Reversing Field: An Investigation into the Impact of *League of Denial* on Media Coverage and Attitudes about Head Injuries in the NFL

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by

David Cassilo

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Dissertation written by

David Cassilo

B.A., Villanova University, 2010

M.S., Northwestern University, 2011

Ph.D., Kent State University, 2019

Approved by

_____

Danielle Sarver Coombs, Ph.D., Chair, Doctoral Dissertation Committee

_____

Cheryl Ann Lambert, Ph.D., Member, Doctoral Dissertation Committee

_____

Tang Tang, Ph.D., Member, Doctoral Dissertation Committee

_____

Theresa Walton-Fisette, Ph.D., Member, Doctoral Dissertation Committee

Accepted by

_____

Miriam Matteson, Ph.D., Chair, Doctoral Studies Committee

_____

Amy Reynolds, Ph.D., Dean, College of Communication and Information

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Chapter 1

Introduction

After years of silence, the chatter surrounding the National Football League's concussion crisis in the last decade is louder than it has ever been. There were 281 concussions reported during the 2017 NFL season–a six-year high for the league (Jones & Reyes, 2018). Even with that high number, many believed the total could have been greater. The league came under fire for its concussion protocol that seemingly allowed several players with concussion-type symptoms to return to the field (Jones, 2017). Health and safety fears for players have been further exacerbated by medical research. A 2017 Boston University study found that of 111 brains of former NFL players, 110 tested positive for chronic traumatic encephalopathy–a progressive degenerative disease linked to memory loss, depression, suicidality, Parkinson's disease, and dementia (Mez, et al., 2017). Although notable, researchers did express caution that the sample included brains donated by family members who believed the deceased had CTE symptoms during their life. In another study released later in 2017, the first case of a living person with CTE was found in a former NFL player (Kounang, 2017). The discovery could allow doctors to identify CTE while the patient is still alive. While the NFL attempts to find ways to make its game safer, several players have walked away from the sport amidst health concerns (Cassilo & Sanderson, 2018).

This focus on safety in the NFL has clashed with the traditional values of toughness and physicality for the sport. Considered the most masculine of American sports (Butterworth, 2008), playing through pain and returning from injury has been viewed as heroic (Anderson & Kian, 2012) and such cases have been glorified by the media (Trujillo, 1991). Yet in recent years, these traditional frames of sports injury have been contested. Cassilo and Sanderson (2018) noted that

in news stories about the retirement of Chris Borland, a standout defensive rookie for the San Francisco 49ers who left pro football after one season, there existed a departure from past coverage trends, as media coverage was mostly supportive of Borland and focused on the health risks, and Sanderson et al. (2016) presented evidence that media coverage was putting the health of players first and shifting blame for injuries to organizations.

Media, though, do not just supply evidence of change–it can influence change itself. Documentaries present one example of this, as they can shape debate over social issues, construct public opinion, influence policy, and promote activism (Nisbet & Aufderheide, 2009). While media may just be looking to raise awareness on certain issues, what can result is an increase in public concern (Kellstedt, Zahran, & Velditz, 2008). In many instances, a lack of public concern is because people do not know enough about an issue. Media can supply knowledge by diffusing information about an issue to a broad audience, while in the process, reframing the issue to align with a wider set of values within the audience. This allows people to understand they may share common problems or share similar views on an issue with others (Nisbet & Aufderheide, 2009). Media, thus, provides an opportunity for concern, which can create incentive for change.

In this dissertation, I examined the connection that the 2013 documentary *League of Denial* had on media coverage frames. The documentary focused on the history of head injuries in the football and the NFL's reluctance to admit the sport's dangers. Previous research has shown how documentaries have led to attitude, behavior (Holbert, Kwak, & Shah, 2003; Beattie, Sale, & McGuire, 2011), media, and policy change (Burford & Schutten, 2017) about social issues. To do so, I used media framing theory to analyze media coverage frames about the NFL and concussions one year before, immediately before, one year after, and four years after the

release of the documentary. Additionally, I conducted qualitative interviews with journalists who covered football during that time period to understand how they contextualize any differences in coverage.

