knowledge in the fields of media effects and public relations research. Through an exploration of the effect of knowledge of CTE on factors triggering enjoyment of mediated sport entertainment, the current study will also allow this research to uncover future lines of research in media effects and crisis communication while offering insight for future public relation practitioner application.

First, this study will add empirical evidence to the investigation of knowledge of CTE and perceived violence in entertainment enjoyment research. The importance of knowledge, experience (Kretchmar, 1994; Hoffman, 2009) and perception of sport violence (Bryant, Comisky & Zillmann, 1981; Peterson & Raney, 2008; Raney & DePalma, 2006) have been well documented in entertainment enjoyment literature; however, little research has been done to examine how these factors affect enjoyment following the media coverage of the April 2011 NFL litigation. The present study will expand the empirical evidence dedicated to the exploration of spectator enjoyment found through mediated sport entertainment and will provide a baseline for future research in media effects literature.

Second, this study will add to the growing body of sport crisis communication literature, by offering insight into future implications of a decline in spectator enjoyment. Through this exploration, the researcher will be able to provide a baseline whereby future researchers in sport
crisis communication can test crisis response strategies used during crises and the affect that those strategies have on the audience. This study will provide evidence of media effects based on the current state of the audience’s level of knowledge surrounding CTE, and potential changes in the beliefs surrounding perceived violence and enjoyment.

Lastly, this study will provide future researchers and practitioners with information concerning the potential shift of an established paradigm in sport entertainment and will allow the researcher to define a list of best practices for success in both the field of academic research and sport communication. Past researchers (Curtin & Gaither, 2005; L’Etang, 2006) have stated that there is a lack of research-based evidence in the field of sport public relations that has a practical application. A better understanding of the post-April 2011 knowledge surrounding violence in sport will not only allow this research to draw conclusions regarding the threat of a sport entertainment related crisis, but will also allow the researcher to recommend the most accommodating crisis response strategy.

**Overview of Dissertation**

The first chapter of this dissertation aims to define the potential for an entertainment crisis in professional sports by identifying the current role of perceived levels of violence and knowledge in the enjoyment of mediated sport. The first chapter describes the need to empirically test the paradigms surrounding this field of study and offers insight into why there may be a change in the affect of violence on enjoyment of entertainment sport media. Chapter 2 presents a review of the relevant literature needed to build a case for a new way of examining the impact of knowledge and sport violence on enjoyment of entertainment media. The literature in chapter 2 will also enable the researcher to have a firm foundation for drawing future
implications for practitioners and presenting a list of best practices for sport crisis communicators. The literature reviewed in this chapter will include the areas of disposition-based theories, disposition theory sport spectatorship, enjoyment of mediated sport, moral judgment in media, general sport fanship, knowledge of CTE, spectator identification, and perceived violence. The literature review covers all necessary variables and theoretical mechanisms to successfully explore the current state of enjoyment surrounding sporting violence. Chapter 2 begins by describing the disposition theory of sport spectatorship (DTSS) (Zillmann, Bryant & Sapolsky, 1989), the primary theory used to examine why spectators enjoy certain sport media, and also explores the literature surrounding the recent factors affecting the impact of perceived violence on the enjoyment of mediated sport. The presentation of current literature, as well as the findings of this study are viewed through the theoretical framework of the DTSS in order to suggest media effects on the current perceptions of sport spectators when viewing varying levels of mediated sporting violence. The presentation of current crisis literature in conjunction with the evidence provided by the findings of the media effects study will be viewed through the theoretical framework of the situational crisis communication theory (SCCT) (Coombs, 2007) in order to draw implications for current and future public relations practitioners. The implications drawn from SCCT (Coombs, 2007) will show how crisis communication can play a role in combatting any shift that may occur in enjoyment. These implications will be used to suggest the most accommodating response strategies for PR practitioners in the sport entertainment industry. Chapter 3 includes all information relevant to the exploration of the effect of knowledge of CTE and perceived violence on enjoyment of sport entertainment media. Chapter 3 will be used to define how the study will function methodologically. First, Chapter 3 will provide a list of the research questions and hypothesis
that will be explored through this dissertation. Second, chapter 3 will describe the independent and dependent variables associated with this study, and lastly, chapter 3 will define the approach and procedures used by the researcher in the research process. Chapter 4 will present the results found by the researcher through conducting the media effects survey. Chapter 5 will discuss the ways that the findings of the survey add to the body of literature surrounding perceived violence, knowledge of CTE and enjoyment of mediated sports. Chapter 5 will also be used to discuss any implications of the findings on public relations practitioners and will allow the researcher to build a list of best practices for entertainment crisis management in sport. The researcher will then discuss any limitations of the current study and will list potential suggestions for future research.

When operationalizing theoretical constructs and definitions in research that challenge paradigms of a given field, academic researchers, educators and professionals should clearly define any terms that may be at the crux of the exploration. Thus, to allow for stronger clarity and for the purposes of this research, the definitions of the independent and dependent variables are as follows:

- **General Sport Fanship** – the degree to which the spectator enjoys consuming sports
- **Fan Identification** – the perceived bond between a fan and their favorite athlete/team.
- **Knowledge of CTE** – the spectator’s knowledge of the risks of long-term effects associated with action on the field
- **Perceived Violence** – the spectator’s perception of, “hostile and intentional acts of one person against another through physical force” (“NCTV says,” 1981, p.63). Hostility in this case will be understood as the competition between two opposing sides in the sport (Raney & Depalma, 2006).
• Enjoyment of Mediated Sport – the pleasure experienced from consumption of mediated sport entertainment
CHAPTER TWO

REVIEW OF LITERATURE

Beginning with a broad view of the concepts associated with sport spectator enjoyment and focusing in on the impact and implications of an increased awareness of health-related factors in sport, the researcher will present a review of the literature in the following areas: of disposition-based theories, disposition theory sport spectatorship, enjoyment of mediated sport, moral judgment in media, general sport fanship, knowledge, spectator identification, and perceived violence.

Disposition-Based Theories:

Disposition-based theories of enjoyment explain why we like what we like. According to Raney (2003), disposition-based theories of enjoyment can be used to not only explain why, but can also be used to predict why people will enjoy certain types of media content. Zillman and Cantor first developed the seminal ideals behind the disposition-based theories in 1972 with the development of the disposition theory of humor. This original theory (1972) was used to describe the ways in which listeners and readers of entertainment media were able to draw enjoyment out of jokes that involved the disparagement of individuals or groups of individuals. Zillmann & Cantor (1977) discussed the concepts behind the traditional studies on disposition and defined enjoyment as an emotional response to characters within a program. Zillmann and Bryant (1975) stated that the amount of enjoyment is directly related to the outcomes of the characters. In more simple terms, the original theory found that personal enjoyment derived from media content is
merely a function of the consumer’s disposition toward or against characters in a particular narrative, and the outcomes of those characters throughout the storyline (Raney 2003).

Zillmann and Bryant (1975), describe the viewer’s dispositions towards characters of media entertainment as being made through moral judgments about the characters in a particular story or narrative. This view of audience dispositions towards characters being made through moral judgments was not confronted with opposition from the theory’s origination until recently. In 2004, this idea was criticized by a fellow disposition researcher, Arthur Raney, who found that consumers do not “always” make these moral judgments, but sometimes developed positive or negative dispositions towards characters before any “moral scrutinizing occurred” (Raney, 2004). Raney’s argument for this criticism was that viewers often expect that characters that hold positive dispositions will do good things and characters that hold negative dispositions will do bad things. Raney (2004) posits that these expectations lead viewers to interpret character actions and motivations in line with the established dispositional valences rather than taking the time to morally scrutinize each action and motivation. Raney (2004) found that we as entertainment viewers often trade our “lens of moral scrutiny for one of partiality and favoritism” (p. 363).

A second inference that can be made in regard to the original disposition-based theories is that not only do we as viewers enjoy when the liked character wins and the disliked character loses, but that the level of enjoyment increases as liked characters experience increasingly positive outcomes and disliked characters experience increasingly negative outcomes (Zillmann & Bryant, 1975). The reverse of this is also true in that enjoyment is found to decrease when disliked characters experience positive outcomes and liked characters experience negative outcomes.
Offshoots of this original theory (1972) were Zillmann and Cantor’s (1976) disposition theory of mirth or drama and Zillmann, Bryant, and Sapolsky’s (1989) disposition of sport spectatorship. Researchers of entertainment media have since applied the overall concept of the original disposition theory to enjoyment of fright-inducing entertainment (Hoffner & Cantor, 1991; Oliver, 1993), action films (King, 2000), reality-based programming (Oliver, 1996), crime-based fiction (Raney & Bryant, 2002), and news programming (Zillmann, Taylor, & Lewis, 1998). Raney states (2006a) that differences between media categories have dictated subtle differences in application of the theoretical attributes implied by the original theorist. However, review of the current literature illustrates that the process through which a media consumer experiences enjoyment through dispositional affiliations and emotions towards characters in narratives has been used to explore enjoyment through entertainment in media categories ranging from drama, tragedy and violence to comedy and sport (Raney, 2006a). Raney (2006), discusses six principles and features that are common across all media content in regard to various expressions of the disposition theory:

1. "Disposition-based theories are concerned with the enjoyment or appreciation of media content." (pg. 144)
2. "Disposition-based theories are concerned with emotional responses to media content." (pg. 145)
3. "Disposition-based theories contend that media enjoyment starts with and is driven by the viewer's feelings about the character." (pg. 145)
4. "Disposition-based theories contend that affiliations towards characters are formed and maintained on a continuum from extreme positive through indifference to extreme negative affect." (pg. 146)
5. "Because disposition-based theories rely upon the evaluation of conflict, outcomes between characters, justice considerations are a necessary component of the theories." (pg. 147)

6. "Disposition-based theories further acknowledge and rely upon the differences between individuals in terms of emotional responsiveness, personal experiences, basal morality, and countless other psychological and social-psychological factors." (pg. 147)

The principles and features identified by Raney (2006a) offer a justification for the application of disposition-based theories across a multitude of entertainment mediums. Each principle that is described is a key concept of each theoretical offshoot of the original theory of disposition. The principles are formed around the key concepts of enjoyment of entertainment media and emotional responses evoked by the viewer. The fluid nature of the disposition theories has allowed researchers to explore multiple areas of entertainment media content; however, this characteristic does not necessarily strengthen the theories. Raney (2004) states that the subtle differences needed in the application of the key tenants of the disposition theories across multiple media weakens the ability of researchers to develop a more general disposition theory. This in no way discredits the theoretical offshoots of the original disposition theory of humor, but rather gives researchers the ability to tailor the theory to more specific fields of study.

To date the various psychological processes and factors involved in the enjoyment of entertainment media include empathy and numerous attitudes influencing moral judgment (Raney, 2006a). Although these processes have been identified, Raney states that this is a complex field of study and other processes and factors are yet to be recognized. The exploration of disposition-based theories and factors that affect enjoyment of entertainment media is an ever-growing field of study, and research (Raney, 2006a) has shown that additional user inputs may
be associated with disposition formation and maintenance. Raney has also noted that due to the fact that enjoyment is experienced as a psychological phenomenon, it seems reasonable to believe that each entertainment experience influences in some way all future entertainment experiences.

**Disposition Theory of Sport Spectatorship:**

Although many of the original concepts of disposition theories apply directly to the field of sports, the breakdown of the overarching model of the theory of disposition does not apply equally to each subordinate theory in differing fields of study. Fields such as drama, humor, tragedy, and sport have been explored through the use of the disposition theories with minimal differentiation to the original theory. As mentioned above, the disposition theory of sport spectatorship, just as any other variation of the disposition-based theories must take into account certain variables in order to be tailored to fit a certain genre of entertainment media. The disposition theory of sport spectatorship must take into account fan socialization, team allegiances, entertainment motivations, and multiple other potentially influencing factors (Raney, 2006). The basic principle of the original disposition theory crosses over into the realm of sports by stating that the overall enjoyment of the sport entertainment is a reflection of the spectator’s disposition toward the teams or players competing and the results of outcome of the event. According to research by Raney (2006), the excitement that comes with an “expectation of experiencing enjoyment” is the greatest reason attributed to consumers viewing of sporting events. This idea that not only do pre-conceived expectations play a role, but also that enjoyment of the spectator fluctuates with the winning or losing of their favored team is only complicated by the fact that these factors must be measured against a continuum of dislike for the opposing
team. Raney also noted examples of factors that have been added to analysis of mediated sport entertainment as being sport fanship, and the nature of the sport being viewed. Research in this area indicates that sports fanship in general is important to enjoyment of sports media (Gantz & Wenner, 1991, 1995). Gantz & Wenner (1991, 1995) found that exposure to media and motivations for viewing sports media indicate that fanship in relation to the particular sport impacts the way that the audience views a particular competition. Therefore, the argument can be made that a spectator’s level of dispositional affiliation toward the sport might also impact perceived suspense and enjoyment. Raney and Depalma (2006) also noted that the nature of the sport being view, either scripted or unscripted, cause viewers to approach the sporting event with differing expectations of enjoyment. The uncertainty of outcomes for contests that are unscripted when combined with multiple other factors such as rivalry strength and importance of the game to the overall ranking of the team affect the suspense and enjoyment of viewing each competition. Raney’s findings (2006) have shown that there are a myriad of factors that must be measured, each of which are measured on individual continuums, to discover the true reasoning behind enjoyment in viewing mediated sport. The concepts of the traditional affective disposition theory have also been applied to sports media consumption by considering the fact that enjoyment could be conceived as the emotional response to consuming media surrounding players or teams. The exploration of enjoyment of sport spectatorship is very complex and must also take into account fan socialization and disposition formation. Research on fan socialization investigates how people are originally socialized as sports fans, and also examines the reasons why people form allegiances towards specific teams. Raney (2006) states that these allegiances and types of socializations are at the core of the entertainment motivation for viewing sports media.
As previously mentioned, researchers and theorists (Bryant & Raney, 2000; Zillmann, Bryant & Sapolsky, 1989; Zillmann & Paulus, 1993) have found the disposition theory of sports spectatorship to state that a viewer’s affiliation or allegiance to a particular team or player must also be discussed along a continuum. This continuum ranges from extremely positive through indifference to extremely negative. Raney (2006) posits that the enjoyment of viewing a sporting event comes as a by-product of a combination of the outcome of the game, and the viewers strength and valence of dispositions held toward the competitors. Extended exposure to the competitors allows individual viewers to develop these dispositions of fluctuating valence and degree toward teams and athletes.

The complexity of the spectator’s disposition in regard to sport viewing is a field of research that is being advanced by the maturation of the current theoretical framework. As the current theory matures and advances, more complex factors are being added to the equation of what may or may not potentially play a key role in the process of reaching a measurable level of enjoyment. However, when considering the complexity of this field of research, it is still possible to imagine that the multiple factors affecting the dispositions of the viewers can still fall within the framework of the original model as used with the previous versions of the disposition-based theories. The enjoyment of the spectator will still be found to increase the more the winning team is favored and the more the losing team is disliked; however, the ways in which these dispositions are formed may differ among individual viewers. Considering this fact, the maximum enjoyment of the spectator should still be found when the intensely liked team or player defeats the intensely disliked team or player.

Based on the previously discussed theoretical literature, the first three research questions are posed to assist researchers and practitioners in determining the effects of both positive and
negative dispositional affects, as well as the role of perceived level of rivalry on overall enjoyment of the consumption of mediated sporting violence:

H 1: Highly identified fans of home team will receive greater enjoyment when the home team delivers violent hits than when the home team receives violent hits.

RQ 1: To what extent will disposition toward “home team” affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

H 2: Viewer’s disposition toward opponent will have an inverse relationship with their perception of violence.

RQ 2: To what extent will disposition toward opponent affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

H 3: Viewer’s perception of rivalry will be positively associated with their perception of violence.

RQ 3: To what extent will perceived level of rivalry affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

Understanding the importance of dispositional affects on enjoyment of mediated sport, the researcher will explore the effect of both positive and negative spectator dispositions in the overall enjoyment of mediated sporting violence. Raney and Depalma (2006) note that suspense is a major factor in the enjoyment of mediated sport, and that perceived level of rivalry is a key variable in the suspense associated with each game. By exploring the perceived level of rivalry
the researcher will be afforded a more holistic perspective of the enjoyment level of each participant.

**Enjoyment of Mediated Sport:**

Sports enjoyment is an area of academic exploration that evolved out of the field of entertainment research. Although the literature surrounding the enjoyment of mediated entertainment is expansive, researchers have yet to define clearly the concept of media enjoyment (Green, Brock, & Kaufman, 2004; Nabi & Kremar, 2004; Raney, 2003). Modern research surrounding this topic has defined the enjoyment of mediated entertainment as an experience (Nabi & Kremar, 2004; Vorderer, 2001; Zillmann, 2003) and even as a response to an experience (Miron, 2003; Oliver, 2003; Raney, 2004; Zillmann, 2000).

In the realm of sport entertainment research, emotional responses to sporting events and plays have been explored as indicators of enjoyment. Mehrabian (1972) found that levels of pleasure or arousal can be tested accurately by the use of self-reporting techniques measuring indicators identified as positive or negative. Previous research in the field of sport entertainment enjoyment (Raney & Bryant, 2002; Raney & Kinnally, 2009) has used measures such as “how enjoyable”, “how exciting”, and “how interesting” to assess the level of emotional responses to sporting events and plays.

For the purposes of this study, the researcher has opted to use a definition offered by Arthur Raney (2003a), a respected researcher in the field of sport entertainment and disposition-based literature, when he defines enjoyment as pleasure experienced through the consumption of mediated sport entertainment. Raney also points out that entertainment and enjoyment are multidimensional concepts that can be experienced differently by different genres. Previous
research in the field of sport media has found that spectator motivations to consume mediated sporting events can be categorized as emotional, cognitive, behavioral, or social (Raney, 2006). Emotional motivations include reasons for watching such as arousal seeking, excitement, and even escapism on the part of the spectator. Cognitive motivations for consuming mediated sport include reasons such as the desire to learn about players, teams, strategy, or even the rules of the game. This category also includes motivations such as the desire of the spectator to find artistic beauty in sport movements. Behavioral and social motivations for consuming mediated sport include the desire of the spectator to seek companionship, classify themselves with other like-minded individuals by forming “in-group” relationships, and spending time with family.

Previous research has found that a multitude of factors can contribute to the level of enjoyment experienced by a spectator during the process of consuming mediated sport entertainment (Denham, 2004; Raney, 2006). Some of the most thoroughly researched factors that can contribute to the enjoyment of mediated sport are: viewer disposition, sport violence, drama or suspense, gender of viewer, fandom, and commentary by announcers.

One of the most cited theories used to explore the enjoyment of mediated sport and the theoretical perspective used throughout this study, the disposition theory of sport spectatorship (Bryant & Raney, 2000; Zillmann, Bryant & Sapolsky, 1989) makes the claim that enjoyment of mediated sport is primarily a function of the individual spectator’s dispositions toward the competitors and the outcome of the contest. DTSS States that the enjoyment of the viewer will increase the more the winning team is liked and the losing team is disliked.

The attraction to violence in sport is an area of mediated sport entertainment research that has been thoroughly explored (Bryant, Commisky, & Zillmann, 1981; Peterson & Raney, 2008; Raney & Depalma, 2006). The overwhelming consensus of the previous research states that the
enjoyment level of the viewer increases as the level of violence increases. This trend has been found to be generalizable across both males and females; however, the relationship was stronger for male viewers. Oliver (2000) noted that the violence inherent in certain sports such as football, boxing and hockey increased the perception of the overall suspense and drama of the sporting event and therefore increased the level of spectator enjoyment. Recent research has shown that not only is violence in sport enjoyable, but that despite vocal concerns viewers are, “complicit in the violence” by their continued consumption of mediated sport (McDonnell, 2010, p. 15). Whether through mediated spectatorship or viewing in person, viewers have gathered for centuries as active spectators to watch violence take place on the field of organized athletics (Guttmann, 1998). To answer the question of why violence in sport is enjoyable, one must look at the thoroughly researched theoretical institutions linking sport violence with enjoyment. As previously noted, Bryant and Zillmann (1983) found that both conflict and competition are vital components to the enjoyment of drama. Bryant and Raney (2000) stated that violent and aggressive play serve as direct indicators for level of conflict and competition. Therefore, if violence and aggression impact the perceived level of conflict and competition, then it is reasonable to understand that violence directly impacts the level of enjoyment in sporting media. Zuckerman’s (1988) ideas on sensation seeking also play a role in the enjoyment of violence in sport. The properties presented by Zuckerman state that humans have an intrinsic need for witnessing acts of aggression. This need for witnessing acts of aggression is amplified by the mundane and routine life that is lead by viewers in an industrialized society, and the realm of sport offers a safe outlet for viewing such acts (Elias & Dunning, 2008). Another factor that differentiates the enjoyment of sporting violence from simply the act of “paying attention to” or “being interested in” is the potential for sport violence to excite or arouse. Theories of media
selection are grounded in this fact. Zillmann’s (1988) mood management theory states that viewers consume content to achieve an affective state. Raney (2006) found that the ability of sport violence to excite is a key factor in sport spectator enjoyment because fans often consume sport media to become energized or aroused. Research surrounding sport violence and mood management dates back decades. For example, Bryant and Zillmann (1984, p.7) used “action packed” sports to test the mood management theory as a form of affect regulation for participants who indicated that they were in a bored state. The theory used in this particular study, the disposition theory of sport spectatorship, plays a direct role in explaining how sport violence can increase spectator enjoyment. Zillmann (1998) used the term “empathetic distress” to explain the arousal that is produced when sporting violence is combined with viewers dispositions toward teams or athletes. Empathetic distress occurs when arousal caused by violence affects suspense throughout the course of a competition. The end result of this combination of arousal and suspense is either euphoria or dysphoria dependent upon the result of the game and the consumer’s dispositions toward either the winning or losing team. According to the findings of past researchers, sporting violence does not only facilitate enjoyment, but also amplifies the amount of enjoyment through its ability to stimulate and amplify the level of conflict and competition.