Background and Problem Statement

The documentary *League of Denial* aired on October 8, 2013, on the Public Broadcasting Service (PBS) as part of its public affairs series *Frontline*. The two-hour film was directed by award-winning journalist Michael Kirk and was based on the book of the same name written by fellow award-winning journalists Mark Fainaru-Wada and Steve Fainaru. The book was released on the same day as the airing of the documentary. ESPN had previously been involved in the project but months before its release, the network removed itself from the collaboration (Ohlheiser, 2013). In an official statement, ESPN said that it removed itself because it was not producing the documentary and did not have editorial control and that the use of ESPN marks would imply otherwise (Koblin, 2013). Speculation about the decision included the network's ties to broadcasting NFL games (Tracy, 2013). Upon its original television debut, the documentary gathered significant attention. Its initial broadcast drew 2.2 million viewers (up from the 1.5 million average for the series) and brought a record number of visitors to the Frontline website (Furness, 2016; Lipsyte, 2013).

The film begins by focusing on former NFL player Mike Webster, who is the subject of much of the documentary and the book. Webster, a former Pittsburgh Steelers offensive lineman known for his tough style of play during his 17-year career, died in 2002 at 50 years old (Litsky, 2002). In the opening scene, CTE is discovered in the deceased Webster's brain by Dr. Bennett Omalu, who is featured prominently in the documentary as a pioneer in research of NFL players' brains. Omalu is a Nigerian-American neuropathologist who worked at the Alleghany County

Coroner's Office in Pittsburgh when he made this discovery. His work with Webster's brain was the start of his emergence as one of the preeminent researchers in brain injuries and CTE among football players. One prominent portion of the documentary has Omalu recall a discussion he had with an NFL doctor, "'Bennett, do you know the implications of what you're doing?' the NFL doctor reportedly asked Dr. Omalu. 'If 10 percent of mothers in this country would begin to perceive football as a dangerous sport, that is the end of football'" (Brinson, 2013). Since, local Pop Warner leagues have experienced a decline in enrollment (Keeney, 2013).

Aside from following Webster's sharp decline from being an NFL legend to having a cognitive disability to his eventual death, the documentary also features interviews with former NFL players and their family members, medical experts, and journalists, as well as footage used by the media and NFL Films that glorified the hard-hitting nature of football. Much of the documentary puts blame on the NFL for ignoring brain injuries and their impact on former players. Criticism is given to the Mild Traumatic Brain Injury committee set up by the NFL in 1994 that produced suspect research supporting the NFL's efforts in safety and stance on brain injuries, while also discrediting medical professionals (Furness, 2016).

The documentary received significant positive feedback, including winning a Peabody Award (Taddonio, 2014). While many media critics praised the documentary, some took it even a step further, personalizing it with their own fandom and questioning how they viewed the NFL after watching. For instance, Michael Humphrey, a contributor for *Forbes* and lifelong Denver Broncos fan, wrote, "But to deny the implications of the show and not, at the very least, take that potential hypocrisy very seriously, would be delusional. If I keep watching, it is at my own ethical risk. And I honestly don't know what I'm going to do" (Humphrey, 2013). Just prior to the release of the documentary the NFL issued a statement from Jeff Miller, senior vice president of

health and safety policy, saying that the league is a "leader in addressing the issue of head injuries in a serious way" and "By any standard, the NFL has made a profound commitment to the health and safety of its players that can be seen in every aspect of the game, and the results have been both meaningful and measurable" (Mihoces, 2013).

Since the release of the film, scholarly research and media coverage have indicated that there have been substantial shifts in attitudes and media coverage about player safety in the league (Cassilo & Sanderson, 2018; Sanderson et al., 2016). In 2015, Chris Borland retired amid future health concerns after playing just a season in the NFL (Fainaru & Fainaru-Wada, 2015). In a media frame analysis of digital and print articles by Cassilo and Sanderson (2016), the coverage indicated that Borland's decision received mostly positive media attention, which was a change from prior media coverage about concussions that glorified hegemonic masculine elements of playing through injury and pain. This shift in coverage frames echoed the work of Sanderson et al. (2016), which focused on how in-game NFL player injuries were framed in the media. Additionally, Borland's retirement may have sparked a trend, as many more NFL players have retired from the game amid similar concerns (Belson, 2017). In 2018, a survey was distributed by *USA Today Sports* to 108 current NFL players about a variety of subjects related to the NFL (Bell & Brady, 2018). Within that survey, the players were asked three questions, one of which was "what is the most important issue facing the league?" Of the responses, 39% of players named health and safety as the league's most important issue–the greatest percentage of any response. As part of his survey response, NFL player Calais Campbell said, "Trying to figure out more about CTE and making sure that we try to adjust the system and the way you play, so we can protect ourselves Just get as much information as we can. They can do more to protect defensive guys, too. But the fact that they're thinking about it is a start." Another unidentified

player said, “How can the league be about player safety when they have us playing on Sunday and then (again on) Thursday Night games? … That’s not player safety.”