Gan, Tuggle, Mitrook, Coussement, & Zillmann (1997) explored the effects of uncertainty or suspense in the outcome of the game on the enjoyment of subjects. The researchers examined the level of enjoyment of the spectators by asking the study participants to watch one of the eight NCAA college basketball tournament games and rate their level of enjoyment. The researchers associated the level of suspense with the closeness of the final score, and found that enjoyment increased as the level of suspense increased. Disposition has also been
found to be a necessary component in the study of suspense. Vorderer & Knobloch (2000) noted that for suspense to occur, the viewer must have a positive disposition toward one character or competitor and a negative disposition toward another to form a measurable emotional reaction.

As one of the major features in mediated sport entertainment, commentary has been found to have the ability to shape the viewer’s perception of the level of excitement and overall enjoyment (Bryant & Holt, 2006; Comisky, Bryant, & Zillmann, 1977; Sullivan, 2006). Past research has found that the level of perceived intensity in the competition can occur even before the game begins by the types of stories that are portrayed by the commentators. Often times, commentators build narratives to increase intensity such as two players past relationship as either friend or foe, the past ability of a player or team to overcome an obstacle, or even the arrival of a new coach. Researchers (Bryant, Brown, Comisky, & Zillmann, 1982) found that commentary can also have an effect on the level of perceived suspense incurred by the viewer that leads to increased levels of enjoyment. To control for this variable in the present study, the researcher has not included any commentary in the stimuli embedded within the survey.

Gender differences have also been well researched throughout the sport entertainment enjoyment literature (Gantz & Wenner, 1991; Dietz-Uhler, Harrick, End, & Jacquemotte, 2000; Sargent, Zillmann, & Weaver, 1998). One previous study by Gantz and Wenner (1991) found that female sport fans often consumed sporting events for social reasons and for companionship. Sargent, Zillmann, & Weaver (1998) examined the differences in enjoyment of mediated sport based on the type of action portrayed and found that men are more likely to enjoy combatant sports while women find more enjoyment through sports with a stylistic nature. These researchers found that men found the greatest enjoyment when consuming sports that had high levels of violence and activity, while women found the greatest levels of enjoyment when
consuming sports that were viewed as having higher levels of elegance and style. Researchers (Cashmore, 2000; Lalvani, 1994) have made note that the overarching factor controlling the level of enjoyment in both men and women is how the individual interprets the action on the field. Both Cashmore (2000) and Lalvani (1994) have found that sport entertainment consumers filter the on-the-field play through their personal view of social norms, socialization and personal identity.

Lastly, general sport fandom is a variable that has also been researched in relation to spectator enjoyment. Gantz and Wenner (1991, 1995) have stated that fanship in general is a variable that is critically important to the enjoyment of mediated sport entertainment. These researchers noted that a viewers fanship in general not only creates motivation for viewing a particular sport, but also impacts most of the other variables involved in viewing a particular sport. Individuals who self-identify as sport fans have been found to report a higher level of enjoyment and nervousness from viewing mediated sports than individuals that do not self-identify as sport fans (Wenner & Gantz, 1998). Fanship is a variable that can be used to create a baseline for other mediated sport enjoyment variables because research has shown that levels of general sport fanship have a positive correlation with the enjoyment found through the consumption of sport media.

**Moral Judgment in Media:**

Viewer morality and its connection to enjoyment of entertainment media are areas of research that has been explored thoroughly by communications researchers over the past few decades. Raney (2011) notes that areas of disposition-based research include the role of subjective viewer morality (Oliver, 1996; Raney, 2002, 2005; Raney & Bryant, 2002; Zillmann
& Bryant, 1975) as being a major contributor in media genre selection and enjoyment. Raney (2011) also notes that the importance of moral evaluation of characters (Raney, 2006; Zillmann & Cantor, 1976) and the disengagement of moral concern (Hartmann & Vorderer, 2010; Klimmt, Schmid, Nosper, Hartmann, & Vorderer, 2006; Raney, 2004; Shafer, 2009) are also areas of research that have played a major role in the exploration of the effects of a viewers moral judgment. Although the field of research in this area is advancing, Raney (2011) states that it has failed to completely explain the complexities found in the relationship between morality and emotions within entertainment media.

For the purposes of this study, the researcher has chosen to use an offshoot of the original disposition theory because it is a theory in the field of communication that is used to specifically analyze the connection of morality and emotion in relation to enjoyment of entertainment media. As previously explained the disposition-based theories are centered on the fact that viewers enjoy certain media content in direct relation to their emotional connection with certain characters (Zillmann & Cantor, 1976). These emotional connections described by Raney (2006), Zillmann and Cantor (1976) are described as being an outcome of the moral judgment (by the viewer) of the characters in the narrative. Haidt (2001, 2007) found that outside of the world of entertainment media, individual’s sensibility or intuition naturally guides the individual to show partiality to other individuals with whom they share values, beliefs and morals. Disposition-based theories hold to this same idea that when this naturally occurring phenomenon is transferred into individual’s entertainment media viewing that the consumer will naturally find the most enjoyment in characters (or specifically for this study, athletes and teams) who share similar morally acceptable behaviors. Zillmann’s research (2000) backs up this way of thinking when he states that viewer’s favor is determined by an introspective evaluation and judgment of
character behavior. The relationship between this moral judgment by the viewer and likability of the characters in question is complex. This complexity is only intensified in regard to sport entertainment due to heavily researched factors such as spectator disposition, general sport fanship, and fan identification.

A more recent and particularly important factor affecting spectator disposition in sport in regard to player/team deviance is the idea of the antihero. Lott (1997) defines the antihero as a protagonist that exemplifies the qualities of both the hero and the villain. This character is seen as acting in morally ambiguous and unjustifiable ways to reach positive goals (Lott, 1997). For the sport spectator, this antihero represents a player on a team that for example uses performance-enhancing drugs to improve his or her performance and to help his or her team win. Shafer and Raney (2012) explain that despite acting in clearly unethical ways, these characters can still be perceived as forces of good. The concept of an antihero at first glance seems to go against the original concept of viewer’s moral judgments used to form positive or negative dispositions; however, Shafer and Raney (2012) explain that because the antihero acts as the protagonist seeking to overcome an enemy or villain, that this concept fits well within the original tenants of the disposition-based theories. The antihero narrative in sport has not been thoroughly explored, however it is the researchers opinion that it could play a role in the enjoyment of a spectator due to the strong emotional ties that fans tend to build with favored players and teams. For example, the theory of the anti-hero in sport would suggest that even though a favored player commits an extremely violent and illegal hit on a disliked player, the enjoyment of the spectator could still increase. This increase in enjoyment would be explained as the spectator viewing the action of the favored player as helping the home team reach the goal of winning even though the player is acting in unethical ways. In this instance, the goal of winning
would be a stronger factor in the overall enjoyment process than the moral judgment of the spectator.

**Fan Identification:**

The industry of sport entertainment media is continually growing and is backed by considerable contributions of time and money from individual fans (Michener, 1976). Sport identification is a major piece to the enjoyment equation when looking at sport entertainment media because research has shown that sport fans do not simply view themselves as spectators, but rather as active participants in the game itself (Novak, 1976). Research exploring the relationship between fan identity, character connections and sport entertainment enjoyment is a well researched field that has analyzed fan’s increase in heart rate before and during a mediated game (Corbin, 1973), pregame preparations by fans (Sloan, 1979), and emotional stress responses similar to the athletes that the fans are watching. Fan identification is unlike character identification in other areas of entertainment media because as Schafer (1969) found, fans identify strongly with teams and athletes because the individual identifies with them as an extension of themselves. Other researchers including Schurr, Wittig, Ruble and Ellen (1987) have found that fans not only identify with the players and teams, but also tend to identify with the larger institution that encompasses the sports team such as the professional, minor or collegiate leagues. This bond that a fan feels enables them to identify with the athletes, team, institution as well as other fans of the same player or team (Wann & Branscombe, 1990). Wann (2006) noted that fans have an innate desire to feel a unity with other individuals. This desire meshes perfectly with the realm of sport to create these feelings of unity that Wann describes. Branscombe & Wann (1992) found that consuming sport media offers a way for individuals and
fans to have the opportunity to connect through something larger than themselves without the need to require special skills, advanced knowledge or institutional beliefs.

The ideals of fan identification are drawn largely from the founding concepts of the social identity theory (Tajfel, 1973; Tajfel & Turner, 1985). According to Hogg (2006), social identity theory is simply described as being interested in the formation of social groups based on how individuals view themselves. Researchers (Brown, Devlin, & Billings, 2012) have found that individuals often form social groups based on social activities, familial relationships or their professions. These social groups afford the individual the ability to classify themselves with other likeminded individuals very quickly, forming “in-group” and “out-group”. The sport arena offers a great opportunity for the formation of an instant “in-group” atmosphere for fans by grouping individuals wearing the team colors, cheering for one team over the other and knowing the team’s cheers. Wann and Grieve (2005) note that an individual’s feelings of being in the in-group helps to create an “us versus them” sensation and only strengthens the social identity found at sporting events. The social comparison theory has been found to show that an individual can strengthen their self-esteem by comparing their current situation to that of someone who is less fortunate than themselves. This can be translated to the sporting world by an individual comparing their team to another team that may not have as many wins in a season as their favored team. This idea is similar to that of the disposition theory of sport spectatorship in that a fan encounters the greatest level of enjoyment when their favored team wins and their rival team loses.

According to Wann (2006), fan identification theory posits that a fan’s level of psychological connection to the team and/or athlete and their performance has a direct relationship to the fan’s sport media consumption habits. Wann (2006) suggests that the
relationship that the fan/spectator has with the team or player is a useful independent variable not
only to explore potential supportive behaviors, but is also useful to explore spectator dispositions
toward teams or players. For example, fans that have a high degree of identity with a particular
team are more likely to attend sporting events and consume sports media that only strengthens
their personal dispositions toward teams and players (Kwon, Trail, & James, 2007). Fan
identification has been studied over a myriad of topics including sponsorships (Madrigal, 2000),
crisis communication, and media consumption (Murrell & Dietz, 1992). These studies have
explored fan identification over a variety of sports (e.g., football, baseball, basketball) to
determine how psychological connections of this extent are developed and how these
connections influence attitudes and behaviors. Raney (2006) found that the positive feelings
associated with identification toward a team with a high success rate correlates with an increase
in sport media consumption. The inverse of this is also true. Previous researchers (Cialdini,
Borden, Thorne, Walker, Freeman, & Sloan, 1976) found that fans of winning teams often
experience what has become know as “basking in reflective glory” (BIRG). BIRGing refers to
the increase in pride and self-confidence that an individual feels that is directly connected to the
success of their favored team. In the situation where a fan’s favored team is not successful, the
individual fan can experience what is known by researchers as “cutting off reflected failure”
(CORF) (Cialdini & Richardson, 1980). CORFing refers to the distance that fans often put
between themselves and their favored team to hinder damage to one’s self-esteem in connection
with an unsuccessful team. It is obvious when discussing BIRGing and CORFing that fan’s level
of identification can play a great role in not only how a fan feel about themselves, but also how a
fan reacts to their favored team during times of loss or crisis. Wann (2006) found that when
highly identified fans feel that their favored player or team is threatened by a crisis that the
player or team must be protected. This necessary belief by the fan that they must help to protect their favored player or team only solidifies the fact that if a favored player is in a law suit with the league itself that the fan will side with the favored player and the league will instantaneously become a member of the out-group.

Multiple scales have been used to explore fan identification, but for this particular study, the researcher has chosen to adapt two scales that have been found to be reliable for measuring fan identity. The first of the two scales that the researcher will be using is the Sport Spectator Information Scale (SSIS) developed by Wann and Branscombe (1993). The second scale will be the Psychological Commitment to Team Scale (PCT), developed by Mahony, Madrigal, and Howard (2000). SSIS uses a seven-item Likert scale assessing individual identification with a sports team, while PCT employs a 14-item, seven-point Likert scale assessing the loyalty of sport consumers. Wann and Pierce (2003) found that using both scales created a reliable measure for fan identity due to their ability to predict fan behaviors and measure an individual’s identity to a team or athlete.

Based on the previously discussed literature, research questions four and five are posed. To assist the researcher in determining a baseline for enjoyment levels associated with the consumption of mediated sport, it is important for to explore each participants general level of sport fanship. After determining the general sport fanship level of each participant, the researcher can assess the positive or negative effect of fan identification on the overall enjoyment of the consumption of mediated sporting violence:

RQ 4: To what extent will general sport fanship affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?
RQ 5: To what extent will fan (or spectator) identification affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

Understanding the importance of general sport fanship in sport media enjoyment, the researcher will be afforded the opportunity to explore the level of perceived violence in spectators that range from low to high levels of sport fanship. After the researcher analyses the varying levels of enjoyment of violence in mediated sport in accordance with each participant’s general level of sport fanship, the researcher will then be able to investigate the affect that fan identification has on the level of perceived violence and overall enjoyment of consuming mediated sport violence.

**Sport and Violence:**

Previous research (Bryant, Rockwell & Owens, 1994) found that suspense is a powerful predictor of enjoyment. This feeling of suspense has been defined as the feeling of uncertainty of outcomes and is cultivated throughout the course of a game in anticipation of those outcomes (Vorderer & Knoblock, 2000). In regard to studies on entertainment, it is necessary for the media consumer to have dispositions toward characters or players in order to gain the feelings of suspense. When looking specifically at this feeling of suspense, entertainment researchers have historically analyzed the anticipations of winning or losing; however, with the knowledge of CTE and increased awareness of injuries associated with concussive and subconcussive blows to the head, this study intends to show that this feeling of suspense can also be associated with the continual wellbeing of players. If a consumer has positive dispositions toward a sport, or athletes
in a certain sport, it may be possible for the feelings of suspense to increase throughout a game, or season as “big hits” or sport violence continue to increase toward their favored player.

The field of sport violence research is a line of research that stems from the field of media violence. Raney and Depalma (2006) note that the field of media violence research has been substantiated through decades of some of the most rigorous and methodologically sophisticated research in the field of communication. Although this field of study is very extensive, researchers (Raney, & Depalma, 2006) note that the level of sophistication associated with the field as a whole has not found its way to the study of sport violence. Zhou, Xu, and Ye (2013) state that violence is a key factor in the consumer’s overall enjoyment level of mediated sport entertainment. Historically, communication scholars have viewed sport violence through the lens of the viewer’s gender (Bryant, Comisky & Zillmann, 1981), the viewer’s personality (Raney, 2003; Westerman & Tamborini, 2010), and the nature of the sport as either scripted or unscripted (Raney & Depalma, 2006). One hurdle that communication scholars face when looking at sport violence is the fact that previous studies have failed to provide a clear definition to the terms violence and aggression (for a comprehensive summary, see Raney & Kinnally, 2009). Of the previous definitions noted throughout literature, some are as loosely defined as “roughness” (Zillmann, Bryant & Sapolsky, 1989, p. 268) while some have been broken down into much more critical terms ranging from brutal body contact to criminal violence (Smith, 1983). Although many scholars have concocted various definitions and levels of violence, all of the terms have fallen short to providing a comprehensive definition and range of sporting violence (Coakley, 2001; Young, 2000). For the purpose of this study, violence will be understood through the operationalization provided by the National Coalition on Television when they stated that violence in sport media is, “hostile and intentional acts of one person
against another through physical force” (“NCTV says,” 1981, p. 63), with hostility being understood as the competition between two opposing sides in the sport (Raney & Depalma, 2006). Due to the fact that this study explores violence as it is perceived by the spectator, the researcher will follow the example of Raney and Kinnally (2009) who noted that perceived violence should be viewed as the way spectators perceive the action on-the-field (e.g., Bryant, 1989; Raney & Depalma, 2006). Although previous researchers (Young, 2000) noted, “the concept of sports violence is elusive” (p. 382), the researcher feels justified in using the term “perceived violence” for this study. Using the perceived violence approach fits best with the current study because the researcher intends to look at the perceptions of sport spectators and how those perceptions may have changed over time.

Much like the current study, Raney and Kinnally (2009) analyzed spectator’s perceptions of violence in sport and compared those against the enjoyment that the spectator found through consuming sport media. One of Raney and Kinnally’s main findings (2009) supported previous literature (Bryant, Brown, Comisky & Zillmann, 1982) in stating that perception levels of violence are positively associated with greater spectator enjoyment. Increased enjoyment has not only been associated with individual games that have been perceived to be more violent, but has also been associated with more violent sports such as football and boxing (Raney & Depalma, 2006). Raney and Depalma (2006) found through experimental measures that the trend of increased enjoyment through the consumption of violent sport clips was a generalizable factor, however it was heightened for male participants and participants that self reported as sport fans. These findings confirmed previous research by Bryant, Comisky, and Zillmann (1981) who found through the use of experimental measures that enjoyment increases as the degree of violence increases. Bryant, Comisky, and Zillmann (1981) also noted that although this finding
was generalizable, the relationship was stronger for the male subjects in their experiments than it was for the female subjects.

One key differentiation that should be made in research on perceived violence in sport in the future is that a large portion of the seminal sport violence entertainment research (Bryant, Brown, Comisky & Zillmann, 1982; Raney & Kinnally, 2009), were conducted prior to April, 2011. This date is important in sport violence entertainment research, because it marks the beginning of the federal NFL concussion litigation. In April of 2011, a lawsuit was filed against the NFL on behalf of five NFL players, which opened the door for subsequent lawsuits by more than 4,500 former and present NFL players who have suffered repeated concussive and subconcussive blows to the head. As previously stated, this litigation has caught the attention of media outlets of every shape and size, and has brought with it an awareness of the potential long-term injuries associated with sports such as football (Burke, 2013). Previous to this date, long-term neurologic consequences were not necessarily something that spectators associated with big hits. As mentioned above, sport violence and sports that are associated with violence and aggression have been found to be more exciting and therefore more enjoyable, however with the inclusion of this knowledge, the levels of aggression or violence may not equate to the same levels of enjoyment as were previously thought.

Knowledge and Experience:

According to Zhou, Xu, and Ye (2013), knowledge of the game and experience with the game are two factors that contribute to enjoyment of sport entertainment media that have not been thoroughly discussed in previous research. Spectators viewing a game can have differing interpretations of the events unfolding on the field of play depending on their current level of
knowledge and experience with the game and surrounding conditions. Previous research (Cashmore, 2000; Lalvani, 1994) has substantiated this fact by proving that a crucial part of the enjoyment process that comes from mediated sport is through the ways that the spectator filters the game through the lens of socialization, social norms and personal identity. Just as someone who has had no experience with a particular sport will filter the game through a different lens than someone who has watched the sport various times, a person who has played the sport may filter the game through a different lens than someone who has only consumed the sport through mediated outlets. Kretchmar (1994) and Hoffman (2009) explained that the level of knowledge that a spectator has with a particular game directly influences the level of enjoyment that is found through viewing the game. According to Zhou, Xu, and Ye (2013), knowledge includes “knowing the game, the rules of the game, strategies, and competitive tactics” (p.177). This list of factors is not conclusive because it does not take into account all aspects of having a complete knowledge of the game. In the case of football, hockey, boxing and other highly violent sports, knowledge of a game also includes knowing and being aware of the potential for long-term injury.

Raney and Kinnally (2009) define the idea of knowledge and experience through the perspective of the schema theory. The schema theory states that through media exposure, individuals are able to form knowledge frameworks where the individual can organize content specific information. In the case of entertainment media, framework or schemas are formed through the repetition of media exposure that leads to an increase in memory on content-specific facts, players, teams and events (Raney & Kinnally, 2009). Through these schemas, the spectator views and builds on all future exposure to sport specific content. According to Raney and Kinnally (2009) the schemas that are used to help spectators view similar entertainment media
are constantly maturing and evolving to interpret new information. This theory posits that those with more well developed schematic structures receive greater enjoyment, while those with less developed schematic structures have and increased cognitive and affective discomfort leading to a lower levels of enjoyment.

Although the schematic structures described by Raney and Kinnally (2009) were found to provide viewers with a greater amount of enjoyment as the spectator’s schemas matured, this does not take into account the ways that the schemas develop when negative information is introduced. For example, if an individual is an active consumer of aggressive or violent mediated sport and is continually gaining knowledge (building schemas) through various outlets that long-term neurologic consequences have been validated in athletes that sustain repeated concussive and subconcussive blows to the head, enjoyment should decrease as hard blows to the head occur. This fact should be evident considering the effects of spectator dispositions. Positive spectator disposition toward an athlete or team assumes that the spectator would receive less enjoyment if the favored athlete or member of the favored team in question is harmed, or has the potential to be harmed long-term.