While such anecdotal evidence exists of a change of coverage and attitudes about player safety and head injuries in the NFL, there has yet to be any investigation considering what connection *League of Denial* may have had in this shift. Such an investigation is necessary to be able to contextualize research on this trend. Furthermore, research on documentaries and their ability to influence change is considered an underrepresented area of research, as research in mass communication has been dominated by textual analyses (Nisbet & Aufderheide, 2009). Prior documentaries including *An Inconvenient Truth (*Beattie, Sale, & McGuire, 2011), *Super Size Me* (Cottone & Byrd-Bredbenner, 2007) and *Blackfish* (Burford & Schutten, 2017) have demonstrated an ability for these films to influence attitudes, behaviors, and policy. Despite the speculated influence of *League of Denial* (French, 2015), there has yet to be any investigation into what that influence was, thus perhaps supporting the claims of Nisbet and Aufderheide (2009) that documentaries are underrepresented in research. To this point, the lone scholarly analysis of the film is limited to its content rather than its impact (Furness, 2016). That examination, which will be discussed in depth in the next chapter, explored how concussions and masculinity were reframed in the documentary.

To fill this gap in research, I have employed a two-phase research process that begins with a media frame analysis of print media articles about concussions in the NFL before and after the release of *League of* Denial. The second phase of the analysis includes conducting in-depth interviews with sports journalists who covered football during that time period. Media frame analysis has been used extensively in research of media coverage of sports to identify themes and patterns of coverage on issues such as gender (e.g. Daddario, 1994; Bernstein, 2002;

Billings & Eastman, 2002) and race (Condor & Anderson, 1984; Billings & Eatsman, 2002; Hardin et al., 2004). It also been used to study media coverage of many public health concerns (e.g. Stefanik-Sidener, 2013; Zhang, Jin, & Tang, 2015), and prior research has examined the intersection of sports and health with a specific focus on the framing of concussions and health issues in sport (e.g. Anderson & Kian, 2012; Sanderson et al., 2016; Cassilo & Sanderson, 2018). Media frames can be influenced by the values that are within society (Boykoff, 2006), as well as organizational pressures and constraints, external pressures from interest groups and policy makers, news practice routines, and the ideological or political orientation of the journalist (Tuchman, 1978). Therefore, using a media frame analysis can be an appropriate way to understand the societal views on concussions, head injuries, health issues, and sport. It is important to understand what frames are in media coverage, as frames can impact the perception of issues by an audience as well as their attitudes about the issues (Nelson & Oxley, 1999). Eventually, attitude change influenced by framing can lead to behavior change (Valentino, Beckmann, & Buhr, 2001).

Interviews with journalists can be a successful way to contextualize media coverage and understand the news production practices that contribute to story construction (Besley & McComas, 2007). Journalists will have experience in a research's focus and they exhibit all the characteristics of good informants, as outlined by Lindlof and Taylor (2002). While examples of this method are numerous, journalists have been interviewed to understand the forces that influence environmental news coverage (Yang, 2004), the factors at play in news coverage of political leaders (Besley & McComas, 2007), and media use of conflict frames (Jamieson & Entman, 2004). Research such as these studies has allowed scholars to go to a next layer beyond examining news coverage to understand the context and practices of reporting, and by using

interviews with journalists, I am able to understand how *League of Denial* informed news frames and the coverage of attitudes about concussions and injuries in football.

Significance of the Study

A significant portion of framing research focuses on what frames are (e.g. Poindexter et al., 2003; Wensing & Bruce, 2003). However, it is important to take the next step and determine why these frames exist. While recent studies have concentrated on the framing of concussions and injuries in sport (Anderson & Kian, 2012; Sanderson et al., 2016, Cassilo & Sanderson, 2018), no research has attempted to contextualize the frames in media coverage, or more specifically, why there has been a change in framing and attitudes of concussions and injuries in football from glorifying playing through pain (Trujillo, 1991) to focusing on the health risks of the sport. It is likely not be a cause-and-effect dynamic between the release of *League of Denial* and these changes, but given its subject matter and success (Taddonio, 2014), the documentary presents a worthy site of investigation for whether coverage of attitudes were different following its release.

Correspondingly, this research helps further our understanding of the influence that documentaries can have on attitudes, behavior, and policy. While research on *An Inconvenient Truth, Super Size Me,* and *Blackfish* have indicated this relationship to some extent, the study of documentaries and their influence is an underdeveloped area of research as a whole (Nisbet & Aufderheide, 2009). This research extends the work of previous analyses of documentaries into a new context–sport, health, and safety. Furthermore, it also adds an element that previous documentary research has ignored: the influence of the documentary on media coverage rather than impact on public attitudes or policy. While research has investigated attitude, behavior, and policy change, there has yet to be a study on how documentaries influence media coverage of an

issue. This is an important area of study because how reporters frame an issue can influence how the public understands it (Terkildsen & Schnell, 1997). This examination of the influence of *League of Denial* on media coverage can help provide a foundation of research, while also connecting to previous documentary studies to identify trends and patterns. I do this by highlighting the media frames that are present and examining how journalists engage with those frames. A documentary's influence is a limited area of scholarly analysis to this point. Therefore, for both media framing and the study of documentaries, this dissertation can advance the body of research by making new discoveries and connecting past research together.

In the following pages of this dissertation, I review the literature relevant to the study. I start by introducing and explaining the theory that drives this dissertation, mass media framing. Next, I continue with a background of the NFL and its history with concussions. Part of this section will concentrate on *League of Denial* and the related literature to this point. I then focus on the relationship between hegemonic masculinity and sport, with a specific focus on the NFL and the media. Finally, I conclude the literature review section by giving an overview of the role documentaries play in change, while including some prominent examples. I then will present the methods portion of the dissertation. This will begin with a theoretical bracketing section, acknowledging my own assumptions and experience, how they may impact the research, and how I am minimizing any influence they might have. I will then introduce my methods–media framing analysis and interviews, while giving an explanation as to why both are appropriate for this research, and describe my sampling procedures for both the framing analysis and interviews before concluding with a description of how I will perform data analysis. I will then outline the measures I will be taking to preserve the quality of my research, as well as the ethical considerations related to my study. Following the presentation of the methods, I include the

study's findings, which are then discussed in more detail in the next section. Finally, I discuss the limitations and implications of the research before concluding the dissertation.

Chapter 2

Review of Related Literature

Media Framing

Mass media framing is "based on the assumption that how an issue is characterized in news reports can have an influence on how it is understood by audiences" (Scheufele & Tewksbury, 2007, p. 11). Derived from sociological roots, Goffman (1974) described framing as when an individual chooses certain aspects of a situation to define it. Per Goffman (1974), an individual uses "primary frameworks" (p. 24), or interpretive schemas, to help define social situations and added that the social cues within a social situation change our definition of that social situation. Thus, those social cues and our experiences with them are what creates frames. In addition to sociology, framing also has its background in psychology. Sherif (1967) believed that all individuals develop perceptions through "frames of reference." Sherif added how we interpret and experience a situation is based on the interpretive schema born out of previous experiences.

While the concept of framing was used in communication research to analyze media, it was not until much later that Entman (1993) tried to define what is known as media framing. Entman defined framing as to "select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (p. 52). A decade later Entman (2003) added to his definition of framing by describing it as "selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution. They used words and images highly salient in the culture, which is to say noticeable, understandable, memorable, and

emotionally charged" (p. 417). Elsewhere, Tankard et al. (1991) outlined his conception of framing as a central organizing idea for news content that provides a context and indicates what the relevant issue is by undergoing a process of selection, emphasis, exclusion, and elaboration. Framing can be viewed as both a macrolevel and a microlevel construct (Scheufele, 1999). From a macro perspective, framing helps examine how journalists use information that can connect to the schemas of their audience (Shoemaker & Reese, 1996). From a micro perspective, framing research can examine how people use framed news coverage to form impressions (Scheufele & Tewksbury, 2007).