As previously stated, the continuous flood of mediated sporting news offers a unique risk for a crisis of entertainment for the NFL. Previous sport entertainment literature offers insight into multiple variables affecting enjoyment, however no study directly examines the extent that knowledge of CTE and perceived levels of violence affect enjoyment following the 2011 litigation between the NFL and past and current NFL players. Because of the lack of previous research on entertainment media crisis, and particularly sport media in regard to the recent influx in knowledge of CTE, this study intends to test the enjoyment level of spectators who have positive dispositions towards players or teams, and differing levels of knowledge and schemas
regarding CTE to see if a shift in past sport violence and enjoyment paradigms may be occurring. If a shift has occurred in the future research of sport violence and enjoyment, this may set the stage for a crisis of entertainment enjoyment for leagues like the NFL in the years to come.

Based on the previously discussed literature, research questions six and seven are posed. To assist the researcher in determining a baseline for the affect of media consumption on knowledge of CTE, it is important for to explore each participant’s general level of sport media consumption. After determining the general level of sport media consumption of each participant, the researcher can assess the positive or negative effect of knowledge of CTE on the overall enjoyment of the consumption of mediated sporting violence:

RQ 6: To what extent will media consumption rates affect knowledge of CTE?

RQ 7: To what extent will knowledge of CTE affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

Understanding the influence that media coverage can have on the perceptions of individuals, it is important to understand the level of sport media consumption of each participant. After analyzing consumption rates, the researcher will be afforded the opportunity to explore the level of knowledge of CTE and its direct affect on perceived violence and overall enjoyment of consuming mediated sport violence.
Research Questions:

H 1: Fans of home team will receive greater enjoyment when the home team delivers violent hits than when the home team receives violent hits.

RQ 1: To what extent will disposition toward “home team” affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

H 2: Viewer’s disposition toward opponent will have an inverse relationship with their perception of violence.

RQ 2: To what extent will disposition toward opponent affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

H 3: Viewer’s perception of rivalry will be positively associated with their perception of violence.

RQ 3: To what extent will perceived level of rivalry affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

RQ 4: To what extent will general sport fanship affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

RQ 5: To what extent will fan (or spectator) identification affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?

RQ 6: To what extent will media consumption rates affect knowledge of CTE?

RQ 7: To what extent will knowledge of CTE affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?
CHAPTER THREE

METHODOLOGY

The purpose of this dissertation was two fold: (A) To explore how the enjoyment of violent hits in mediated sport is affected by knowledge of CTE and perceived on-field violence, and (B) to draw implications on how a sport league’s response to a crisis affects the overall enjoyment and potential supportive behavior of its spectators. This chapter begins by discussing the methodology of the experimental design and is be followed by a description of the independent and dependent variables, the participant recruitment, the overall procedures and scales that were used during the study, and the efforts that have been put into place to ensure validity and reliability throughout the study. The researcher closes this chapter by describing in brief the statistical analysis that was performed on the collected data.

Study Design:

This dissertation aimed to explore one overarching question:

1. To what extent does knowledge and perceived on-field violence impact the enjoyment and perceptions of violent hits on mediated football games after the influx in attention toward long-term injuries?

To best answer this question the researcher used a single survey designed to test how the enjoyment of violent hits in mediated sport was affected by knowledge of long-term injuries and perceived on-field violence. The design of the study was a survey using items both prior to and following multiple stimuli. This type of study design has been previously used
in communication research (Brown, Dickhaus & Long, 2012; Callison, 2004; Coombs, 1998; Coombs, 2004; Coombs & Holladay, 1996; 2001; Lee, 2007). This particular study design allows participants to be exposed to various stimuli inserted into survey-style questionnaires. Using this type of experimental design affords the researcher the opportunity to use multiple stimuli embedded within a survey. Although the current study was based in media effects research, the findings drawn from the data had direct implications on the field of public relations in sport. It is important to the field of Public Relations research to use experimental-style designs going forward because this is the best way to test for predictive and causal relationships (Boynton & Dougall, 2006). According to Boynton and Dougall, (2006), only 6 percent of all articles published in the Journal of Public Relations Research and Public Relations Review have been found to use experimental methods.

Previous researchers (Abdi, Edelman, Valentin & Dowling, 2009; Wimmer & Dominick, 2006) have stated two factors that are critical to the success of experimental design. The first of these two factors is control. In a true experiment, researchers have control over not just the environment, but also the selection of variables, the setting where the study is administered, and the participant recruitment. Due to the fact that the current survey was be conducted online, the researcher lost some aspects of the control that are found in a true experiment. Conducting this type of study online does hinder the researcher’s control over which participants take part in each study; however, the online setting aids in eliminate the artificiality found in lab settings. By having the study online through the Qualtrics website, it allowed the participants to experience each condition and answer the related survey questions on their own time. Another benefit of note in having the study online was the ability of the researcher to recruit a large participant pool due to the fact that each participant was able to take part in the study in accordance with his or
her own schedule. Allowing the participants to take part in the study in their natural setting can also be of benefit and can increase external validity (Wimmer & Dominick, 2006).

To explore the variables in this study, a single within-subjects survey was created to independently explore how the enjoyment of violent hits in mediated sport was impacted by knowledge of long-term injuries and perceived on-field violence. The use of a survey that is based in media effects research, will allow the researcher to build a case for future research in the fields of sport enjoyment and sport enjoyment crisis communication.

The present study began by allowing each participant to fill out a pretest questionnaire that asked questions regarding the participant’s sport media literacy, fandom, knowledge of injuries associated with the sport, and time spent consuming sport entertainment media. The questions in the pretest built a base for general sports interest, team/player identification, previous knowledge of CTE, and sport media literacy. Following the pretest, each participant viewed the full collection of 16 individual football plays ranging from 7 seconds to 11 seconds in length, and ranked each play for perceived levels of violence (High, Low), enjoyment (High, Low), disposition toward opposing team, and perceived level of rivalry.

Each of the 16 video clips was categorized into one of four groups (UA hits rival, rival hits UA, UA hits neutral, and neutral hits UA) containing unique levels of violence. During the 2014 NCAA collegiate football season, data was collected that served as a rivalry rating for each team that played the home team. Three levels of rivalry were developed that encompassed the rivalry level of each competitor throughout the season: 1) High, 2) Moderate, and 3) Low. To analyze the impact of rivalry level on enjoyment, two teams were then chosen. The first team that was chosen was Auburn due to their rank as the greatest rivalry among the competitors of the 2014 season. The second team that was chosen for analysis was Southern Mississippi.
Southern Mississippi fell in the group of teams who posed the lowest level of rivalry while still offering individual plays that would fit into each violence category. Therefore, Auburn would be analyzed as through the perspective of “rival” and Southern Miss would serve as the team to depict the category of “neutral” or low rivalry opponent. The two teams were chosen due to their rivalry ranking taken from a survey distributed to students at the home team school, with one ranking in the highest level of rivalry, and one in the lowest level of rivalry associated with the home team.

Violence was manipulated on four different levels: 1) Not Violent, 2) Intermediate Levels of violence, 3) Violent without head-to-head impact, and 4) Violent with head-to-head impact. The plays selected will be edited to present visual action only and did not include commentary to control for commentator-triggered excitement. Table 3.1 showcases the video clips that each participant watched.

### Table 3.1
**Video Manipulation List**

| Rival: Bama hits Rival | 1) Not Violent:  
|                        | 2) Intermediate Levels of violence  
|                        | 3) Violent without head-to-head impact  
|                        | 4) Violent with head-to-head impact  
| Rival: Rival hits Bama | 1) Not Violent:  
|                        | 2) Intermediate Levels of violence  
|                        | 3) Violent without head-to-head impact  
|                        | 4) Violent with head-to-head impact  
| Neutral: Bama hits Neutral | 1) Not Violent:  
|                          | 2) Intermediate Levels of violence  
|                          | 3) Violent without head-to-head impact  
|                          | 4) Violent with head-to-head impact  
| Neutral: Neutral hits Bama | 1) Not Violent:  
|                          | 2) Intermediate Levels of violence  
|                          | 3) Violent without head-to-head impact  
|                          | 4) Violent with head-to-head impact  

Independent Variables:

**IV #1: General Sports Fanship.** For the purposes of this study, general sport fanship was defined as the degree to which the spectator enjoys consuming sports. This variable helped to build a base of investigation where the researcher could compare those that enjoy watching sports and those that do not. The variable was measured by adapting seven items used in previous research (Arpan & Raney, 2003; Arpan, Raney, & Zivnuska, 2003; Raney & Depalma, 2006) measuring sports fanship. The seven-point scale ranged from 1 (not at all) to 7 (extremely). Table 3.2 showcases the items that were included on the questionnaire. General sport fanship was measured prior to watching the collection of plays.

Table: 3.2
*General Sport Fanship Scale: (Arpan & Raney, 2003; Arpan, Raney, & Zivnuska, 2003; Raney & Depalma, 2006)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>How interested are you in sports in general</td>
</tr>
<tr>
<td>2)</td>
<td>How interested are you in football</td>
</tr>
<tr>
<td>3)</td>
<td>How interested are you in basketball</td>
</tr>
<tr>
<td>4)</td>
<td>How interested are you in baseball</td>
</tr>
<tr>
<td>5)</td>
<td>How interested are you in reading sports magazines</td>
</tr>
<tr>
<td>6)</td>
<td>How interested are you in reading the sports page</td>
</tr>
<tr>
<td>7)</td>
<td>How interested are you in using the Internet to read about sports.</td>
</tr>
<tr>
<td>8)</td>
<td>How interested are you in watching sports on TV</td>
</tr>
</tbody>
</table>

**IV #2: Knowledge of CTE.** For the purposes of this paper, knowledge of CTE was defined as the spectator’s knowledge of the risks and long-term effects associated with action on the field. Spectator knowledge was measured by adopting three individual knowledge index scales used by previous researchers (Gurhan-Canli, 2003; Algesheimer, Dholakia, & Hermann, 2005; White, Newton, Makdissi, Sullivan, Davis, McCrory & Finch, 2014). The questions included in the scales specifically explored sport media consumption rates, football-playing/football-viewing history, and specific questions regarding knowledge of CTE and short
and long term effects of concussive and sub concussive blows to the head. For ease of understanding, the scale measuring sport media consumption was a multiple-choice format where participants chose the correct response for their personal lifestyle. Table 3.3 showcases the items representing sport media consumption that were included on the questionnaire. For consistency with the remainder of the scales, responses to the questions measuring knowledge were measured using a seven-point Likert-type scale ranging from 1 (strongly agree) to 7 (strongly disagree). The item responses were summed and divided for comparisons using a mean split representing high and low levels of knowledge. Table 3.4 and 3.5 showcases the items that were included on the questionnaire. Sport media consumption, football-playing/viewing history and knowledge of CTE was measured prior to watching the collection of plays.

### Table 3.3

**Sport media consumption rates:**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td></td>
</tr>
<tr>
<td>Viewing live sports</td>
<td></td>
</tr>
<tr>
<td>Using social media to follow team or consume info about team</td>
<td></td>
</tr>
<tr>
<td>Online: Computer</td>
<td></td>
</tr>
<tr>
<td>Online: Smartphone</td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td></td>
</tr>
<tr>
<td>Magazine</td>
<td></td>
</tr>
</tbody>
</table>
Table: 3.4  
Football-playing/viewing history: (Gurhan-Canli, 2003; Algesheimer, Dholakia, & Hermann, 2005).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>When compared to most people, I know about this sport.</td>
</tr>
<tr>
<td>2)</td>
<td>I consider myself experienced with this sport.</td>
</tr>
<tr>
<td>3)</td>
<td>I do not know about this sport (r)</td>
</tr>
<tr>
<td>4)</td>
<td>My knowledge of this sport is inferior (r)</td>
</tr>
<tr>
<td>5)</td>
<td>My knowledge of this sport is very good</td>
</tr>
<tr>
<td>6)</td>
<td>I have played this sport (Y/N)</td>
</tr>
</tbody>
</table>

Table: 3.5  
Knowledge of CTE: Causes and long-term effects: (White, Newton, Makdissi, Sullivan, Davis, McCrory & Finch, 2014).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>There is a higher risk of long-term problems if someone has a second concussion before recovering from the first one</td>
</tr>
<tr>
<td>2)</td>
<td>People who have had one concussion are more likely to have another concussion</td>
</tr>
<tr>
<td>3)</td>
<td>Symptoms of concussion can last for several weeks</td>
</tr>
<tr>
<td>4)</td>
<td>Symptoms of concussion are usually gone after 10–14 days</td>
</tr>
<tr>
<td>5)</td>
<td>Concussions can sometimes lead to emotional problems</td>
</tr>
<tr>
<td>6)</td>
<td>Younger players (under the age of 18) typically take longer to recover from a concussion than adults</td>
</tr>
<tr>
<td>7)</td>
<td>To be diagnosed with a concussion, you have to be knocked unconscious</td>
</tr>
<tr>
<td>8)</td>
<td>A concussion can only occur if there is a direct hit to the head</td>
</tr>
<tr>
<td>9)</td>
<td>After a concussion occurs, brain scans (e.g., CT scan, MRI) typically show damage (e.g., bruise, blood clot) to the brain</td>
</tr>
<tr>
<td>10)</td>
<td>There are few risks to long-term health and well being from multiple concussions</td>
</tr>
<tr>
<td>11)</td>
<td>Receiving concussions can lead to overall mental deterioration with Parkinsonian symptoms</td>
</tr>
<tr>
<td>12)</td>
<td>The long-term effects of concussions can lead to Chronic Traumatic Encephalopathy, also known as CTE</td>
</tr>
<tr>
<td>13)</td>
<td>I have heard of CTE through sports media outlets</td>
</tr>
</tbody>
</table>

IV #3: Spectator Disposition / Identification. For the purposes of this study, spectator disposition was defined as the Spectator’s positive or negative feelings toward a character or team. Wann (2006) suggests in previous research that fan/spectator identification is a useful independent variable to explore spectator dispositions toward teams or players, and potential supportive behaviors. For this study, the researcher chose to adapt two scales that have been found to be reliable for measuring fan identity. The two scales that the researcher used were the
Sport Spectator Information Scale (SSIS), developed by Wann and Branscombe (1993), and the Psychological Commitment to Team Scale (PCT), developed by Mahony, Madrigal, and Howard (2000). SSIS uses a seven-item Likert scale assessing individual identification with a sports team, while PCT employs a 14-item, seven-point Likert scale assessing the loyalty of sport consumers. Wann and Pierce (2003) found that using both scales created a reliable measure for fan identity due to their ability to predict fan behaviors and measure an individual’s identity to a team or athlete.

Similar to previous research (Wann & Branscombe, 1993), spectator identification toward the home team was measured using a seven-item, seven-point Likert scale with responses ranging from 1 (low fan identification) to 7 (high fan identification). As a result, responses were summed across all seven items, resulting in an overall fan identification index. Scores of 18 and below indicated low levels of fan identification, scores of 19 - 34 indicated moderate levels of identification, and scores of 35 and above indicated high levels of fan identification (Wann, Melnick, Russell, & Pease, 2001). Table 3.6 showcases the items that were included on the questionnaire. Questions regarding sport spectator identification were measured prior to watching the collection of plays.

Table: 3.6

<table>
<thead>
<tr>
<th>Sport Spectator Identification Scale: (Wann &amp; Branscombe, 1993)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) How important to you is it that the (team) wins?</td>
</tr>
<tr>
<td>2) How strongly do you see yourself as a fan of the (team)?</td>
</tr>
<tr>
<td>3) How strongly do your friends see you as a fan of the (team)?</td>
</tr>
<tr>
<td>4) During the season, how closely do you follow the (team) via any of the following: a) in person or television, b) radio, or c) television news or a newspaper</td>
</tr>
<tr>
<td>5) How important is being a fan of the (team) to you?</td>
</tr>
<tr>
<td>6) How much you dislike (your team’s) greatest rivals?</td>
</tr>
<tr>
<td>7) How often do you display the (your team’s) name or insignia at your place of work, where you live, or on your clothing?</td>
</tr>
</tbody>
</table>
Mahony, Madrigal, and Howard’s PCT (2000) measures the strength of an individual’s commitment to a sports player, team or league by defining commitment as a fan’s resistance to change regardless of their team’s success. The scale used a 14-item, seven-point Likert scale with responses ranging from 1 (strongly disagree) to 7 (strongly agree). The scale had several items that are to be reverse coded for negatively worded items. As a result, higher scores always represent greater psychological commitment to the team. Table 3.7 showcases the items that were included on the questionnaire. Questions regarding personal commitment to a team were measured prior to watching the collection of plays.

**Table: 3.7**

**Personal Commitment to a Team (PCT) Scale items: (Mahony, Madrigal, & Howard, 2000)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I might think my allegiance to my favorite athlete is they consistently perform poorly.</td>
</tr>
<tr>
<td>2</td>
<td>I would watch a game featuring my favorite (sport) team regardless of which team they are playing.</td>
</tr>
<tr>
<td>3</td>
<td>I would rethink my allegiance to my favorite team if management traded away its best players.</td>
</tr>
<tr>
<td>4</td>
<td>Being a fan of my favorite (sport) team is important to me.</td>
</tr>
<tr>
<td>5</td>
<td>Nothing could change my allegiance to my favorite (sport) team.</td>
</tr>
<tr>
<td>6</td>
<td>I am a committed fan of my favorite (sport) team.</td>
</tr>
<tr>
<td>7</td>
<td>It would not affect my loyalty to my favorite (sport) team if management hired a head coach that I disliked very much.</td>
</tr>
<tr>
<td>8</td>
<td>I could easily be persuaded to change my favorite (sport) team preference</td>
</tr>
<tr>
<td>9</td>
<td>I have been a fan of my favorite team since I began watching professional (sport).</td>
</tr>
<tr>
<td>10</td>
<td>I could never switch my loyalty from my favorite (sport) team even if my close friends were fans of another team.</td>
</tr>
<tr>
<td>11</td>
<td>It would be unlikely for me to change my allegiance from my current favorite (sport) team to another.</td>
</tr>
<tr>
<td>12</td>
<td>It would be difficult to change my beliefs about my favorite (sport) team</td>
</tr>
<tr>
<td>13</td>
<td>You can tell a lot about a person by their willingness to stick with a team that is not performing well.</td>
</tr>
<tr>
<td>14</td>
<td>My commitment to my favorite (sport) team would decrease if they were performing poorly and there appeared little chance their performance would change.</td>
</tr>
</tbody>
</table>

**IV #4: Perceived Violence.** For the purpose of this study, violence was understood through the operationalization provided by the National Coalition on Television when they stated
that violence in sport media is, “hostile and intentional acts of one person against another through physical force” (“NCTV says,” 1981, p.63), with hostility being understood as the competition between two opposing sides in the sport (Raney & Depalma, 2006). Due to the fact that this study explored violence as it was perceived by the spectator, the researcher will follow the example of Raney and Kinnally (2009) who noted that perceived violence should be viewed as the way spectators perceive the action on-the-field (e.g., Bryant, 1989; Raney & Depalma, 2006). Perceived violence was measured using a single item with a seven-point Likert-type scale measuring extremes from 1 (not at all) to 7 (extremely). The researcher adapted a scale used by Bryant, Brown, Comisky and Zillmann (1982), originally used to examine perceived conflict between combatants rather than perceived violence. More recently, researchers Raney and Depalma (2006) used the same adaptation given the violence inherent in football. This single-item measure, which has been found to be useful in a short survey format, encompasses violence and aggression that the participant perceives to have occurred within the play. Perceived violence was measured after the participant watched each play.

**Table: 3.8**

**Perceived Violence Scale Item: (Raney & Kinnally, 2009)**

| 1) How violent was this play |

**IV #5: Disposition toward Opposing Team (Study A).** For the purposes of this paper, spectator disposition was defined as the spectator’s positive or negative feelings toward a character or team (Raney & Kinnally, 2009). Disposition toward the opposing team was measured using a single item developed by Raney and Kinnally (2009). Table 3.9 showcases the scale item used for the study. Responses were measured using a seven-point Likert-type scale ranging from 1 (not at all) to 7 (extremely). Disposition toward opposing team(s) was measured after the participant watched each play.
IV #6: Perceived Level of Rivalry. For the purpose of this study, perceived level of rivalry was defined as the perceived degree of historic competition between the two teams (Raney & Kinnally, 2009). Level of rivalry was measured using a single item adapted from Raney and Kinnally (2009). Table 3.10 showcases the scale item used for the study. Responses were measured using a seven-point Likert-type scale ranging from 1 (no rivalry) to 7 (huge rivalry). Perceived level of rivalry was measured after each play.

Table 3.10
Perceived Level of Rivalry: (Raney & Kinnally, 2009)

| 1) In your mind, how big a rivalry does [home team] have with the [opposing team] |

Dependent Variable:

DV: Enjoyment of Mediated Sport. For the purposes of this paper, enjoyment of mediated sport was defined as the pleasure experienced from consumption of mediated entertainment. Enjoyment of mediated sport was measured using a scale that was adopted from previous entertainment research (Raney, 2002, 2005; Raney & Bryant, 2002; Raney & Depalma, 2006). Enjoyment was measured using 4 statements about viewer reactions to the game. The items used a seven-point scale from 1 (not at all) to 7 (extremely) and reflected different components of sports enjoyment, such as entertainment, arousal, and suspense. Table 3.11 showcases the items that were included on the questionnaire. Responses to the items were combined to create a summated index referred to as enjoyment. Enjoyment was measured after each play. Due to the number of items being collected following each play, the researcher conducted a pilot study to ensure that there is not a high drop out rate.
Table: 3.11
Enjoyment of Mediated Sport: (Raney, 2002, 2005; Raney & Bryant, 2002; Raney & Depalma, 2006)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How exciting was the play?</td>
</tr>
<tr>
<td>5</td>
<td>Did you like watching the play?</td>
</tr>
<tr>
<td>6</td>
<td>Was the play entertaining?</td>
</tr>
<tr>
<td>8</td>
<td>Was the play suspenseful?</td>
</tr>
</tbody>
</table>

Sample Selection

Participants for this study were recruited using the participant pool from a large, Southeastern university. Following the approval of the IRB, the researcher recruited 469 participants to volunteer for the overall study. All recruited students were over the age of consent and therefore the use of a parental authorized consent form was not necessary, but the researcher received an informed consent from each participant. Although the use of college student as participants is often discourage, the researcher believed that previous research in disposition and enjoyment (Arpan & Raney, 2003; Arpan, Raney, & Zivnuska, 2003; Raney & Depalma, 2006) gave credibility to the use of a student sample in the present study. Using the student participation pool at a large, Southeastern university allowed the researcher to analyze a concentrated and highly identified sample of the overall population.

The researcher supplied each participant with a brief description of the individual study and explained the overall procedure, but did not fully disclose the purpose of the study. Following the informed consent statement, each participant was directed to begin answering the research survey items. The survey took approximately 20 - 25 minutes to complete, and at the conclusion, the participants were debriefed about the nature of the individual study and were informed of the falsification of any manipulations.
Procedure

Subjects recruited using the participation pool at a large, public, Southeastern university were directed to visit a web address provided by Qualtrics.com where they first viewed an informed consent document. This document provided any necessary information for the participant to complete the survey, and also disclosed any potential stress that may occur throughout the course of the study. Those that agreed to the terms of the study were directed to the pretest questionnaire where the participant was asked to answer questions regarding media consumption, football playing/viewing history, knowledge of CTE, and spectator identification.

Following the preliminary measures, the participants were exposed to 16 individual plays of varying levels of violence (not violent, intermediate levels of violence, violent without head-to-head impact, violent with head-to-head impact). After the participant watched each play, he/she then answered questions regarding perceived violence, enjoyment level, level of rivalry, and disposition toward opposing team.

Lastly, the participants were shown a debriefing statement that described the purpose of the study. After reading the debriefing statement, the each participant was asked to answer questions regarding basic demographic information.

Reliability and Validity

According to Neuendorf (2002), reliability is the ability of a scale to consistently generate similar results when measuring the same construct over time. Cronbach’s alpha was used to measure the reliability of each dependent variable in this study. For a measure to have an acceptable level of reliability, it must score .7 or higher on Cronbach’s alpha. Scores between .8
and .89 are considered to have “good” levels of reliability and scores above .9 are deemed “excellent” (George & Mallery, 2003).

A second fact that must be carefully examined is the validity of the measures that are used. Validity is the ability of the scale to measure what the researcher intends to measure. Wimmer and Dominick (2011) note three types of validity for measures (face validity, construct validity, and content validity) that the researcher used during the creation of the survey. Face validity, simply put, is the validity of the scales on a surface level. If the scales appear to measure what the researcher intends for them to measure, they are said to have face validity. This type of validity is often based on the credibility of the individual researcher. The second type of validity, construct validity, assures that the scales are related to similar measures and are not related to measures that are not similar. Finally, content validity was achieved by the approval of a panel of experts in public relations, communication studies, and sport communication.

Data Analysis

SPSS Statistics 21.0 was used to analyze the data with all data entered in aggregate form. Respondents were told that their participation was completely voluntary, and participants were not required to answer any question and could stop participation at any time. Because participants had the ability to skip questions, the researcher cleaned the data throughout the responses to account for respondent drop out by assigning the number -99 to any response that was left unanswered. All responses coded with -99 were excluded from analysis. After the categorical data was cleaned, a composite score was calculated for each scale that allows for scales to be analyzed as continuous data. The scales that made up the survey items were first tested for reliability and validity. Following the approval of the measurements by the panel of
experts, a pilot test was conducted with 25 participants from a large Southeastern university. The pilot test used to assess the appropriateness of each measurement in the survey was conducted between October 15 and October 20.

The scales used by the researcher were chosen because of their history of validity and reliability in measuring the predictor and outcome variables explored throughout this study. The predictor variables in the present study were defined as: (1) General Sport Fanship, (2) Knowledge of CTE, (3) Spectator Identification / Disposition and (4) Perceived Violence, (5) Perceived Level of Rivalry, (6) Disposition toward Opposing Team. The outcome variable in the present study was defined as: (1) Enjoyment of mediated sport. Reliability for each scale was calculated using Cronbach’s alpha. All scales used by the researcher were above the acceptable level (.70). According to Qualtrics.com, the survey could be completed within the target time. In order to answer research questions 1, 2, 3, 4, and 5, the researcher used the following test:

<table>
<thead>
<tr>
<th>Research Question/Hypothesis</th>
<th>Variables</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H₁:</strong> Fans of home team will receive greater enjoyment when the home team delivers violent hits than when the home team receives violent hits.</td>
<td>IV: Violence (continuous) Moderator: HT Fanship (continuous) DV: Enjoyment (continuous)</td>
<td>Repeated Measures ANCOVA</td>
</tr>
<tr>
<td><strong>RQ₁:</strong> To what extent will disposition toward “home team” affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence?</td>
<td>IV: Violence (continuous) Moderator: Disposition (continuous) DV: Enjoyment (continuous)</td>
<td>Repeated Measures ANCOVA</td>
</tr>
<tr>
<td><strong>H₂:</strong> Viewer’s disposition toward opponent will have an inverse relationship with their perception of violence.</td>
<td>IV: Violence (continuous) DV: Disposition (continuous)</td>
<td>Correlation</td>
</tr>
<tr>
<td><strong>RQ₂:</strong> To what extent will disposition toward opponent affect self-reported</td>
<td>IV: Violence (continuous)</td>
<td>Repeated Measures ANCOVA</td>
</tr>
</tbody>
</table>
In order to answer research question 6, the researcher used the following test:

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Variables</th>
<th>Test</th>
</tr>
</thead>
</table>
| RQ6: To what extent will media consumption rates affect knowledge of CTE? | IV: Media consumption rates (categorical)  
DV: Knowledge of CTE (continuous) | Correlation |
In order to answer research question 7, the researcher used the following test:

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Variables</th>
<th>Test</th>
</tr>
</thead>
</table>
| RQ7: To what extent will knowledge of CTE affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? | IV: Violence (continuous)  
Moderator: Knowledge of CTE (continuous)  
DV: Enjoyment (continuous) | Repeated Measures ANCOVA |
CHAPTER FOUR

RESULTS

Description of the Sample

Using the University of Alabama student participation pool and survey’s distributed to multiple classes, 469 participants started the survey. Of the 469 participants who started the survey, 95 respondents were excluded because they failed reliability checks by not answering a large portion of the survey questions or entering the same response option for every question. Therefore, 374 acceptable respondents were included in the analysis.

There were 108 male respondents (28.9 percent of the sample) and 266 female respondents (71.1 percent of the sample). The mean age of respondents in this sample was 19 years old ($SD = 1.402$). The age of the respondents had a reported range from 17 to 31 years old, with 90.3 percent of the participants falling between 18 and 21.

The race of the respondents was as follows: Native American ($N = 1$, 0.3 percent), Asian ($N = 11$, 2.9 %), African American ($N = 26$, 7.0 %), Hispanic ($N = 11$, 2.9 %), White/Caucasian ($N = 317$, 84.8 %), and 2.1 percent of the sample indicated a race other than listed ($N = 8$). It is acknowledged that the sample is skewed toward college-aged students, Caucasian participants, and women. These limitations will be noted further in the study.

Reliability and Normality

Four items were used to measure enjoyment of mediated sport following each of the 16 conditions, and none of these items was reverse-coded. Reliability analysis revealed that the
scale was reliable for each video viewed by the research participants with a reliability (Cronbach’s alpha) ranging from $\alpha = .945$ to $\alpha = .971$. There were no items that needed to be removed to improve reliability; therefore, all four items were combined to form the enjoyment variable for each condition, resulting in 16 variables for enjoyment. Normality was assessed for each enjoyment variable, and because the skewness and kurtosis were found to be within the normal ranges of $[-1, 1]$ and $[-1, 2]$, each variable for enjoyment of mediated sport was therefore reliable and normally distributed and can be seen in table 3.1. In the tables throughout the results section, the condition name can be deciphered as team delivering hit (for example UA or AU), team receiving hit (UA or AU), and level of violence (1 - 4 with 1 = Not Violent, 2 = Intermediate Levels of violence, 3 = Violent without head-to-head impact, and 4 = Violent with head-to-head impact). For example, UAvAU1 would represent an Alabama player delivering the hit to an Auburn player at the lowest level of violence.

\begin{table}
\centering
\caption{Reliability and Normality of Variable: Enjoyment of Mediated Sport}
\begin{tabular}{llll}
\hline
Condition & Reliability & Skewness & Kurtosis \\
\hline
UAvAU1 & $\alpha = .959$ & .313 & -.671 \\
UAvAU2 & $\alpha = .963$ & -.037 & -.856 \\
UAvAU3 & $\alpha = .955$ & -.595 & -.338 \\
UAvAU4 & $\alpha = .959$ & -.114 & -.824 \\
AUvUA1 & $\alpha = .971$ & .257 & -.769 \\
AUvUA2 & $\alpha = .954$ & -.076 & -.680 \\
AUvUA3 & $\alpha = .952$ & -.016 & -.635 \\
AUvUA4 & $\alpha = .955$ & -.710 & .080 \\
UAvSM1 & $\alpha = .967$ & .677 & -.234 \\
\hline
\end{tabular}
\end{table}
<table>
<thead>
<tr>
<th>Scale</th>
<th>Reliability</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA vSM2</td>
<td>α = .962</td>
<td>.424</td>
<td>-.557</td>
</tr>
<tr>
<td>UA vSM3</td>
<td>α = .961</td>
<td>.000</td>
<td>-.610</td>
</tr>
<tr>
<td>UA vSM4</td>
<td>α = .955</td>
<td>-.318</td>
<td>-.610</td>
</tr>
<tr>
<td>SM vUA1</td>
<td>α = .959</td>
<td>-.061</td>
<td>-.838</td>
</tr>
<tr>
<td>SM vUA2</td>
<td>α = .952</td>
<td>.604</td>
<td>-.306</td>
</tr>
<tr>
<td>SM vUA3</td>
<td>α = .945</td>
<td>-.577</td>
<td>-.348</td>
</tr>
<tr>
<td>SM vUA4</td>
<td>α = .956</td>
<td>-.193</td>
<td>-.645</td>
</tr>
</tbody>
</table>

The scale for general sport fanship included eight items. None of these items were reverse-coded. Reliability analysis revealed that the scale was reliable, \( \alpha = .91 \). There were no items that needed to be removed to improve reliability; therefore, all eight items were combined to form the general sport fanship variable. Normality was assessed for the enjoyment variable. The skewness for this variable was -.34 (within the \([-1, 1]\) range) and the kurtosis was -.44 (also within the \([-1, 2]\) range). The variable for general sport fanship was therefore reliable and normally distributed.

Eight items were used to measure sport media consumption, and none of these items were reverse-coded. Reliability analysis revealed that the scale was reliable, \( \alpha = .85 \). None of the items needed to be removed to improve reliability; therefore, all eight items were combined to form the sport media consumption variable. An analysis of normality indicated that the variable was not normally distributed with a skewness of 1.24 and kurtosis of 1.330. These scores were not within the acceptable ranges of \([-1, 1]\) and \([-1, 2]\). The variable for sport media consumption was therefore reliable, but not normally distributed.
The scale for football playing/viewing history featured six items, two of which were reverse-coded. These items were recoded to reflect the direction of the rest of the scale. An initial reliability analysis revealed that the reliability was below the acceptable level of $\alpha = .80$. Two items (one reverse-coded item and one regularly coded item) were removed from the scale to improve reliability. After removing the items, reliability was an acceptable $\alpha = .91$. These remaining four items were combined to form the variable for football playing/viewing knowledge. Normality was assessed for this variable, with a histogram and normal curve revealing that the data was visibly normal. The skewness for this variable was .62 (within the [-1, 1] range) and the kurtosis was -.27 (also within the [-1, 2] range).

The scale for knowledge of CTE featured 13 items, three of which were reverse-coded. These items were recoded to reflect the direction of the rest of the scale. An initial reliability analysis revealed that the reliability ($\alpha = .74$) was below the acceptable level of $\alpha = .80$. Four items (three reverse-coded items and one regularly coded item) were removed from the scale to improve reliability. After removing the items, reliability was an acceptable $\alpha = .82$. These remaining nine items were combined to form the variable for knowledge of CTE. Normality was assessed for this variable, with a histogram and normal curve revealing that the data was visibly normal. The skewness for this variable was .11 (within the [-1, 1] range) and the kurtosis was -.17 (also within the [-1, 2] range).

Seven items were used to measure spectator identification toward home team, and none of these items were reverse-coded. Strong reliability was found for the scale, $\alpha = .92$. None of the items needed to be removed to improve reliability; therefore, all seven items were combined to form the spectator identification variable. Skewness for this variable was -1.52 (outside the normal, [-1, 1]), and kurtosis was 3 (outside the normal, [-1, 2]), and a visual review of the
histogram and non-normal curve revealed that the variable was not normally distributed. The variable for spectator identification was therefore found to be reliable but not normally distributed.

The scale for personal commitment to team featured 14 items, three of which were reverse-coded. These items were recoded to reflect the direction of the rest of the scale. An initial reliability analysis revealed a strong reliability ($\alpha = .90$) which was well above the acceptable level of $\alpha = .80$. No items would have increased reliability had they been removed; therefore all 14 items were included when the scale variable was calculated. Normality was assessed for this variable, with a histogram and normal curve revealing that the data was visibly normal. The skewness for this variable was .67 (within the $[-1, 1]$ range) and the kurtosis was .31 (also within the $[-1, 2]$ range).

**Aggregate Means for Enjoyment**

<table>
<thead>
<tr>
<th>Overall Mean Enjoyment at All Condition Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>UA(_{vSM1})</td>
</tr>
<tr>
<td>UA(_{vSM2})</td>
</tr>
<tr>
<td>UA(_{vSM3})</td>
</tr>
<tr>
<td>UA(_{vSM4})</td>
</tr>
</tbody>
</table>

**Hypotheses and Research Questions**

**Hypothesis 1 (H\(_1\))**

Hypothesis 1 (H\(_1\)) sought to open the study by giving the researcher insight into the level of enjoyment found by a fan when his/her home team received and delivered violent hits. H\(_1\) specifically stated that fans of the home team would receive greater enjoyment when the home
team delivered violent hits than when the home team received violent hits. To fully test this hypothesis, the researcher conducted a pair of repeated measures ANCOVA tests to analyze the differences in level of enjoyment found when the home team competed against teams with varying levels of rivalry, but the same high levels of violence in the plays viewed in order to control for the “violence” variable. The mean enjoyment level for fans who watched their home team receive violent hits from schools with a high level of rivalry was 4.64 ($SD = 1.42$, on a scale of one through seven, (where seven was the highest level of enjoyment). The mean enjoyment level for fans who watched their home team deliver violent hits to schools with a high level of rivalry was 3.81 ($SD = 1.55$, on a scale of one through seven, where seven was the highest level of enjoyment). Significance was found within the model $F(1, 360) = 13.39$, $p = .001$, accounting for 3.6 percent of the variance. Significance was also found in the effect of the covariate on the dependent variables with fans who watched their home team deliver violent hits from schools with a high level of rivalry $t(1, 360) = 2.43$, $p = .016$, accounting for 1.6 percent of variance and fans who watched their home team receive violent hits from schools with a high level of rivalry $t(1, 360) = 3.86$, $p = .001$, accounting for 4 percent of variance.

The mean enjoyment level for fans who watched their home team receive violent hits from schools with a low level of rivalry was 3.82 ($SD = 1.40$ on a scale of one through seven, where seven was the highest level of enjoyment). The mean enjoyment level for fans who watched their home team deliver violent hits to schools with a low level of rivalry was 4.26 ($SD = 1.54$, on a scale of one through seven, where seven was the highest level of enjoyment). Significance was found within the model $F(1, 365) = 6.036$, $p = .014$, accounting for 1.6 percent of the variance. Significance was also found in the effect of the covariate on the dependent variable of fans who watched their home team deliver violent hits to schools with a low level of
rivalry $t(1, 365) = 3.95, p = .001$, accounting for 4.1 percent of variance, but significance was not found in the effect of the covariate on the dependent variable of fans who watched their home team receive violent hits from schools with a low level of rivalry $t(1, 365) = 1.65, p = .100$, accounting for .7 percent of variance.

This shows that the hypothesis was not fully supported. Analysis of the data showed that fans experienced higher levels of enjoyment when the home team received violent hits from opponents with high levels of rivalry than when the home team delivered violent hits to opponents with high levels of rivalry. Further analysis reveals that the inverse is true when looking at lower level rivalry, and the hypothesis is supported when viewing violent hits against teams with a lower level rivalry.

*Research Question 1 (RQ$_1$)*

Research Question 1 (RQ$_1$) was tested to give the researcher insight into the impact of identification and disposition on enjoyment found by a fan when the fan’s home team received and delivered violent hits. RQ$_1$ specifically asked to what extent will a fan’s disposition toward “home team” affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? To fully answer this question, the researcher conducted multiple repeated measures ANCOVA tests which included a covariate that looked at the home team receiving and delivering hits of varying levels of violence. To aid in exploring the variances in impact on enjoyment between receiving and delivering hits along with the rivalry level of the opposing team, the researcher has chosen to break RQ$_1$ into four distinct tables.
When considering the condition where an Alabama player delivered hits of varying levels of violence to a team with a low level of rivalry (University of Southern Mississippi), the mean enjoyment level for fans who watched their home team deliver the lowest level of violent hit (1) was 2.62 ($SD = 1.43$ on a scale of one through seven, where seven was the highest level of enjoyment). The mean enjoyment level for fans who watched their home team deliver an intermediate level of violent hit (2) was 3.01 ($SD = 1.41$). The mean enjoyment level for fans who watched their home team deliver a violent hit without head-to-head impact (3) was 3.44 ($SD = 1.42$), and lastly, the mean enjoyment level for fans who watched their home team deliver a violent hit with head-to-head impact (4) was 4.29 ($SD = 1.54$). Significance was found for the effect of spectator identification on enjoyment within the current condition $F(1, 350) = 15.986$, $p = .001$, accounting for 3.6 percent of the variance. When looking at table 4.2 above, it can be seen that enjoyment increased as violence increased at all condition levels; however level 2 was not statistically significant. The relationship between disposition toward “home team” and enjoyment was significant for level 1 ($\beta(350) = -.192, p = .006$), level 3 ($\beta(350) = .163, p = .063$) and level 4 ($\beta(350) = .252, p = .074$). The “b” score of level one indicated that there was a negative relationship between disposition toward “home team” and the enjoyment of the play.
while the “b” scores for level three and four indicated a positive relationship between the covariate and the outcome variable.

Table 4.3  
RQ1B: Outcome Variable: Enjoyment / Predictor Variable: Home Team Disposition

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvAU1</td>
<td>HT Disposition</td>
<td>p = .331</td>
<td>t(1, 361) = .973</td>
<td>β(361) = .067</td>
<td>.3%</td>
</tr>
<tr>
<td>UAvAU2</td>
<td>HT Disposition</td>
<td>p = .062</td>
<td>t(1, 361) = 1.87</td>
<td>β(361) = .134</td>
<td>1%</td>
</tr>
<tr>
<td>UAvAU3</td>
<td>HT Disposition</td>
<td>p = .008</td>
<td>t(1, 361) = 2.68</td>
<td>β(361) = .188</td>
<td>2%</td>
</tr>
<tr>
<td>UAvAU4</td>
<td>HT Disposition</td>
<td>p = .017</td>
<td>t(1, 361) = 2.39</td>
<td>β(361) = .172</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

When considering the condition where an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry (Auburn University), the mean enjoyment level for fans who watched their home team deliver the lowest level of violent hit (1) was 3.29 (SD = 1.49). The mean enjoyment level for fans who watched their home team deliver an intermediate level of violent hits (2) was 3.61 (SD = 1.54). The mean enjoyment level for fans who watched their home team deliver a violent hit without head-to-head impact (3) was 4.68 (SD = 1.52), and lastly, the mean enjoyment level for fans who watched their home team deliver a violent hit with head-to-head impact (4) was 3.82 (SD = 1.55). Significance was not found for the effect of disposition toward “home team” on enjoyment within the current condition $F(1, 361) = 1.147, p = .329$, accounting for 3.6 percent of the variance. When analyzing the mean score of each condition and looking at table 4.3 above, it can be seen that enjoyment increased as violence increased up to level three and decreased at the highest level of violence; however, levels one and two were not statistically significant. This finding suggests that while fans like some degree of violence against a team with high levels of rivalry, the head-to-head impact was not something
that fans enjoyed viewing. The relationship between disposition toward “home team” and
enjoyment was significant for levels three ($\beta(361) = .188, p = .008$) and level four ($\beta(361) = .172, p = .017$). The “b” score of levels three and four indicate a positive relationship between the
covariate and the outcome variable.