Although there have been several attempts to define media framing, what it is and its effects are still a source of debate among scholars. One side of this debate focuses on the roles political and social powers play in framing (Carragee & Roefs, 2004). Norris (1995) also suggested that frames focus on some aspects of "reality" while deflecting attention away from other aspects. Taking that a step further, Chong and Druckman (2007) proposed that the media can emphasize one aspect of a news story over another, which can therefore change the public interpretation of that story. While journalists might try to avoid this, Tuchman (1978) outlines that frames are an essential form of news making that can happen without attention. Frames can be influenced by the value system of the journalist or of society (Boykoff, 2006), as well as the propensity for journalists to select news that will include either drama or a newness effect over other types of news stories (Bourdieu, 1998). Media content is presented through frames, which arrange the presentation of opinions and facts, and those frames can either reinforce one another or compete with each other (Boykoff, 2006). Those frames operate as maps or internal story patterns that are drawn by reporters and editors for readers (Terkildsen & Schnell, 1997). These terms of news coverage are being defined without the audience being aware of the framing

process (Tankard, 2001), yet they shape the individual perspectives and dialogues within a social network (Gamson, 1992). Furthermore, actions such as selecting which quotes to use within a story give the journalist power in guiding the frame of the story (Welch, Fenwick, & Roberts, 2006). Frames are not stagnant, as they can evolve over time (Gamson, 1992), and the meaning and importance given to certain frames might fluctuate over the course of a news cycle. Their ability to influence news discourse relies on factors such as sponsor's economic and cultural resources, sponsor's knowledge of journalistic practices, and how it resonates with the broader values in American culture (Ryan et al., 2001). Framing's effects can be short-term or long-term, as the experimental model in research is usually used to examine short-term effects, which has been used in framing research (Nelson, Clawson, & Oxley, 1997). However, research by Tewksbury et al. (2000) has showed that framing effects can take place weeks after exposure, while short-term effects may disappear during the same time frame.

Areas of framing research. Framing research is applied to three main areas of mass media, and in each, that research extends across news platforms, including framing in print, broadcast, and social media. The first of these areas is the macro approach of frame building – or how frames are created. Tuchman (1978) outlined five aspects of news production that influence how journalists frame issues within stories. Those include: societal norms and values, organizational pressures and constraints, external pressures from interest groups and policy makers, news practice routines, and the ideological or political orientation of the journalist. Research has varied on the importance of these aspects. While van Dijk (1985) argued that frames were created through news practice routines of journalists, Gamson and Modigliani (1994) argued that frames were a result of the intersection between the norms and practices of journalists and the pressure of external interest groups. This type of frame building research can

also extend to external influences within the political and corporate realms, which have the ability to shape journalistic frames (Gamson & Modliglani, 1994). However, there has been mixed support for this frame-building line of research. Although Luntz (2007) supplied evidence that political campaigns are devoting resources to attempt to influence how journalists frame messages, Nisbet et al. (2003) used quantitative methods and found an important moderating variable, as that influence from the political and corporate sources is the strongest when their narratives are shared by the values of the journalists who construct the frames. One last context in which frame-building research exists is the cultural context. This occurs when a frame references something within the culture of the audience, and the audience uses this "cultural resonance" to interpret the frame (Gamson & Modigliani, 1989). These can be hard to detect because cultural frames are shared and so easily understood by both the journalist and audience, and thus the existence of these frames within news stories can go unnoticed (Van Gorp, 2006).

Conversely, much focus of framing research is the micro approach of frame setting, or the influence of framing within stories and how frames are interpreted. Frames presented within news coverage influence how a story is interpreted, particularly in news stories where the audience has very little prior knowledge (Tewksbury et al., 2000). However, for stories in which the audience has pre-existing knowledge, frames can lead the audience to develop a connection between their beliefs and values and the issues (Hurley et al., 2015). While some research provides support to the idea that pre-existing knowledge makes frames more effective (Druckman & Nelson, 2003), other research (Boyle et al., 2006) has shown that such knowledge can actually lessen the influence of framing. Research examining the influence of framing also seeks to determine types of influence, particularly for attitude formation and/or change. Frames in news coverage can influence the perception of issues by an audience and their attitudes about

the issues themselves (Nelson & Oxley, 1999). Such attitude change from media frames can also be extended into behavior change (Valentino, Beckmann, & Buhr, 2001), as well as influence on an individual's psychological processes, including how information is evaluated (Shah, Domke, & Wackman, 1996). Price and Tewksbury (1997) suggest framing is longitudinal, as there is the initial exposure to news frames and then later interpretations and perceptions are influenced by that initial exposure (Tewskbury et al., 2000).