Table 4.4

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMvUA1</td>
<td>HT Disposition</td>
<td>$p = .001$</td>
<td>$t(1, 363) = 3.98$</td>
<td>$\beta(363) = .293$</td>
<td>4.2%</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>HT Disposition</td>
<td>$p = .277$</td>
<td>$t(1, 363) = -1.08$</td>
<td>$\beta(363) = -.071$</td>
<td>.3%</td>
</tr>
<tr>
<td>SMvUA3</td>
<td>HT Disposition</td>
<td>$p = .077$</td>
<td>$t(1, 363) = 1.77$</td>
<td>$\beta(363) = .123$</td>
<td>.9%</td>
</tr>
<tr>
<td>SMvUA4</td>
<td>HT Disposition</td>
<td>$p = .111$</td>
<td>$t(1, 363) = 1.59$</td>
<td>$\beta(363) = .104$</td>
<td>.7%</td>
</tr>
</tbody>
</table>

When considering the condition where a team with a low level of rivalry (University of Southern Mississippi) delivered hits of varying levels of violence to an Alabama player, the
mean enjoyment level for fans who watched their home team receive the lowest level of violent hit (1) was 3.73 ($SD = 1.60$). The mean enjoyment level for fans who watched their home team receive an intermediate level of violent hit (2) was 2.83 ($SD = 1.40$). The mean enjoyment level for fans who watched their home team receive a violent hit without head-to-head impact (3) was 4.39 ($SD = 1.49$), and lastly, the mean enjoyment level for fans who watched their home team receive a violent hit with head-to-head impact (4) was 3.82 ($SD = 1.40$). Significance was found for the effect of disposition toward “home team” on enjoyment within the current condition $F(1, 363) = 7.97, p = .001$, accounting for 2.1 percent of the variance. When analyzing the mean score of each condition and looking at table 4.4 above, it can be seen that enjoyment was rated highest at level three and decreased at the highest level of violence; however, levels one, two and three
were not statistically significant. The relationship between disposition toward “home team” and enjoyment was significant ($\beta(363) = .293, p = .001$) at the lowest level of violence, indicating a positive relationship between the covariate and the outcome variable at this level.

Table 4.5

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>HT Disposition</td>
<td>$p = .692$</td>
<td>$t(1, 352) = .396$</td>
<td>$\beta(352) = .029$</td>
<td>0%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>HT Disposition</td>
<td>$p = .144$</td>
<td>$t(1, 352) = 1.46$</td>
<td>$\beta(352) = .104$</td>
<td>.6%</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>HT Disposition</td>
<td>$p = .011$</td>
<td>$t(1, 352) = 2.564$</td>
<td>$\beta(352) = .178$</td>
<td>1.8%</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>HT Disposition</td>
<td>$p = .001$</td>
<td>$t(1, 352) = 3.639$</td>
<td>$\beta(352) = .244$</td>
<td>3.6%</td>
</tr>
</tbody>
</table>

When considering the condition where a team with a high level of rivalry (Auburn University) delivers hits of varying levels of violence to an Alabama player, the mean enjoyment level for fans who watched their home team receive the lowest level of violent hit (1) was 3.27 ($SD = 1.55$). The mean enjoyment level for fans who watched their home team receive an intermediate level of violent hit (2) was 3.74 ($SD = 1.49$). The mean enjoyment level for fans who watched their home team receive a violent hit without head-to-head impact (3) was 3.60 ($SD = 1.46$), and lastly, the mean enjoyment level for fans who watched their home team receive a violent hit with head-to-head impact (4) was 4.64 ($SD = 1.42$). Significance was found for the effect of disposition toward “home team” on enjoyment within the current condition $F(1, 352) = 3.74, p = .011$, accounting for 1.1 percent of the variance. When analyzing the mean score of each condition and looking at table 4.5 above, it can be seen that enjoyment increased as the level of violence increased, dropping slightly at condition level three. Conditions three and four were statistically significant, and showed an increase in enjoyment with violence. The
relationship between disposition toward “home team” and enjoyment was significant for level 3 ($\beta(352) = .178, p = .011$) and level 4 ($\beta(352) = .244, p = .001$), indicating a positive relationship between the covariate and the outcome variable at these levels.

*Hypothesis 2 ($H_2$)*

Hypothesis 2 ($H_2$) was tested to give the researcher insight into the effect of disposition toward opponent on perceived level of violence by the viewer. $H_2$ specifically states that viewer’s disposition toward an opponent will have an inverse relationship with the perception of violence. To fully test this hypothesis, Pearson correlations tests were used to examine the relationship between the viewer’s disposition toward the opponent and the viewer’s perception of violence for each play. As seen in the correlation table below (Table 4.6), it is evident that all correlations were positive (excluding condition UAvAU3), and the majority of these figures reflect a small degree of correlation. The correlation between perception of violence and disposition toward was positive, but weakens in relation to the increase of violence. Finally, we see significance for all correlations ($p<.05$) except for conditions UAvAU3 ($p=.685$) and UAvAU4 ($p = .373$), and the values found to be significant are significant even for a two-tailed analysis when the p-value is multiplied by two. The alternate hypothesis is that the viewer’s disposition toward the opponent will have an inverse relationship with the perception of violence; the null hypothesis is viewer’s disposition toward opponent will have a positive relationship with the perception of violence. Based on the correlations shown in table 4.6, the research fails to reject the null hypothesis.
Table 4.6
H2: Outcome Variable: Perception of Violence (POV) / Predictor Variable: Disposition Toward Opponent (DTO)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Predictor</th>
<th>Outcome</th>
<th>Pearson’s Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>DTO</td>
<td>POV</td>
<td>.310</td>
<td>.001</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>DTO</td>
<td>POV</td>
<td>.214</td>
<td>.001</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>DTO</td>
<td>POV</td>
<td>.226</td>
<td>.001</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>DTO</td>
<td>POV</td>
<td>.105</td>
<td>.045</td>
</tr>
<tr>
<td>UAvAU1</td>
<td>DTO</td>
<td>POV</td>
<td>.199</td>
<td>.001</td>
</tr>
<tr>
<td>UAvAU2</td>
<td>DTO</td>
<td>POV</td>
<td>.185</td>
<td>.001</td>
</tr>
<tr>
<td>UAvAU3</td>
<td>DTO</td>
<td>POV</td>
<td>-.021</td>
<td>.685</td>
</tr>
<tr>
<td>UAvAU4</td>
<td>DTO</td>
<td>POV</td>
<td>.046</td>
<td>.373</td>
</tr>
<tr>
<td>UAvSM1</td>
<td>DTO</td>
<td>POV</td>
<td>.265</td>
<td>.001</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>DTO</td>
<td>POV</td>
<td>.290</td>
<td>.001</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>DTO</td>
<td>POV</td>
<td>.124</td>
<td>.117</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>DTO</td>
<td>POV</td>
<td>.032</td>
<td>.542</td>
</tr>
<tr>
<td>SMvUA1</td>
<td>DTO</td>
<td>POV</td>
<td>.265</td>
<td>.001</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>DTO</td>
<td>POV</td>
<td>.258</td>
<td>.001</td>
</tr>
<tr>
<td>SMvUA3</td>
<td>DTO</td>
<td>POV</td>
<td>.074</td>
<td>.156</td>
</tr>
<tr>
<td>SMvUA4</td>
<td>DTO</td>
<td>POV</td>
<td>.101</td>
<td>.050</td>
</tr>
</tbody>
</table>

Research Question 2 (RQ2)

Research Question 2 (RQ2) asked to what extent will disposition toward opponent affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? The researcher conducted multiple repeated measures ANCOVA tests with a
covariate that looked at the home team receiving and delivering hits of varying levels of violence.

To aid in exploring the variances in impact on enjoyment between receiving and delivering hits along with disposition toward opposing team, the researcher has chosen to break RQ₂ into four distinct tables.

Table 4.7  
RQ2A: Outcome Variable: Enjoyment / Predictor Variable: Disposition Toward Opponent (DTO)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvSM1</td>
<td>DTO</td>
<td>p = .001</td>
<td>t(1, 350) = 5.65</td>
<td>β(350) = .334</td>
<td>8.4%</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>DTO</td>
<td>p = .001</td>
<td>t(1, 350) = 4.67</td>
<td>β(350) = .276</td>
<td>5.9%</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>DTO</td>
<td>p = .010</td>
<td>t(1, 350) = 2.60</td>
<td>β(350) = .159</td>
<td>1.9%</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>DTO</td>
<td>p = .778</td>
<td>t(1, 350) = .269</td>
<td>β(350) = .018</td>
<td>0%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of disposition toward opponent on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a low level of rivalry), \( F(3, 350) = 10.61, \ p = .001 \), accounting for 2.4 percent of the variance. When looking at table 3.7 (above), it can be seen that the relationship between disposition toward opponent and enjoyment was significant for level one (\( β(350) = .334, \ p = .001 \)), level two (\( β(350) = .276, \ p = .001 \)) and level three (\( β(350) = .159 \ p = .010 \)). Although enjoyment was found to increase as violence increased at all condition levels, level 4 was not statistically significant. The \( t \) values presented in table 4.7 indicate that the strength of the relationship between enjoyment and violence decreases as the variable for disposition toward opponent is taken into account.
### Table 4.8

**RQ2B: Outcome Variable: Enjoyment / Predictor Variable: Disposition Toward Opponent (DTO)**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvAU1</td>
<td>DTO</td>
<td>$p = .001$</td>
<td>$t(1, 360) = 3.34$</td>
<td>$\beta(360) = .219$</td>
<td>3%</td>
</tr>
<tr>
<td>UAvAU2</td>
<td>DTO</td>
<td>$p = .003$</td>
<td>$t(1, 360) = 2.95$</td>
<td>$\beta(360) = .201$</td>
<td>2.4%</td>
</tr>
<tr>
<td>UAvAU3</td>
<td>DTO</td>
<td>$p = .117$</td>
<td>$t(1, 360) = -1.57$</td>
<td>$\beta(360) = -.106$</td>
<td>.7%</td>
</tr>
<tr>
<td>UAvAU4</td>
<td>DTO</td>
<td>$p = .179$</td>
<td>$t(1, 360) = 1.34$</td>
<td>$\beta(360) = .093$</td>
<td>.5%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of disposition toward opponent on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry), $F(3, 360) = 9.929$, $p = .001$, accounting for 2.7 percent of the variance. When looking at table 3.8 (above), it can be seen that the relationship between disposition toward opponent and enjoyment was significant for level one ($\beta(360) = .219$, $p = .001$), and level two ($\beta(360) = .201$, $p = .003$). Enjoyment for this model was found to increase as violence increased at all condition levels, excluding level four, which was not statistically significant at the individual condition level. The $t$ values presented in table 4.8 indicate that the strength of the relationship between enjoyment and disposition toward opponent decreases as the variable for violence is taken into account.

### Table 4.9

**RQ2C: Outcome Variable: Enjoyment / Predictor Variable: Disposition Toward Opponent (DTO)**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMvUA1</td>
<td>DTO</td>
<td>$p = .456$</td>
<td>$t(1, 363) = .746$</td>
<td>$\beta(363) = .051$</td>
<td>.2%</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>DTO</td>
<td>$p = .001$</td>
<td>$t(1, 363) = 4.21$</td>
<td>$\beta(363) = .247$</td>
<td>4.7%</td>
</tr>
</tbody>
</table>
Significance was found for the effect of disposition toward opponent on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a low level of rivalry), $F(3, 363) = 4.149, p = .006$, accounting for 1.1 percent of the variance. When looking at Table 4.9 (above), it can be seen that the relationship between disposition toward opponent and enjoyment was significant for level two ($\beta(363) = .247, p = .001$), but was not found to be statistically significant at any other condition level. Within the model that was found to be significant, enjoyment was at its lowest point for the condition (SMvUA2) that was individually found to be significant within the model. The $t$ value presented in condition two of Table 3.9 indicates that the strength of the relationship between enjoyment and disposition toward opponent is relatively strong in comparison to the same variable combination across other models.

**Table 4.10**
RQ2D: Outcome Variable: Enjoyment/Predictor Variable: Disposition Toward Opponent (DTO)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>DTO</td>
<td>$p = .001$</td>
<td>$t(1, 347) = 3.47$</td>
<td>$\beta(363) = .233$</td>
<td>3.4%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>DTO</td>
<td>$p = .266$</td>
<td>$t(1, 347) = 1.11$</td>
<td>$\beta(363) = .074$</td>
<td>.4%</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>DTO</td>
<td>$p = .130$</td>
<td>$t(1, 347) = 1.51$</td>
<td>$\beta(363) = .098$</td>
<td>.7%</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>DTO</td>
<td>$p = .006$</td>
<td>$t(1, 347) = -2.74$</td>
<td>$\beta(363) = -.173$</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of disposition toward opponent on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence.
from a team with a high level of rivalry), \( F(3, 347) = 15.01, p = .001, \) accounting for 4.1 percent of the variance. When looking at table 3.10 (above), it can be seen that the relationship between disposition toward opponent and enjoyment was significant for level 1 (\( \beta(347) = .233, p = .001 \) and level 4 (\( \beta(347) = -.173, p = .006 \)). The overall model was found to be significant, and enjoyment found to increase slightly with the level of violence in all conditions except level three. The \( t \) value presented in condition one of table 4.10 indicates a moderately strong positive relationship between enjoyment and disposition toward opponent when the variable for low levels of violence is taken into account, however, \( t \) value presented in condition four indicates an inverse relationship between enjoyment and disposition toward opponent when the variable for high levels of violence is taken into account.

**Hypothesis 3 (H3)**

Hypothesis 3 (\( H_3 \)) was tested to give the researcher insight into the effect of perception of rivalry on perceived level of violence by the viewer. \( H_3 \) specifically states that the viewer’s perception of the rivalry will be positively associated with his/her perception of violence. For example, if a participant perceived the level of rivalry to be high, it was predicted that the level of violence would also be perceived as being heightened. To fully test this hypothesis, Pearson correlations were used to examine the relationship between the viewer’s perception of rivalry, and the viewer’s perception of violence for each play. As seen in the correlation table below (Table 4.11), the statistically significant (\( p<.05 \)) conditions are: AUvUA1 (\( p=.001 \)), UAvAU3 (\( p=.038 \)), UAvAU4 (\( p=.001 \)), UAvSM1 (\( p=.001 \)), UAvSM2 (\( p=.001 \)), SMvUA1 (\( p=.001 \)) and SMvUA2 (\( p=.001 \)). The only condition with a negative correlation was seen when a UA player was hit (low level of violence) by a player from a school with a high level of rivalry.
(AUvUA1). All other conditions that were statistically significant had a positive correlation predicting that perception of rivalry does have a positive relationship with perceived level of violence.

Table 4.11
H$_5$: Outcome Variable: Perceived Level of Violence / Predictor Variable: Perceived Level of Rivalry

<table>
<thead>
<tr>
<th>Condition</th>
<th>Predictor</th>
<th>Outcome</th>
<th>Pearson’s Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>Rivalry</td>
<td>POV</td>
<td>-.147</td>
<td>.001</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>Rivalry</td>
<td>POV</td>
<td>-.011</td>
<td>.831</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>Rivalry</td>
<td>POV</td>
<td>-.074</td>
<td>.154</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>Rivalry</td>
<td>POV</td>
<td>.043</td>
<td>.408</td>
</tr>
<tr>
<td>UAvAU1</td>
<td>Rivalry</td>
<td>POV</td>
<td>.100</td>
<td>.055</td>
</tr>
<tr>
<td>UAvAU2</td>
<td>Rivalry</td>
<td>POV</td>
<td>.047</td>
<td>.367</td>
</tr>
<tr>
<td>UAvAU3</td>
<td>Rivalry</td>
<td>POV</td>
<td>.108</td>
<td>.038</td>
</tr>
<tr>
<td>UAvAU4</td>
<td>Rivalry</td>
<td>POV</td>
<td>.169</td>
<td>.001</td>
</tr>
<tr>
<td>UAvSM1</td>
<td>Rivalry</td>
<td>POV</td>
<td>.355</td>
<td>.001</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>Rivalry</td>
<td>POV</td>
<td>.368</td>
<td>.001</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>Rivalry</td>
<td>POV</td>
<td>.091</td>
<td>.081</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>Rivalry</td>
<td>POV</td>
<td>-.091</td>
<td>.080</td>
</tr>
<tr>
<td>SMvUA1</td>
<td>Rivalry</td>
<td>POV</td>
<td>.366</td>
<td>.001</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>Rivalry</td>
<td>POV</td>
<td>.221</td>
<td>.001</td>
</tr>
<tr>
<td>SMvUA3</td>
<td>Rivalry</td>
<td>POV</td>
<td>.084</td>
<td>.107</td>
</tr>
<tr>
<td>SMvUA4</td>
<td>Rivalry</td>
<td>POV</td>
<td>.077</td>
<td>.137</td>
</tr>
</tbody>
</table>
Research Question 3 (RQ₃)

Research Question 3 (RQ₃) asked to what extent the perceived level of rivalry would affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? The researcher conducted multiple repeated measures ANCOVA tests with a covariate that looked at the home team receiving and delivering hits of varying levels of violence. To aid in exploring the variances in impact on enjoyment between receiving and delivering hits along with perceived level of rivalry, the researcher has chosen to break RQ₃ into four distinct tables.

Table 4.12
RQ3A: Outcome Variable: Enjoyment / Predictor Variable: Perceived Level of Rivalry

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvSM1</td>
<td>Rivalry</td>
<td>p = .001</td>
<td>t(1, 350) = 4.99</td>
<td>β(350) = .228</td>
<td>6.7%</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>Rivalry</td>
<td>p = .001</td>
<td>t(1, 350) = 4.02</td>
<td>β(350) = .183</td>
<td>4.4%</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>Rivalry</td>
<td>p = .001</td>
<td>t(1, 350) = 4.41</td>
<td>β(350) = .202</td>
<td>5.3%</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>Rivalry</td>
<td>p = .298</td>
<td>t(1, 350) = -1.04</td>
<td>β(350) = 1.053</td>
<td>.3%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of perceived level of rivalry on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a low level of rivalry), $F(3, 350) = 15.67$, $p = .001$, accounting for 3.5 percent of the variance. When looking at table 4.12 (above), it can be seen that the relationship between perceived level of rivalry and enjoyment was significant for level one ($β(350) = .4.99$, $p = .001$), level two ($β(350) = .183$, $p = .001$) and level three ($β(350) = .202 p = .001$). Although enjoyment was found to increase as violence increased at all condition levels, level four was not statistically significant. The t values presented in table 4.12 indicate that the strength of the relationship
between enjoyment and level of rivalry was highest at the lowest level of violence, followed by condition 3 and then level two as the variable for perceived violence is taken into account.

Table 4.13
RQ3B: Outcome Variable: Enjoyment / Predictor Variable: Perceived Level of Rivalry

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvAU1</td>
<td>Rivalry</td>
<td>p = .868</td>
<td>t(1, 360) = .166</td>
<td>β(360) = .013</td>
<td>0%</td>
</tr>
<tr>
<td>UAvAU2</td>
<td>Rivalry</td>
<td>p = .400</td>
<td>t(1, 360) = .842</td>
<td>β(360) = .070</td>
<td>.2%</td>
</tr>
<tr>
<td>UAvAU3</td>
<td>Rivalry</td>
<td>p = .001</td>
<td>t(1, 360) = 3.58</td>
<td>β(360) = .288</td>
<td>3.4%</td>
</tr>
<tr>
<td>UAvAU4</td>
<td>Rivalry</td>
<td>p = .013</td>
<td>t(1, 360) = 2.48</td>
<td>β(360) = .205</td>
<td>1.7%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of perceived level of rivalry on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry), F(3, 360) = 4.762, p = .003, accounting for 1.3 percent of the variance. When looking at table 4.13 (above), it can be seen that the relationship between perceived level of rivalry and enjoyment was significant for level three (β(360) = 288., p = .001), and level 4 (β(360) = .205, p = .013). This data shows that as perceived level of rivalry increases, enjoyment also increases when UA is hitting AU in levels one, two and three of violence, however levels one and two are not statistically significant. The t values presented in table 4.13 indicate a stronger relationship between the individual condition and enjoyment at level three than it does at level four, however both have a positive relationship.
Significance was found for the effect of perceived level of rivalry on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a low level of rivalry), $F(3, 363) = 7.59, p = .001$, accounting for 2 percent of the variance. When looking at table 4.14 (above), it can be seen that the relationship between level of rivalry and enjoyment was significant for level two ($\beta(363) = .239, p = .001$), but was not found to be statistically significant at any other condition level. This data shows that as perceived level of rivalry increases, enjoyment also increases when SM is hitting UA in levels one, two and four of violence, however levels one and four are not statistically significant. The $t$ values presented in table 4.14 indicate a strong relationship between the individual condition and enjoyment at level two.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMvUA1</td>
<td>Rivalry</td>
<td>$p = .067$</td>
<td>$t(1, 363) = 1.84$</td>
<td>$\beta(363) = .096$</td>
<td>.9%</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>Rivalry</td>
<td>$p = .001$</td>
<td>$t(1, 363) = 5.43$</td>
<td>$\beta(363) = .239$</td>
<td>7.5%</td>
</tr>
<tr>
<td>SMvUA3</td>
<td>Rivalry</td>
<td>$p = .908$</td>
<td>$t(1, 363) = -.116$</td>
<td>$\beta(363) = -.006$</td>
<td>.0%</td>
</tr>
<tr>
<td>SMvUA4</td>
<td>Rivalry</td>
<td>$p = .083$</td>
<td>$t(1, 363) = 1.73$</td>
<td>$\beta(363) = .079$</td>
<td>.8%</td>
</tr>
</tbody>
</table>

Table 4.15

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>Rivalry</td>
<td>$p = .755$</td>
<td>$t(1, 351) = -.313$</td>
<td>$\beta(351) = -.027$</td>
<td>0%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>Rivalry</td>
<td>$p = .144$</td>
<td>$t(1, 351) = 1.46$</td>
<td>$\beta(351) = .122$</td>
<td>.6%</td>
</tr>
</tbody>
</table>
Significance was found for the effect of perceived level of rivalry on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a high level of rivalry), \( F(3, 351) = 12.85, p = .001 \), accounting for 3.5 percent of the variance. When looking at table 4.15 (above), it can be seen that the relationship between perceived level of rivalry and enjoyment was significant for level four \( (\beta(351) = .440, p = .001) \). The overall model was found to be significant, and enjoyment found to increase slightly with the level of violence in all conditions except level three. This data shows that as perceived level of rivalry increases, enjoyment also increases when UA is receiving hits from AU in level four of violence, however levels one, two and three are not statistically significant. The \( t \) values presented in table 4.15 indicate a stronger relationship between the individual condition and enjoyment at level four than it does at levels one, two and three, and level one is the only condition with a negative relationship.

*Research Question 4 (RQ₄)*

Research Question 4 \( (RQ₄) \) asked to what extent general sport fanship would affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? The researcher conducted multiple repeated measures ANCOVA tests with a covariate that looked at the home team receiving and delivering hits of varying levels of violence. To aid in exploring the variances in impact on enjoyment between receiving and delivering hits along with general sport fanship, the researcher has chosen to break RQ₄ into four distinct tables.
### Table 4.16
**RQ4A: Outcome Variable: Enjoyment / Predictor Variable: General Sport Fanship**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>( t ) Value</th>
<th>( \beta ) Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA\text{vSM}1</td>
<td>Fanship</td>
<td>( p = .047 )</td>
<td>( t(1, 347) = -1.99 )</td>
<td>( \beta(347) = -.113 )</td>
<td>1.1%</td>
</tr>
<tr>
<td>UA\text{vSM}2</td>
<td>Fanship</td>
<td>( p = .702 )</td>
<td>( t(1, 347) = .383 )</td>
<td>( \beta(347) = .021 )</td>
<td>0%</td>
</tr>
<tr>
<td>UA\text{vSM}3</td>
<td>Fanship</td>
<td>( p = .024 )</td>
<td>( t(1, 347) = 2.26 )</td>
<td>( \beta(347) = .127 )</td>
<td>1.5%</td>
</tr>
<tr>
<td>UA\text{vSM}4</td>
<td>Fanship</td>
<td>( p = .001 )</td>
<td>( t(1, 347) = 4.268 )</td>
<td>( \beta(347) = .254 )</td>
<td>5%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of general sport fanship on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a low level of rivalry), \( F(3, 347) = 12.71, p = .001 \), accounting for 3.5 percent of the variance. When looking at table 4.16 (above), it can be seen that the relationship between general sport fanship and enjoyment was significant for level one \( (\beta(347) = -.113, p = .001) \), level three \( (\beta(347) = .127, p = .001) \) and level four \( (\beta(347) = .254, p = .001) \). Although enjoyment was found to increase as violence increased at all condition levels, level two was not statistically significant. The \( t \) values presented in table 4.16 indicate that the strength of the relationship between enjoyment and general sport fanship also increased as the variable for perceived violence is taken into account.

### Table 4.17
**RQ4B: Outcome Variable: Enjoyment / Predictor Variable: General Sport Fanship**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>( t ) Value</th>
<th>( \beta ) Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA\text{vAU}1</td>
<td>Fanship</td>
<td>( p = .031 )</td>
<td>( t(1, 357) = 2.15 )</td>
<td>( \beta(357) = .123 )</td>
<td>1.3%</td>
</tr>
<tr>
<td>UA\text{vAU}2</td>
<td>Fanship</td>
<td>( p = .002 )</td>
<td>( t(1, 357) = 3.13 )</td>
<td>( \beta(357) = .184 )</td>
<td>2.7%</td>
</tr>
</tbody>
</table>
UAvAU3 Fanship \( p = .016 \) \( t(1, 357) = 2.41 \) \( \beta(357) = .141 \) 1.6%
UAvAU4 Fanship \( p = .002 \) \( t(1, 357) = 3.05 \) \( \beta(357) = .180 \) 2.6%

Significance was not found for the effect of general sport fanship on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry), \( F(3, 357) = .520, p = .668 \), however significance was found on the individual condition level. When looking at table 4.17 (above), it can be seen that the relationship between general sport fanship and enjoyment was significant across all condition levels. This data shows a trend that as general sport fanship increases, enjoyment also increases when UA is hitting AU. The t values presented in table 4.17 indicate a stronger relationship between the individual condition and enjoyment at levels two and four than it does at levels one and three, however all conditions have a positive relationship.

Table 4.18  
RQ4C: Outcome Variable: Enjoyment / Predictor Variable: General Sport Fanship

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>( t ) Value</th>
<th>( \beta ) Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMvUA1</td>
<td>Fanship</td>
<td>( p = .001 ) ( t(1, 359) = 3.41 ) ( \beta(359) = .210 )</td>
<td>3.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMvUA2</td>
<td>Fanship</td>
<td>( p = .623 ) ( t(1, 359) = -.492 ) ( \beta(359) = -.027 )</td>
<td>.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMvUA3</td>
<td>Fanship</td>
<td>( p = .007 ) ( t(1, 359) = 2.72 ) ( \beta(359) = .156 )</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMvUA4</td>
<td>Fanship</td>
<td>( p = .033 ) ( t(1, 359) = 2.13 ) ( \beta(359) = .115 )</td>
<td>1.3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance was found for the effect of general sport fanship on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a low level of rivalry), \( F(3, 359) = 5.32, p = .001 \), accounting for 1.5 percent of the variance. When looking at table 4.18 (above), it can be seen that the relationship between general sport
fanship and enjoyment was significant for levels one ($\beta(359) = .210, p = .001$), three ($\beta(359) = .156, p = .007$) and four ($\beta(359) = .115, p = .033$), but was not found to be statistically significant at level two. The data shows that for statistically significant conditions, as general sport fanship increases, enjoyment also increases when SM (low level rivalry) is hitting UA. The t values presented in table 4.18 indicate a strong relationship between the individual condition and enjoyment; however, the relationship weakens as the level of violence increases.

Table 4.19
RQ4D: Outcome Variable: Enjoyment / Predictor Variable: General Sport Fanship

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>Fanship</td>
<td>$p = .677$</td>
<td>t(1, 350) = .417</td>
<td>$\beta(350) = .025$</td>
<td>0%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>Fanship</td>
<td>$p = .098$</td>
<td>t(1, 350) = 1.65</td>
<td>$\beta(350) = .096$</td>
<td>.8%</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>Fanship</td>
<td>$p = .036$</td>
<td>t(1, 350) = 2.10</td>
<td>$\beta(350) = .119$</td>
<td>1.2%</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>Fanship</td>
<td>$p = .012$</td>
<td>t(1, 350) = 2.52</td>
<td>$\beta(350) = .140$</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Significance was not found for the effect of general sport fanship on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a high level of rivalry), $F(3, 350) = 1.61, p = .005$, accounting for .5 percent of the variance. When looking at table 4.19 (above), it can be seen that the relationship between general sport fanship and enjoyment was significant for levels three ($\beta(350) = .119, p = .036$) and four ($\beta(350) = .140, p = .012$). The data from conditions three and four show that as general sport fanship increases, enjoyment also increases when UA is receiving hits from AU. The t values presented in table 4.19 indicate that the relationship between the individual condition and fanship grows stronger as the level of violence increases.
Research Question 5 (RQ5)

Research Question 5 (RQ5) asked to what extent fan (or spectator) identification would affect self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? The researcher conducted multiple repeated measures ANCOVA tests with a covariate that looked at the home team receiving and delivering hits of varying levels of violence. To aid in exploring the variances in effect on enjoyment between receiving and delivering hits along with fan identification, the researcher has chosen to break RQ5 into four distinct tables.

Table 4.20
RQ5A: Outcome Variable: Enjoyment / Predictor Variable: Fan Identification

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvSM1</td>
<td>Fan ID</td>
<td>p = .005</td>
<td>t(1, 347) = 2.80</td>
<td>β(347) = .209</td>
<td>2.2%</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>Fan ID</td>
<td>p = .716</td>
<td>t(1, 347) = .364</td>
<td>β(347) = .027</td>
<td>0%</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>Fan ID</td>
<td>p = .838</td>
<td>t(1, 347) = -.204</td>
<td>β(347) = -.015</td>
<td>0%</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>Fan ID</td>
<td>p = .001</td>
<td>t(1, 347) = -3.92</td>
<td>β(347) = -.310</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of fan identification on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a low level of rivalry), $F(3, 347) = 13.9, p = .001$, accounting for 3.9 percent of the variance. When looking at table 4.20 (above), it can be seen that the relationship between fan identification and enjoyment was significant on the individual condition level for levels one ($β(347) = .209, p = .005$), and level four ($β(347) = -.310, p = .001$). Although the overall mean scores indicate enjoyment was found to increase as violence increased, the $t$ values presented in table 4.20
indicate that the strength of the relationship between enjoyment and fan identification also decreased as the variable for perceived violence is taken into account.

Table 4.21
RQ5B: Outcome Variable: Enjoyment / Predictor Variable: Fan Identification

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA v AU 1</td>
<td>Fan ID</td>
<td>p = .767</td>
<td>t(1, 358) = -.296</td>
<td>β(358) = -.022</td>
<td>0%</td>
</tr>
<tr>
<td>UA v AU 2</td>
<td>Fan ID</td>
<td>p = .057</td>
<td>t(1, 358) = -1.91</td>
<td>β(358) = -.150</td>
<td>1%</td>
</tr>
<tr>
<td>UA v AU 3</td>
<td>Fan ID</td>
<td>p = .003</td>
<td>t(1, 358) = -3.00</td>
<td>β(358) = -.229</td>
<td>2.5%</td>
</tr>
<tr>
<td>UA v AU 4</td>
<td>Fan ID</td>
<td>p = .039</td>
<td>t(1, 358) = -2.06</td>
<td>β(358) = -.162</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Significance was not found for the effect of fan identification on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry), F(3, 358) = 2.48, p = .059, however significance was found on the individual condition level. When looking at table 4.21 (above), it can be seen that the relationship between fan identification and enjoyment was significant for condition levels three (β(358) = -.229, p = .003) and four β(358) = -.162, p = .039). This data shows a trend that as fan identification decreases, enjoyment also decreases when UA is hitting AU. The t values presented in table 4.21 indicate a strong, negative relationship between the individual condition and enjoyment at levels three and four.
Table 4.22
RQ5C: Outcome Variable: Enjoyment / Predictor Variable: Fan Identification

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMvUA1</td>
<td>Fan ID</td>
<td>p = .021</td>
<td>t(1, 360) = -2.31</td>
<td>β(359) = .210</td>
<td>1.5%</td>
</tr>
<tr>
<td>SMvUA2</td>
<td>Fan ID</td>
<td>p = .035</td>
<td>t(1, 360) = 2.12</td>
<td>β(359) = -.027</td>
<td>1.2%</td>
</tr>
<tr>
<td>SMvUA3</td>
<td>Fan ID</td>
<td>p = .029</td>
<td>t(1, 360) = -2.18</td>
<td>β(359) = .156</td>
<td>1.3%</td>
</tr>
<tr>
<td>SMvUA4</td>
<td>Fan ID</td>
<td>p = .374</td>
<td>t(1, 360) = 2.13</td>
<td>β(359) = -.89</td>
<td>.2%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of fan identification on enjoyment within the current model (when an Alabama player receives hits of varying levels of violence from a team with a low level of rivalry), $F(3, 360) = 7.25, p = .001$, accounting for 2 percent of the variance. When looking at table 4.22 (above), it can be seen that the relationship between fan identification and enjoyment was significant for levels one ($β(359) = .210, p = .021$), two ($β(359) = -.027, p = .035$) and three ($β(359) = .156, p = .029$), but was not found to be statistically significant at level four. The data shows that for two of the three conditions that are statistically significant, as fan identification decreases enjoyment also increases. The t values presented in table 4.22 indicate a strong, negative relationship between the individual condition and enjoyment; however, the relationship slightly weakens as the level of violence increases.

Table 4.23
RQ5D: Outcome Variable: Enjoyment / Predictor Variable: Fan Identification

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>Fan ID</td>
<td>p = .758</td>
<td>t(1, 349) = -.308</td>
<td>β(349) = -.025</td>
<td>0%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>Fan ID</td>
<td>p = .749</td>
<td>t(1, 349) = -.320</td>
<td>β(349) = -.025</td>
<td>0%</td>
</tr>
</tbody>
</table>

89
Significance was found for the effect of fan identification on enjoyment within the current model (when an Alabama player receives hits of varying levels of violence from a team with a high level of rivalry), $F(3, 349) = 4.76, p = .003$, accounting for 1.3 percent of the variance. When looking at table 4.23 (above), it can be seen that the relationship between fan identification and enjoyment was only significant for level four ($\beta(349) = -261, p = .001$). The data trend from all conditions shows that as fan identification decreases, enjoyment increases when AU is receiving hits from AU. The $t$ values presented in table 4.23 indicate that the relationship between the individual condition and fanship grows stronger as the level of violence increases.

Research Question 6 (RQ6)

Research Question 6 (RQ6) asked to what extent will media consumption rates affect knowledge of CTE? The researcher conducted a Pearson correlation test to examine the relationship between media consumption rates and the viewer’s knowledge of CTE. As seen in the correlation table below (Table 4.24), it is evident that the correlation showed a weak, but negative relationship and was not found to be significant ($p>.05$). Therefore, it cannot be assumed that media consumption increase knowledge of CTE.

Table 4.24

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>Pearson’s Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media Consumption</td>
<td>Knowledge of CTE</td>
<td>-.023</td>
<td>.669</td>
</tr>
</tbody>
</table>
Research Question 7 (RQ7)

Research Question 7 (RQ7) asked to what extent knowledge of CTE affected self-reported levels of enjoyment after exposure to plays ranging from high to low levels of perceived violence? The researcher conducted multiple repeated measures ANCOVA tests that looked at the home team receiving and delivering hits of varying levels of violence. To aid in exploring the variances in impact on enjoyment between receiving and delivering hits along with knowledge of CTE, the researcher has chosen to break RQ7 into four distinct tables.

Table 4.25
RQ7A: Outcome Variable: Enjoyment / Predictor Variable: Knowledge of CTE

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAvSM1</td>
<td>Knowledge</td>
<td>p = .001</td>
<td>t(1, 345) = 3.87</td>
<td>β(345) = .335</td>
<td>4.2%</td>
</tr>
<tr>
<td>UAvSM2</td>
<td>Knowledge</td>
<td>p = .034</td>
<td>t(1, 345) = 2.13</td>
<td>β(345) = .183</td>
<td>1.3%</td>
</tr>
<tr>
<td>UAvSM3</td>
<td>Knowledge</td>
<td>p = .459</td>
<td>t(1, 345) = .742</td>
<td>β(345) = .065</td>
<td>.2%</td>
</tr>
<tr>
<td>UAvSM4</td>
<td>Knowledge</td>
<td>p = .023</td>
<td>t(1, 345) = -2.28</td>
<td>β(345) = -.215</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of knowledge of CTE on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a low level of rivalry), $F(3, 345) = 11.68, p = .001$, accounting for 3.3 percent of the variance. When looking at table 4.25 (above), it can be seen that the relationship between knowledge of CTE and enjoyment was significant on the individual condition level for levels one ($β(345) = .335, p = .001$), two ($β(345) = .183, p = .034$), and level four ($β(345) = -.215, p = .023$). Although the overall mean scores indicate enjoyment was found to increase as violence increased, the t values presented in table 4.25 indicate that the strength of the relationship between enjoyment and knowledge of CTE decreased as the variable for perceived violence is taken into account.
Table 4.26
RQ7B: Outcome Variable: Enjoyment / Predictor Variable: Knowledge of CTE

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA v AU1</td>
<td>Knowledge</td>
<td>$p = .063$</td>
<td>$t(1, 357) = 1.86$</td>
<td>$\beta(357) = .167$</td>
<td>1%</td>
</tr>
<tr>
<td>UA v AU2</td>
<td>Knowledge</td>
<td>$p = .674$</td>
<td>$t(1, 357) = .421$</td>
<td>$\beta(357) = .039$</td>
<td>0%</td>
</tr>
<tr>
<td>UA v AU3</td>
<td>Knowledge</td>
<td>$p = .081$</td>
<td>$t(1, 357) = -1.75$</td>
<td>$\beta(357) = -.161$</td>
<td>.9%</td>
</tr>
<tr>
<td>UA v AU4</td>
<td>Knowledge</td>
<td>$p = .052$</td>
<td>$t(1, 357) = -1.94$</td>
<td>$\beta(357) = -.183$</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of knowledge of CTE on enjoyment within the current model (when an Alabama player delivers hits of varying levels of violence to a team with a high level of rivalry), $F(3, 357) = 6.715, p = .001$; however, significance was not found on the individual condition level. When looking at table 3.26 (above), it can be seen that although not statistically significant, there is a negative relationship between knowledge of CTE and enjoyment. This data shows a trend that as knowledge of CTE decreases, enjoyment increases when UA is hitting AU.

Table 4.27
RQ7C: Outcome Variable: Enjoyment / Predictor Variable: Knowledge of CTE

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>$t$ Value</th>
<th>$\beta$ Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM v UA1</td>
<td>Knowledge</td>
<td>$p = .587$</td>
<td>$t(1, 358) = .544$</td>
<td>$\beta(358) = .052$</td>
<td>.1%</td>
</tr>
<tr>
<td>SM v UA2</td>
<td>Knowledge</td>
<td>$p = .116$</td>
<td>$t(1, 358) = 1.57$</td>
<td>$\beta(358) = .132$</td>
<td>.7%</td>
</tr>
<tr>
<td>SM v UA3</td>
<td>Knowledge</td>
<td>$p = .787$</td>
<td>$t(1, 358) = -.270$</td>
<td>$\beta(358) = -.024$</td>
<td>0%</td>
</tr>
<tr>
<td>SM v UA4</td>
<td>Knowledge</td>
<td>$p = .281$</td>
<td>$t(1, 358) = -1.07$</td>
<td>$\beta(358) = -.091$</td>
<td>.3%</td>
</tr>
</tbody>
</table>
Significance was not found for the effect of knowledge of CTE on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a low level of rivalry), $F(3, 358) = 1.98, p = .114$, accounting for .6 percent of the variance. When looking at table 4.27 (above), it can also be seen that significance was not found on the individual condition level. The t values presented in table 4.27 indicate a negative relationship between the individual condition and enjoyment when SM is hitting UA.

Table 4.28  
*RQ7D: Outcome Variable: Enjoyment / Predictor Variable: Knowledge of CTE*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Covariate</th>
<th>Significance</th>
<th>t Value</th>
<th>β Score</th>
<th>Percent of Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUvUA1</td>
<td>Knowledge</td>
<td>$p = .002$</td>
<td>$t(1, 347) = 3.13$</td>
<td>$\beta(347) = .295$</td>
<td>2.8%</td>
</tr>
<tr>
<td>AUvUA2</td>
<td>Knowledge</td>
<td>$p = .428$</td>
<td>$t(1, 347) = .794$</td>
<td>$\beta(347) = .073$</td>
<td>.2%</td>
</tr>
<tr>
<td>AUvUA3</td>
<td>Knowledge</td>
<td>$p = .432$</td>
<td>$t(1, 347) = .786$</td>
<td>$\beta(347) = .071$</td>
<td>.2%</td>
</tr>
<tr>
<td>AUvUA4</td>
<td>Knowledge</td>
<td>$p = .608$</td>
<td>$t(1, 347) = -.513$</td>
<td>$\beta(347) = -.045$</td>
<td>.1%</td>
</tr>
</tbody>
</table>

Significance was found for the effect of knowledge of CTE on enjoyment within the current model (when an Alabama player receives a hits of varying levels of violence from a team with a high level of rivalry), $F(3, 347) = 5.39, p = .001$, accounting for 1.5 percent of the variance. When looking at table 4.28 (above), it can be seen that the relationship between knowledge of CTE and enjoyment was only significant for level one ($\beta(347) = .295, p = .002$). Although only one condition is statistically significant, the data trend from all conditions show that as knowledge of CTE decreases, enjoyment increases when UA is receiving hits from AU.
Model Building

A review of the previous seven research questions resulted in four models that only display the variables that were significant predictors of enjoyment at the various levels of violence. Each of the below tables (tables 4.29, 4.30, 4.31 and 4.32) represents a singular level of violence. The beta value, representing the strength of the relationship between the covariate and enjoyment can be found to the left of each condition. The number preceding the beta value corresponds to the number given to each covariate. For example, \( \beta(350) = -0.192 \) written in black would represent the relationship between (1) Home Team Disposition and enjoyment at the black (UAuSM1) condition level.

For reference in the following tables, the condition name can be deciphered as team delivering hit (for example UA or AU), team receiving hit (UA or AU), and level of violence (1 - 4 with 1 = Not Violent, 2 = Intermediate Levels of violence, 3 = Violent without head-to-head impact, and 4 = Violent with head-to-head impact). For example, UAuAU1 would represent an Alabama player delivering the hit to an Auburn player at the lowest level of violence.

*Table 4.29*
The below visual represents all significant relationship at p<.05 or higher for all variables at the condition level representing non-violent plays.