While frame building and frame setting are important to understanding the media process, much framing research examines the types of frames, or what frames exist in news coverage. In some cases, these frames can compete with themselves in a story. For instance, there are strategy versus issue frames (Cappella & Jamieson, 1997), episodic versus thematic frames (Iyengar, 1994), and frames dealing with conflict or economic consequences (Price et al., 1997). Aside from competing frames, there are master frames, which are those frames that are common across news coverage regardless of what the content or focus of the story is (Gamson & Modligiani, 1989). However, much of framing research focuses on societal contexts and issues. Such research focuses on frames that emerge from news coverage about race (Poindexter et al., 2003), gender (Wensing & Bruce, 2003), sexuality (Ott & Aoki, 2002), and masculinity (Boni, 2002). Other research focuses on what frames exist in common forms of news stories, including political elections (Calieno & McIlwain, 2006) and crime (Waymer, 2009).

In relation to this dissertation, there have been many instances of media framing examinations that have occurred in the areas of sport and health. Some of these have included sports crisis, including Tiger Woods' marital issues (Sanderson, 2010) and crisis response in rugby leagues (Bruce & Tini, 2008). For sport as a whole, included are examinations of how wider descriptors such as gender, race, and nationality (Billings & Eastman, 2002) are framed

within media coverage of athletics. Other studies have focused more specifically on public health concerns such as diabetes (Stefanik-Sidener, 2013) and depression (Zhang, Jin, & Tang, 2015), and how the media sets the public discourse on such topics. Framing research has also taken a more specific focus that intersects both sports and health, as previous research has examined the frames present in coverage of disabled athletes (Buysse & Borcherding, 2010) as well as in digital and print media coverage of concussions in sport (Cassilo & Sanderson, 2018).

National Football League

While the sport of football has roots back to 1869, the league we now refer to as the National Football League was not formed until 1920 (NFL, n.d.). After operating as the foremost professional football league for nearly 40 years, the birth of the American Football League in 1960 gave direct competition to the NFL, eventually leading to the merger between the two leagues in 1966 and the creation of the Super Bowl – the championship game between the two leagues – starting in 1967. This merger created the version of the NFL as most know it today, yet there have been significant changes to its structure. The league pushed from a 14-game to a 16-game regular season schedule in 1978. Also, at the time of the merger there were 24 teams, but since then, the league has expanded to 32 teams, with the most recent addition coming in 2002.

Each NFL team has a private owner with the exception of the Green Bay Packers, a publically owned franchise. Working on behalf of the owners is NFL commissioner Roger Goodell (Schrotenboer, 2013). Goodell, a former intern with the NFL, eventually was appointed special assistant to the NFL commissioner Paul Tagliabue in 1991 (Schottey, 2013). After continuing to work his way up the ladder, Goodell succeeded Tagliabue as commissioner in 2006. In December 2017, Goodell agreed to a five-year extension running through 2023 that could pay him $200 million if incentives and bonuses are reached (Brinson, 2017). Under

Goodell's watch, the league has experienced significant economic prosperity. NFL total revenue topped $13 billion in 2016, a 50% increase from 2010 (Belzer, 2016). Of that revenue, $7.8 billion came from television contracts, a 10% rise from the previous season (Novy-Williams, 2017). However, the Goodell era of the NFL has also had its negatives. A "tumultuous" (Davis, 2016) 12 years in charge of the league have featured inconsistencies in player discipline for off-field behavior, including domestic violence, a lockout to begin the 2011 season, a prolonged debate over player protests headed by the kneeling of Colin Kaepernick during the national anthem, and player on-field safety issues (Davis, 2016). With Goodell's power was a concern among players, NFL Players Association Executive Director DeMaurice Smith has said that a strike or lockout in 2021 at the end of the current collective bargaining agreement between the owners and players is a "virtual certainty" (Bonesteel, 2017). While Goodell represents the owners, Smith is the head of the NFLPA, the union for NFL players that began in 1956 and represents the players in matters including wages, working conditions, and retirement during the collective bargaining process with the owners (NFLPA, n.d.).