Table 4.30
The below visual represents all significant relationship at p<.05 or higher for all variables at the condition level representing plays with intermediate levels of violence.
Table 4.31
The below visual represents all significant relationship at p<.05 or higher for all variables at the condition level representing violent plays without head-to-head impact.

Table 4.32
The below visual represents all significant relationship at p<.05 or higher for all variables at the condition level representing violent plays with head-to-head impact.
CHAPTER FIVE

DISCUSSION

Media attention of the long-term injuries associated with playing American football has increased over the past four years (Burke, 2013) with the coverage of the ongoing litigation between current and former NFL players and the league itself. This media attention has brought with it a new awareness to the parents of young athletes of the potential dangers of receiving continual concussive and subconcussive blows to the head. Previous research in sport media entertainment has looked at numerous deciding factors that cause sport fans to consume and enjoy mediated sport; however, this specific study has explored the level of enjoyment that a spectator incurs from viewing hits of varying levels of violence following the years of media attention toward CTE. This study began by testing several of the variables that have proven to manipulate enjoyment in mediated sport viewing in studies done prior to the media attention of CTE to see if they still impact enjoyment in the same way. Next, this dissertation analyzed the sport media consumption of its participants to see if there was any correlation between media use and increased knowledge of CTE. Lastly, this study analyzed each covariate to see if there was an impact on enjoyment at varying levels of violence to see how the individual variables may have changed following the increased knowledge of long-term effects of playing American football. Overall, this dissertation helps to lay the groundwork for empirically examining the impact of sporting violence on enjoyment of mediated sport viewing as knowledge of long-term injuries continues to increase in the sport viewing culture.
This chapter will explore the results of the study and discuss both practical and theoretical implications based on the findings of the data analysis. The chapter will be separated into four sections beginning with an outline of the results. Secondly, the researcher will discuss the theoretical implications of this study and its contributions to both sport enjoyment and crisis communication literature. The third section will define the dissertation’s practical implication for public relations practitioners. The final section of this chapter will discuss the limitations of this study and the direction of future research that should be explored surrounding the enjoyment of sporting violence and crisis communication in sport.

Summary of Results

The subjects recruited to participate in this study were largely from communication and health sciences schools at a large, public, Southeastern university. The demographic that made up the largest portion of respondents were white females. This demographic represents the general demographic of the recruitment pool in the schools that were recruited for the survey. The mean age of participants was 19.73 years old. The mean level at which the subjects self-reported being fans of their university’s teams was 5.74 out of a possible 7, which indicates an overall high level of identification. The mean general fanship level of the respondents was 4.43, which also indicates a high level of general sport interest among the research participants. Although two-thirds of the sample population was made up of female participants, males and females have been shown to have similar levels of fandom (Clark, Apostolopoulou, & Gladden, 2009; Dietz-Uhler, Harrick, End, & Jacquemotte, 2000). University students also have a definitive connection to their home institutions sports teams, and a higher than average level of
identification which aids in the appropriateness of this sample. The respondents also reported consuming the largest amount of their sport media daily through social media.

All of the scales used by the researcher were analyzed for reliability using Cronbach’s alpha. A reliability analysis revealed that each scale used in the study measured at $\alpha = .82$ or higher, which is above the acceptable level of $\alpha = .80$. A full list of scale reliabilities can be seen in the results section of this study.

The main goal of this study was to determine how the enjoyment of violent hits in mediated sport is affected by knowledge of CTE and perceived on-field violence, and to report relevant information on the overall enjoyment and future potential supportive behavior of sport media spectators. To fully test the researcher’s hypotheses and answer the research questions, this study examined several of the variables previously found to be indicators of enjoyment as well as a new variable (knowledge of CTE) to learn how the variables impact enjoyment of mediated sporting violence following the increased awareness of the long-term effects of playing football.

The overall mean enjoyment for each condition level as can be seen in chapter four increase as violence increases except in the conditions for high levels of violence when the home team was hitting the team with high level of rivalry, and also when the home team was getting hit by a team with a low level of rivalry. Therefore, there is not a linear relationship between enjoyment and violence at all conditions. All of the level four hits were ranked higher in enjoyment than all level two hits; however, they were not ranked higher than all level three hits. This indicates a point of diminishing return for the impact of violence on enjoyment for certain conditions, but not all conditions.
As seen from the models in chapter four, there are many significant connections between the impact of the differing variables and the condition level on enjoyment. The most connections can be seen on levels one and four of violence. This leads the researcher to conclude that a wider range of spectators will enjoy viewing the sport at intermediate levels of violence than at extremely low or extremely high levels of violence. Another conclusion that can be assumed from the models is that fandom plays a large role in the enjoyment of plays with extremely high and extremely low levels of violence. This could be due to the fact that a fan of a certain team should be found to enjoy simply watching their team play, no matter the level of violence, and individuals that are simply watching a game of football desire to see a game that is moderately violent, but is not extremely violent or non-violent toward either team.

This study first examined the relationship between enjoyment and violence when the home team delivers a violent hit verses when the home team receives violent hits. Analysis of the data shows that, overall, fans experienced higher levels of enjoyment when the home team received violent hits (that included head-to-head impact) from opponents with high levels of rivalry than when the home team delivered violent hits (that included head-to-head impact) to opponents with high levels of rivalry. Further analysis revealed that the inverse is true when looking at hits against teams with a lower level of rivalry. Overall, enjoyment increased as violence increased when teams with high levels of rivalry delivered hits to the home team as well as when the home team delivered hits to teams with low levels of violence. Enjoyment increased to level three violence (violent without head-to-head impact), but dropped at level four violence (violent with head-to-head impact) when the home team delivered hits to teams with a high level of rivalry, and when the home team received hits from teams with a low level of rivalry.
The survey allowed the researcher to examine the effect of different covariates on enjoyment at varying condition levels (violence and rivalry). The researcher found that when accounting for home team disposition, the strength of the relationship between the individual condition level and enjoyment is strongest at higher levels of violence across all significant condition levels except for cases when a low level rival delivers hits to the home team. Results also showed a weak, but positive relationship between home team disposition and enjoyment in that as home team disposition increases, enjoyment also increases.

The results revealed that when accounting for disposition toward opponent, the strength of the relationship between the individual condition level and enjoyment is strongest at lower levels of violence across all significant condition levels. Results also showed a weak, but positive relationship between disposition toward opponent and enjoyment except in the individual condition where a team with high level of rivalry delivers a violent (head-to-head) impact with the home team player. Counterintuitive to what may have been previously thought, this research showed that in the majority of scenarios on the field of play, as a spectator’s disposition toward opponent increased, enjoyment also increased; however, when a strongly disliked team violently hits a home team player, there is a negative relationship between enjoyment and disposition.

When accounting for perceived level of rivalry, the strength of the relationship between the individual condition level and enjoyment is strongest at lower levels of violence across all significant condition levels except when the home team was receiving hits from a team with a high level of rivalry. Unsurprisingly, the results also showed a positive relationship between perceived level of rivalry and enjoyment in that as the perception of rivalry increased, enjoyment also increased.
Results also indicated that when accounting for general sport fanship, the strength of the relationship between the individual condition level and enjoyment is strongest at higher levels of violence across all significant condition levels except when the home team received hits from a team with a low level of rivalry. Confirming previous research, the results also showed a positive relationship between sport fanship in general and enjoyment in that as the spectator’s general fanship increased, enjoyment of viewing various levels of violence also increased.

The results revealed that when accounting for fan identification, the strength of the relationship between the individual condition level and enjoyment was strongest (and generally negative) at higher levels of violence across all significant condition levels. The exception to this finding was found when the home team received hits from a team with a low level of rivalry. For example, this finding shows that in general as violence increased, the relationship between fan identification and enjoyment had a greater chance of being negative. Results also showed an overall negative relationship between fan identification and enjoyment. The only significant conditions with positive relationships between fan identification and enjoyment came when the home team delivered and received hits to/from teams with low levels of rivalry.

Lastly, when accounting for the spectator’s knowledge of CTE, the strength of the relationship between the individual condition level and enjoyment was strongest at lower levels of violence across all significant condition levels. Results also showed a positive relationship between knowledge of CTE and enjoyment at conditions with lower levels of violence and a negative relationship between knowledge of CTE and enjoyment for conditions with higher levels of violence. This shows that as knowledge of CTE increased, enjoyment was also found to decrease in spectators viewing high levels of violence including head-to-head impact.
This survey was also used to analyze the relationship between perceived level of rivalry and perceived level of violence. Overall, the results show that there is a significant positive relationship between these two variables. Another relationship explored using this survey was the relationship between knowledge of CTE and consumption of mediated sport. The results showed that there was a weak relationship that was not found to be significant (p>.05). Therefore, it cannot be assumed that media consumption increased or decreased knowledge of CTE.

Given the nature of the present study and the lack of empirical evidence to guide outcomes when all variables were considered, the following study yielded some surprising findings. One finding that was surprising was the increased enjoyment when the home team received violent hits from teams with high level of rivalry, but a drop of enjoyment when the home team delivered hits violent hits to teams with high levels of rivalry. As the researcher will explain later in the discussion section, this could be caused by moral judgment by the spectator. Enjoyment can increase as the home team fan judges the rival team for extremely violent and illegal hits; however, the home team fans could experience a drop in enjoyment when they are forced to morally judge their own players because of acts of deviance on the field. This could also be caused by the gender bias presented in the participant sample. Although recent sport-media studies in both perceived violence (Raney & Kinnally, 2009) and suspense (Peterson & Raney, 2008) have failed to support gender differences in the enjoyment of these variables, it has been shown that men and women consume sports media in different ways and for different reasons, therefore if a participant sits in front of a computer alone and views a string of plays of varying levels of violence the effect of gender could have a greater impact on the survey results.

A second finding that was surprising was the lack of evidence showing that media consumption had any effect on knowledge of CTE. The variable for knowledge of CTE was
shown to significantly impact the enjoyment of viewing violent hits in sport, however more research is needed to determine how the participants knowledge of this issue increased. The increased knowledge on this topic could have come from word of mouth. As a topic becomes more prevalent throughout a culture or society, the rate at which the topic is talked about increases. This being said, a large portion of the study participants could have been informed through channels other than the media.

A third finding that was interesting was the effect of level of rivalry on the variables. For example, when disposition toward opponent was examined, the present study found that fans disposition toward the opponent increased until the hits and rivalry reached extremely high levels. This shows that fans can continue to like an opponent even if the level of rivalry is high until an extremely violent hit occurs. This could be due to the fact that on-the-field violence is acceptable and expected by sport fans until a certain level of violence. This finding could also be influenced by previous experience with the opponent. If the opponent has a history of delivering illegal hits or “cheap shots” to competitors, perception of violence could be heightened prior to any hits being delivered.

**Theoretical and Practical Implications**

The current study contributes to the empirical research and provides new insight to the importance of the changing view of violence in mediated sport enjoyment. As previously stated in the section covering the significance of this dissertation, this section aims to do three things:

- Add to the growing body of spectator disposition and sport crisis communication literature.
• Add empirical evidence to the investigation of knowledge of CTE and perceived violence in entertainment enjoyment research

• Provide future researchers and practitioners with information concerning the potential shift of an established paradigm in the enjoyment of sport entertainment

**Implications for Disposition Theory of Sport Spectatorship:** This dissertation both confirms previous findings, contradicts previous findings and adds new variables and insight into variables that have been previously noted to contribute to enjoyment of sport entertainment. According to Raney (2006) the DTSS states that the overall enjoyment of viewing sport entertainment media is a reflection of the spectator’s disposition toward the teams or players competing and the results of outcome of the event. Throughout the current study’s findings, the previous model set forth in the DTSS of predicting enjoyment does not always hold true. Raney (2006) admits that previous findings show that there are a myriad of factors that must be measured, each of which are measured on individual continuums, to discover the true reasoning behind enjoyment in viewing mediated sport. This study has shortened the length of the “event” described by Raney (2006) in his description of the way that DTSS predicts enjoyment to the length of a single play. Much like the study done by researchers Bryant, Comisky, and Zillmann (1981), this study makes the assumption that when only viewing a single play, the survey respondents have the same emotional responses as they would have had they watched the entire game. When viewing a single play rather than an entire game, the viewer should therefore view the play as the event, and therefore should have feelings of varying levels of enjoyment based on the outcome of the play.
Previous research in the area of spectator disposition and enjoyment indicates that sports fanship in general is an important variable in the enjoyment of sports media (Gantz & Wenner, 1991, 1995). The current study confirmed previous research on this variable, and indicated that there is in fact a positive relationship between sport fanship in general and enjoyment. The current study also found that the strength of the relationship between the two variables is strongest at highest levels of violence when the home team is delivering hits to the opponent. Based on the framework of the schema theory presented by Raney and Kinnally (2009), it is fair to assume that spectators who enjoy consuming sport media will have a larger knowledge base surrounding sport. This increased knowledge base that comes with high levels of general sport fanship could cause respondents with an increased knowledge of sports to have higher levels of enjoyment when watching their team deliver violent hits rather than receiving violent hits.

Another variable of interest that has been researched thoroughly in previous sport enjoyment research is perceived level of rivalry. Raney and Depalma (2006) note that suspense is a major factor in the enjoyment of mediated sport, and that perceived level of rivalry is a key variable in the suspense associated with each event. The current study found mixed results concerning previous findings on importance of rivalry. Unexpectedly, when looking at the overall mean associated with each condition, home team fans experienced higher levels of enjoyment when the home team received extremely violent hits from opponents with high levels of rivalry than when the home team delivered extremely violent hits to opponents with high levels of rivalry. The current study also found that enjoyment increased to level three violence (violent without head-to-head impact), but dropped at level four violence (violent with head-to-head impact) when the home team delivered hits to teams with a high level of rivalry, and when the home team received hits from teams with a low level of rivalry. Viewing the finding of the
current study, it is evident that rivalry does not factor evenly into enjoyment across varying levels of violence. The mixed results could result from the newly implemented NCAA ranking system. This new system is comprised of a 13-member selection committee that ranks each team weekly based on the current week’s performance. With this type of ranking system, winning each week matters more than it may have in previous years and therefore every competitor’s level of rivalry could be seen to change from week-to-week.

The dissertation both confirmed and provided new insight into previous findings related to spectator dispositions. Previous findings surrounding dispositions of sport spectators state that as disposition for the home team increases and disposition toward the opponent decreases, enjoyment should then rise or fall with the outcome of the event. The findings of this study show a positive relationship between home team disposition and enjoyment as the level of violence increases. This could be attributed to relationship between fan identification and disposition, which as explained in the literature review results in an “us” vs. “them” mentality and a rallying effect around the home team. If this were the case, it would make sense to assume that as the level of violence increases, the desire to rally around your own team would also increase. A related finding of the current study showed that as the level of violence increases, the positive relationship between spectator disposition toward opponent and enjoyment weakens. In the condition exploring a team with a high level of rivalry violently hitting a home team player, there is a strong, negative relationship between enjoyment and disposition. This shows that in most cases, enjoyment increased as disposition toward home team and opponent increased; however if the violence toward the home team reaches extreme levels, enjoyment may still increase, but disposition toward away team will have a negative relationship. This negative relationship between opponent disposition and enjoyment at high levels of rivalry and violence could be
caused by moral judgment of the spectator. As discussed in the literature review, the original affective disposition theory and early stages of DTSS considered moral judgments of the viewer to be incredibly important in dispositional affiliations with certain characters or individuals within a narrative or event. The idea of moral judgment could explain this finding by allowing the researcher to see into the cognitive processes of the spectator. If a home team player is hit with excessive violence and no injury is reported (the plays viewed by the respondents ended immediately following the contact and therefore did not show any injury), enjoyment can still increase because the viewer can morally judge the opposing team and celebrate the player that received the hit. This could also explain the drop in enjoyment when the home team delivers an extremely violent hit to an opponent with a high level of rivalry because the spectator is forced to morally judge his or her home team players.

In previous research, fan identification has been found to be a key variable when exploring dispositions of sport spectators. Wann (2006) suggests in previous research that fan identification is a useful independent variable to explore spectator dispositions toward teams or players, and potential supportive behaviors. This variable has also been found to be important in sport enjoyment research because sport fans do not simply view themselves as spectators, but rather as active participants in the game itself (Novak, 1976). Because previous research has not examined the relationship of fan identification and enjoyment across varying levels of violence, the findings of the present study neither contradicted nor confirmed previous research. This dissertation discovered a relationship between fan identification and enjoyment that was overall positive at low levels of violence and negative at higher levels of violence. The only significant conditions with positive relationships between fan identification and enjoyment came when the home team was delivering and receiving hits to/from teams with low levels of rivalry.
As previously noted, the complexity of the spectator’s disposition in regard to sport viewing is a field of research that is being advanced by the maturation of the current theoretical framework. As the current theory matures and advances, more complex factors are being added to the equation of what may or may not potentially play a key role in the process of reaching a measurable level of enjoyment. A new variable that was added in this study to aid in the exploration of spectator disposition and enjoyment of mediated violence following the increased knowledge of long-term injuries related to contact sports was knowledge of CTE. Results show that knowledge of CTE had an interesting impact on enjoyment. The current study revealed a positive relationship between knowledge of CTE and enjoyment at conditions with lower levels of violence and a negative relationship between knowledge of CTE and enjoyment for conditions with higher levels of violence. This shows that as knowledge of CTE increases, enjoyment should be found to decrease in spectators viewing high levels of violence including head-to-head impact. This shows that although the relationship between knowledge of CTE and media consumption was not significant, spectators who had higher levels of knowledge surrounding long-term injuries in football were less likely to enjoy viewing extremely hard hits. Previous research (Bryant, Brown, Comisky & Zillmann, 1982; Raney & Kinnally, 2009) on this topic has continually found a strong positive relationship between perception levels of violence and greater spectator enjoyment. Not only does this dissertation not confirm those findings, but by adding a new variable to explore this field, it could potentially set the stage for a change in previous paradigms when viewing sport violence and enjoyment. The key findings associated with knowledge of CTE form a baseline for a new line of research in the exploration of mediated sport enjoyment as the sporting culture becomes more aware of potential dangers associated with playing contact sports.
Implications for Situational Crisis Communication Theory: Although the findings of the current dissertation do not directly allow the researcher to draw implications for Coombs’ SCCT (2011), the findings do contribute to the empirical evidence of a potential crisis of enjoyment facing the NFL. Considering the fact that Coombs SCCT has not been used to investigate a crisis facing an overarching sport league, the current findings provide a new context for investigation using SCCT. As previously stated in the introduction to this dissertation, the continuous flood of mediated sporting news offers a unique risk for crisis situations in the realm of sport. Previous sport crisis literature offers insight into multiple on and off the field crisis situations; however, no previous study directly examines the crisis that is associated with loss of enjoyment through entertainment due to an organizational sporting crisis. This gap in research along with the findings of the current study provide a baseline that supports the use of SCCT to empirically examine organizational crisis communication concerning enjoyment in major sport leagues.

Implications for Public Relations Practitioners: Although this dissertation is not the first to examine sporting violence and its impact on spectator enjoyment, it is the first study to examine this relationship following the increased awareness of long-term injuries associated with playing extreme contact sports. Because of this fact, it is important for the researcher to not propose exorbitant generalizations based on the findings of a single study. The current study does however allow the researcher to draw several implications for public relations practitioners in the field of sport. The key findings that allow for the researcher to draw implications for public relations practitioners are based around two main variables:
Fan Identification: When exploring the industry of sport entertainment media, it is important for public relations practitioners to understand that it is a field that is continually growing and is backed by considerable contributions of time and money from individual fans (Michener, 1976). Because public relations practitioners create and maintain positive reputations for individuals and organizations (Fearn-Banks, 2007), in an industry where the majority of contributions come from fans or are received by leagues and organizations that have the strongest fan bases, it is infinitely important for practitioners to understand the power of fan enjoyment. Sport identification is a major component in the enjoyment equation when looking at sport entertainment media because research has shown that sport fans do not simply view themselves as spectators, but rather as active participants in the game itself (Novak, 1976). This dissertation discovered a relationship between fan identification and enjoyment that was overall positive at low levels of violence and negative at higher levels of violence. Because previous research has not examined the relationship of fan identification and enjoyment across varying levels of violence, it is hard to contribute this finding to any one factor; however, as knowledge of CTE increases, it is possible that this new variable impacts previously studied variables in unpredictable ways. As previously stated, when highly identified fans feel that their favored player or team is threatened by a crisis (long-term injury) that the player or team must be protected (Wann, 2006). This crisis would naturally result in a lack of enjoyment by the spectator. It is this crisis of enjoyment that is at the heart of this study and is a potential crisis facing practitioners in the field of public relations in sport. The potential crisis is not yet to a
tipping point, but practitioners should seek to prepare a list of best practices in the event that the crisis does come to fruition.

**Knowledge of CTE:** According to Wann (2006), fan identification theory posits that a fan’s level of psychological connection to the team and/or athlete and their performance has a direct relationship to the fan’s sport media consumption habits. Although the survey participants in the current study ranked high in fan identification, the findings did not confirm that knowledge of CTE has a positive relationship with media consumption. Whether through media consumption or word of mouth, it is understandable to assume that the increased media coverage of CTE and the dangers of long-term injuries associated with playing football have in some way impacted the views of the sporting culture in the United States. In his 2012 article on SCCT, Coombs noted that the continual increase of media coverage and growing ability of stakeholders (sport fans) to connect increases an organization’s risk of facing crises. This fact can be seen in the present study, as Burke (2013) noted that since the lawsuit was filed, media outlets of every shape and size have covered the physical effects of Chronic Traumatic Encephalopathy. The constant media coverage of a potential crisis-causing situation could have negative effects on the perceptions of stakeholders. The negative effects of stakeholder perceptions have been found to produce negative consequences to an organizations’ reputation including damaging effects to not only the credibility, but to the financial stability and market value of the entire organization (Brazeal, 2008; Stoldt, 2012). The negative perception of the organization is only formed when the responsibility or blame is attributed toward the organization. As you will read below, the current study finds that the potential of crisis responsibility does in fact fall on the league, justifying future crisis communication research in this area. The NFL as a sport is evolving so
quickly that it is resulting, potentially, into less enjoyment of their product. The evolution of the sport comes from the players becoming bigger and faster than ever before which increases the likeliness of an injury occurring. The level of enjoyment has not dropped to the level of a crisis for the NFL as of yet; however, as knowledge of CTE continues to increase, the potential for a crisis also increases. The crisis occurs when the ratings begin to drop. As ratings drop, financial instability to the league occurs. The findings of this study show that knowledge of CTE does in fact impact the enjoyment of extremely violent hits. If this is the case, as knowledge increases, so does the potential for a crisis. This is because a knowledge increases, and enjoyment decreases media consumption would likely decrease as well.

The current study found a positive relationship between knowledge of CTE and enjoyment at conditions with lower levels of violence and a negative relationship between knowledge of CTE and enjoyment for conditions with higher levels of violence. The conclusion that can be drawn from this finding is that individuals that have higher levels of knowledge concerning CTE receive less enjoyment as violence increases. This finding poses a unique threat to public relations practitioners who represent sporting leagues that are built around extreme levels of physical contact. According to Coombs (2007), a crisis is merely the perception of an unpredictable event that harms the expectations of stakeholders and has the potential to damage an organization’s performance and generate negative outcomes. This is not to say that crises are not expected to happen, but rather that the time at which a crisis occurs is generally unknown. Due to this unpredictable nature of crises, Coombs (2007) further categorized the management of crisis situations into pre-crisis, crisis response, and post-crisis. Pre-crisis refers to the time when an organization should be focused on both the prevention of future crisis and preparation for any possible foreseen crisis. This is the current crisis situation at which practitioners in the field of
football find themselves today. In a sport where violence reigns, early signs of loss of enjoyment by the spectators surrounding extremely violent hits sets the stage for a looming crisis. The findings of the current study justify the use of Coombs SCCT to be used in the examination of the current situation facing public relations practitioners in the industry of football and the NFL specifically.

**Limitations and Direction for Future Research**

Due to this study being an initial examination of enjoyment of sporting violence following the increased media coverage of long-term injuries associated with playing football, there are numerous opportunities for research that will help to solidify the findings in this new line of research. The current study does provide insight into the exploration of enjoyment of violent hits in mediated sport and the impact of knowledge of CTE; however, there are some limitations that need to be addressed.

The first limitation of note is the use of a convenience sample using college students. College students have been found to be a highly identified sample due to their proximity and relationship with their current institution; however, using this sample does effect generalizability to a wider population due to the demographics of the sample. For example, given the age and/or gender of this study’s sample, it is possible that identifications rates and perception of violence will be elevated higher than if the study would have used a more generalizable sample. Although this sample is not completely generalizable, convenience samples have been used in previous studies examining home team identification and sport violence enjoyment due to the sample’s proximity and engagement with the home team sports. When conducting an initial exploration of knowledge of CTE, the current sample that was used in this study was also appropriate because it
can be assumed that individuals with higher levels of general sport fanship and fan identification will have a higher than average knowledge of sports and consume greater amounts of sports media which has recently seen an influx in news concerning CTE. However, due to the limitations associated with the current sample, future research should ensure that a more generalizable sample would not impact the results. This could be done by the use of a university specific fan identification scale to ensure that the survey participant is a fan of the institution being tested. Also in regard to the current participants, the sample population also significantly more Caucasian, female participants as male participants, so a gender bias may have shifted the findings. Although males and females have been shown to have similar levels of fandom (Clark, Apostolopoulou, & Gladden, 2009; Dietz-Uhler, Harrick, End, & Jacquemotte, 2000), and both have been found to enjoy perceived violence in sport (Raney & Kinnally, 2009) in similar ways the current study’s results should be generalized with caution. A second limitation that would improve reliability is the fact that the current survey was not distributed in a laboratory setting, but was given online and therefore allowed the participant to answer the survey items in their natural setting. By allowing the participant to take the survey online, this reduces the control that the researcher has over the process of taking the survey. Another potential limitation of the current study is the uniqueness of each play in collegiate football. Although the video clips of the plays that were used as stimuli were carefully chosen by their level of violence and were pre-screened for false enjoyment indicators, it is not possible to replicate the exact on-field condition scenario for each stimuli.

When looking at potential theoretical limitations, it is important to note that DTSS is one of the most cited theories used to explore the enjoyment of mediated sport (Bryant & Raney, 2000; Zillmann,). At its most generalizable definition, DTSS makes the claim that enjoyment of
mediated sport is primarily a function of the individual spectator’s dispositions toward the competitors and the outcome of the contest. The complexity of the spectator’s disposition in regard to sport viewing is a field of research that is being advanced by the maturation of the current theoretical framework. As the current theory matures and advances, more complex factors are being added to the equation of what may or may not potentially play a key role in the process of reaching a measurable level of enjoyment. As cultural feelings towards previous variables change and media coverage of sport violence increases, new variables need to be added to the research being done to keep this theory up to date.

According to Raney (2006a) the exploration of disposition-based theories and factors that affect enjoyment of entertainment media is an ever-growing field of study, and research has shown that additional user inputs may be associated with disposition formation and maintenance. A main limitation with research based in sport enjoyment and disposition exploration is that these variables change over time, and therefore current findings must be updated to maintain relevancy.

Another limitation of note is the fact that the scales for knowledge of CTE were presented to the participants prior to the viewing of any of the stimuli and therefore could have caused priming to occur. If priming occurred, the participants would have been aware of the differing levels of violence and it could have caused their responses to be skewed.

Another limitation of note is the previous inability of researchers to settle on singular definitions of both enjoyment and violence. Sports enjoyment is an area of academic exploration that evolved out of the field of entertainment research. Although the literature surrounding the enjoyment of mediated entertainment is expansive, researchers have yet to define clearly the concept of media enjoyment (Green, Brock, & Kaufman, 2004; Nabi & Kremar, 2004; Raney,
2003), or the terms violence and aggression (for a comprehensive summary, see Raney & Kinnally, 2009). Future research should work to define these terms singularly across communications studies to create more generalizable results.

Another limitation of note is the fact that analyzing a hit that included head-to-head contact could make this type of on-field violence rank off the charts in relation to the other previously studied levels of violence. Hits that include head-to-head contact are illegal in any level of play and therefore could be perceived as being egregiously violent. Many hits that include this type of impact are not penalized because they do not occur in an open-field scenario. If a hit occurs at the line of scrimmage, there is almost always head-to-head impact; however, this is part of the accepted violence that occurs on the field-of-play, and could make the hits falling into this level of violence acceptable for this type of research.

While this study added to the previous list of key variables in the exploration of spectator disposition, sport enjoyment and perceived violence, it also provides new avenues from which to explore potential crises of enjoyment. Most significantly, more research is needed to validate and explore the relationship between knowledge of CTE and loss of enjoyment in viewing mediated sporting violence.

The current study was able to advance measures used to examine level of violence used by previous researchers (Bryant, Comisky & Zillman, 1981). Previous researchers have examined violence in sport using three degrees of violence (low, medium, high), but have excluded plays that potentially resulted in injuries to eliminate the potential enjoyment-impairing properties of pity or grief. The current study adapted the previous measure to include 4 categories (not violent, intermediate levels of violence, violent without head-to-head impact, and violent with head-to-head impact). By adapting the categories the researcher was able to use
clips that resulted in injuries to players. The plays that were viewed by the participants ended prior to showing any resulting injury; however, this allowed to researcher to show extremely violent plays and analyze participant’s emotional responses to a higher range of violent plays.

The implications drawn from the findings of the current study should also be used to create a list of necessary response strategies and best practices by the NFL. As previously noted, future research should use Coombs’ SCCT (2007) as the theoretical framework because many of the fundamental components of the potential NFL crisis work well with Coombs’ theoretical framework. According to Coombs (2007) SCCT affords organizations with the ability to conduct a two-step process to better understand the most beneficial response to combat the crisis. The first step to correctly choosing a response strategy is to understand the reputational threat that is brought about by the crisis situation. Step two requires an analysis and understanding of the past crisis history and prior reputation of the organization (Coombs, 2007). Past crisis history and prior reputation of the accused organization are two factors that stakeholders use to deliberate the organization’s responsibility of the crisis (Coombs & Holladay, 2001). For example, if a crisis arises that is found to fall into a low responsibility category, but the organization has a prior history or reputation of committing the same offense, the response from the organization may need to be one of a more intense nature than was previously assessed. Coombs and Holladay (2001) found that as the level of crisis responsibility intensifies, so should the use of more accommodating crisis communication strategies.

If a fan blames the organization for causing the initial stages of the potential crisis situation, practitioners could in fact employ SCCT. According to Coombs’ (2007) crisis typology, the accusation of misrepresentation of information, such as what has happened in the NFL, can be considered an organizational misdeed, which causes high levels of attribution of
Misrepresentation of information can be considered an organizational misdeed because the information that the players received concerning concussive and subconcussive blows to the head and their connection with long-term neurological damage was falsified came directly from the overarching organization of the NFL. Misrepresentation of information can also be considered an organizational misdeed because the stakeholders perceive it as an inappropriate operating manner based on moral or ethical grounds.

In his 2012 article on SCCT, Coombs noted that the continual increase of media coverage and growing ability of stakeholders to connect increases an organization’s risk of facing crises. This fact can be seen in the present study, as Burke (2013) noted that since the lawsuit was filed, media outlets of every shape and size have covered the physical effects of Chronic Traumatic Encephalopathy, also known as CTE. The constant media coverage of a potential crisis-causing situation could have negative effects on the perceptions of stakeholders. The negative effects of stakeholder perceptions have been found to produce negative consequences to an organizations’ reputation including damaging effects to not only the credibility, but to the financial stability and market value of the entire organization (Brazeal, 2008; Stoldt, 2012). The negative perception of the organization is only formed when the responsibility or blame is attributed toward the organization. Previous research by Coombs and Holladay (2006) also found that negative perceptions attributed to responsibility harms organizations financially due to a loss in stakeholder purchases and engagement. Crisis literature in the field of sport communication notes that not only can a crisis effect the reputation of an organization, but can also harm attendance at athletic events, and sponsorship revenue (Wilson, Stavros & Westberg, 2010). If crisis can harm attendance at an athletic event, it is logical to understand that it could also hinder mediated sport enjoyment, and therefore should be explored more thoroughly.
In an effort to avert the crisis of enjoyment before it occurs, practitioners could employ several action strategies including the use of new mandatory equipment on the field, the implementation of new rules that would deter such extremely violent plays, or they could also implement educational opportunities to families of players in leagues ranging from little league to professional leagues to spread the knowledge of the potential of CTE. If the practitioners associated with the NFL set forth a list of best practices to assure that the blame is not attributed toward the organization, then the crisis responsibility would be shifted from the organization to the players themselves. The responsibility of knowing the effects of long-term damage associated with hits to the head creates a level playing field for the league and the player because then the players are held responsible for the choices that they have made to play the sport. This could still result in lower ratings of the league, but without the responsibility of the crisis, the league is not held accountable.

**Conclusion**

"Change is the law of life and those who look only to the past or present are certain to miss the future."

- John F. Kennedy (June 25, 1963)

In the field of academic research it is not only important to look to previous and present research, but to look to potential future trends that could change an entire field of study. This dissertation has done just that. It has analyzed previous and present research, and has uncovered significant findings that point to future change in a culture. It is evident that the academic fields of disposition-based theories and factors impacting enjoyment of entertainment media are
constantly changing as the culture and knowledge surrounding them changes. The current dissertation in conjunction with previous research has shown that as sporting cultures change and social norms shift, additional variables must be added to current theoretical models. The addition of variables such as knowledge of CTE, and a new way of viewing enjoyment of mediated sporting violence is necessary to form generalizable results that can help form founded implications for future researchers and practitioners. A shift toward injury awareness is occurring in our culture that requires further investigation to predict enjoyment levels of spectators based on degree of sporting violence being viewed. Based on the findings of this dissertation, previous entertainment paradigms need to be updated and retested to reflect the generalizable majority, and new variables such as knowledge of CTE may impact the previous relationships that were once used to predict enjoyment. The current study resulted in significant initial findings in this new line of research that can be used to help researchers and practitioners in the fields of sport communication and public relations understand and better prepare themselves for the changing climate in the fields within which they work.
REFERENCES


APPENDIX A: SURVEY

The following are questions regarding individual enjoyment of sports media consumption. Please read each of the following items and circle the number that best reflects your agreement with the statement.

1. Gender

   (Male)  1       (Female)  2

2. Ethnicity

   White/Caucasian
   Black/African American
   Hispanic/Latino
   Asian/Pacific Islander
   Native American Indian
   Other

3. Age    __________

   Please read each of the following items and circle the number that best reflects your personal interest in sports in general using a 7-point scale from 1 (not at all) to 7 (extremely)

Table: 1.1
General Sport Fanship Scale: (Arpan & Raney, 2003; Arpan, Raney, & Zivnuska, 2003; Raney & Depalma, 2006)

4. How interested are you in sports in general?

   (Not at all)  1  2  3  4  5  6  7  (Extremely)

5. How interested are you in football?
(Not at all)  1  2  3  4  5  6  7  (Extremely)

6. How interested are you in basketball?

(Not at all)  1  2  3  4  5  6  7  (Extremely)

7. How interested are you in baseball?

(Not at all)  1  2  3  4  5  6  7  (Extremely)

8. How interested are you in reading sports magazines?

(Not at all)  1  2  3  4  5  6  7  (Extremely)

9. How interested are you in reading the sports page?

(Not at all)  1  2  3  4  5  6  7  (Extremely)

10. How interested are you in using the Internet to read about sports?

(Not at all)  1  2  3  4  5  6  7  (Extremely)

Table: 1.2
Sport media consumption rates:

11. Select the answer that best reflects the amount of time that you spend daily consuming sports media using each type of media.

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Time Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
<tr>
<td>Viewing live sports</td>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
<tr>
<td>Using social media to follow a team or consume info about a team</td>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
<tr>
<td>Online: Computer</td>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
<tr>
<td>Online: Smartphone</td>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
</tbody>
</table>
Radio

<table>
<thead>
<tr>
<th>Time Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
</tbody>
</table>

Newspaper

<table>
<thead>
<tr>
<th>Time Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
</tbody>
</table>

Magazine

<table>
<thead>
<tr>
<th>Time Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 hour; Between 1 and 2 hours; Between 2 and 3 hours; Between 3 and 4 hours; Between 4 and 5 hours; Greater than 5 hours</td>
</tr>
</tbody>
</table>

Table: 1.3
Football-playing/viewing history: (Gurhan-Canli, 2003; Algesheimer, Dholakia, & Hermann, 2005)

12. When compared to most people, I know about football.

   (Strongly Agree) 1  2  3  4  5  6  7  (Strongly Disagree)

13. I consider myself experienced with football.

   (Strongly Agree) 1  2  3  4  5  6  7  (Strongly Disagree)

14. I do not know about football (r)

   (Strongly Agree) 1  2  3  4  5  6  7  (Strongly Disagree)

15. My knowledge of football is inferior (r)

   (Strongly Agree) 1  2  3  4  5  6  7  (Strongly Disagree)

16. My knowledge of football is very good

   (Strongly Agree) 1  2  3  4  5  6  7  (Strongly Disagree)

17. I have played this football (Y/N)

   (Yes) 1   (No) 2
18. There is a higher risk of long-term problems if someone has a second concussion before recovering from the first one.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

19. People who have had one concussion are more likely to have another concussion.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

20. Symptoms of concussion can last for several weeks.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

21. Symptoms of concussion are usually gone after 10–14 days.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

22. Concussions can sometimes lead to emotional problems.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

23. Younger players (under the age of 18) typically take longer to recover from a concussion than adults.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

24. To be diagnosed with a concussion, you have to be knocked unconscious.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

25. A concussion can only occur if there is a direct hit to the head.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

26. After a concussion occurs, brain scans (e.g., CT scan, MRI) typically show damage (e.g., bruise, blood clot) to the brain.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)
27. There are few risks to long-term health and well being from multiple concussions.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

28. Receiving concussions can lead to overall mental deterioration with Parkinsonian symptoms.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

29. The long-term effects of concussions can lead to Chronic Traumatic Encephalopathy, also known as CTE.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

30. I have heard of CTE through sports media outlets.

(Strongly Agree) 1 2 3 4 5 6 7 (Strongly Disagree)

Table: 1.5

Sport Spectator Identification Scale: (Wann & Branscombe, 1993)

31. How important to you is it that the (team) wins?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

32. How strongly do you see yourself as a fan of the (team)?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

33. How strongly do your friends see you as a fan of the (team)?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

34. During the season, how closely do you follow the (team) via any of the following: a) in person or television, b) radio, or c) television news or a newspaper

(Not at all) 1 2 3 4 5 6 7 (Extremely)

35. How important is being a fan of the (team) to you?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

36. How much you dislike (your team’s) greatest rivals?

(Not at all) 1 2 3 4 5 6 7 (Extremely)
37. How often do you display the (your team’s) name or insignia at your place of work, where you live, or on your clothing?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

Table: 1.6
Personal Commitment to a Team (PCT) Scale items: (Mahony, Madrigal, & Howard, 2000)
38. I might think my allegiance to my favorite athlete is they consistently perform poorly.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
39. I would watch a game featuring my favorite (sport) team regardless of which team they are playing.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
40. I would rethink my allegiance to my favorite team if management traded away its best players.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
41. Being a fan of my favorite (sport) team is important to me.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
42. Nothing could change my allegiance to my favorite (sport) team.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
43. I am a committed fan of my favorite (sport) team

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
44. It would not affect my loyalty to my favorite (sport) team if management hired a head coach that I disliked very much.

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
45. I could easily be persuaded to change my favorite (sport) team preference

(Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)
46. I have been a fan of my favorite team since I began watching professional (sport).

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

47. I could never switch my loyalty from my favorite (sport) team even if my close friends were fans of another team.

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

48. It would be unlikely for me to change my allegiance from my current favorite (sport) team to another.

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

49. It would be difficult to change my beliefs about my favorite (sport) team

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

50. You can tell a lot about a person by their willingness to stick with a team that is not performing well.

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

51. My commitment to my favorite (sport) team would decrease if they were performing poorly and there appeared little chance their performance would change.

   (Strongly Disagree) 1 2 3 4 5 6 7 (Strongly Agree)

Table: 1.7
Perceived Violence Scale Item: (Raney & Kinnally, 2009)

52. How violent was this play

   (Not at all) 1 2 3 4 5 6 7 (Extremely)

Table: 1.8
Disposition toward Opposing Team: (Raney & Kinnally, 2009)

53. How much do you like [visiting team]
Table: 1.9  
Perceived Level of Rivalry: (Raney & Kinnally, 2009)

54. In your mind, how big a rivalry does [home team] have with the [opposing team]

(No Rivalry) 1 2 3 4 5 6 7 (Huge Rivalry)

Table: 1.10  
Enjoyment of Mediated Sport: (Raney, 2002, 2005; Raney & Bryant, 2002; Raney & Depalma, 2006)

55. How exciting was the play?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

56. Did you like watching the play?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

57. Was the play entertaining?

(Not at all) 1 2 3 4 5 6 7 (Extremely)

58. Was the play suspenseful?

(Not at all) 1 2 3 4 5 6 7 (Extremely)
APPENDIX B: IRB APPROVAL

December 3, 2014

Richard Rush
CCIS
Box 870323

Re: IRB#: 14-OR-414 “The Effect of Perceived Violence on Enjoyment of Mediated Sport”

Dear Mr. Rush:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on December 2, 2015. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped information sheet to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Stuart Usdan, PhD
Chair, Non-Medical Institutional Review Board
UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

Principal Investigator: Richard Rush
Second Investigator: Dr. Kim Bissell
Third Investigator:

Department: CCIS
College: Communication
University: Alabama
Address: 870323 Tuscaloosa, AL 35487

Telephone: 205-348-3692 / 205-799-2219
FAX: 205-348-4264
E-mail: rush001@crimson.ua.edu

Title of Research Project: The Effect of Perceived Violence on Enjoyment of Mediated Sport

Date Submitted: 08/14/2014
Funding Source: None

Type of Proposal: ☑ New
☐ Revision
☐ Renewal
☐ Completed
☐ Exempt

Please attach a continuing review of studies form
Please enter the original IRB # at the top of the page

UA faculty or staff member signature: ________________________________

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):

Type of Review: ☑ Full board ☐ Expedited

☐ Rejected
☐ Tabled Pending Revisions
☐ Approved Pending Revisions
☐ Approved-this proposal complies with University and federal regulations for the protection of human subjects.

Approval is effective until the following date:

Items approved: ☐ Research protocol (dated ___)
☐ Informed consent (dated ___)
☐ Recruitment materials (dated ___)
☐ Other (dated ___)

Approval signature: ________________________ Date: 12-3-14