The NFL's popularity among fans remains high. A 2014 poll found that 49% of Americans considered themselves NFL fans (Associated Press, 2014), and compared to other sports, football is still king, as a Gallup poll found that 37% of adults surveyed list American football as their favorite sport to watch–a clear first, as basketball came in second at just 11% (Norman, 2018). Football has had the top spot since 1972. In 2017, 17.2 million people attended NFL games, and the league has not had below 17 million in attendance since 2002 (Pro Football Reference, n.d.). And while the NFL saw a 9% television ratings drop from 2016 to 2017, all of network television has experienced a recent ratings decline (Pallotta, 2071), and primetime NFL broadcasts were the highest rated shows on network and cable television (Deitsch, 2018).

Speculation for causes of the drop have ranged from changes in the media landscape to social justice protests to President Donald Trump's harsh criticisms of the league (Thompson, 2017). The 2018 Super Bowl drew 103.4 million viewers, a 7% drop from the previous season, but was still ranked among the top 10 most-watched American television programs of all-time (Otterson, 2018). While fan attendance is important for the NFL, television viewership is vital because of the unique relationship sports and media hold together. Dubbed the sports-media complex (Jhally, 1984), sports and media become dependent on each other for financial success. Sports need media exposure to attract interest, and media needs sport because it provides unscripted, live content that leads to high advertising revenue. Thus, the NFL and media outlets have engaged in a symbiotic relationship to survive and prosper (McChesney, 1989).

NFL and Concussions

The Center for Disease Control and Prevention (2017) describes a concussion as a traumatic brain injury "caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth." The brain moves around in the skull, which can lead to chemical changes in the brain and the damaging of brain cells. The CDC describes concussions as "serious," and immediate symptoms can include headaches, vomiting, dizziness, and confusion, yet they remain difficult to diagnose (Daneshvar et al., 2011). Repeated brain trauma can lead to CTE, a progressive degenerative disease linked to memory loss, depression, suicidality, Parkinson's disease, and dementia (Boston University Research Center, n.d.). In 2013, there were 2.8 million TBI-related emergency departments visits, and TBI contributed to 50,000 deaths (Taylor et al., 2017).

Because of their media exposure, athletes become prominent examples of individuals who sustain concussions (Sanderson et al., 2017). Professional football players in particular deal

with a high rate of incidence, as there were 281 reported concussions in the NFL in 2017 (Jones & Reyes, 2018). The effects can be financially and physically damaging. Ramkumar and Navarro (2017) examined 5,894 NFL players from 2005-2016 and found that players who publicly reported a concussion had a shorter length of career and resulted in a salary decrease of $300,000-$1.3 million per year. As for long-term effects, a 2017 study by the Boston University Medical Center found that of 111 brains of former NFL players tested, 110 of them had CTE (Mez et al., 2017). Former players also showed higher levels of mortality, Alzheimer's disease, and myotrophic lateral sclerosis (ALS) (Lehman et al., 2012). Furthermore, there have been links between concussions and suicide among former players (Carlson, 2014). One notable suicide came in 2011 when former Chicago Bears player Dave Duerson shot himself in the chest so that his brain be used for research, according to texts sent from Duerson to his family (Foley, 2011). A year later former San Diego Chargers linebacker Junior Seau killed himself in the same manner. Posthumous testing on both players' brains founds CTE. Overall, though, the study of concussions in the NFL has been limited by a lack of data, relying on self-reports, and the bias of brains donated for autopsy (Yengo-Kahn, et al., 2016). In a study that included former NFL players from the World War II era up until the early 2000s, Kerr et al. (2017) found that slightly more than half of respondents admitted to not reporting a concussion during their playing career.

History of NFL and head injuries. The concern for football players sustaining concussions dates back to 1937, when the American Football Coaches Association declared at its annual meeting that concussed players should be removed from games and barred from future involvement in sports with physical contact (Petchesky, 2013). Scientific evidence further supported this idea 15 years later, when a study suggested that players who suffer three concussions should leave football forever (Thorndike, 1952). The NFL, which formed in 1920,

did not acknowledge the danger of concussions until 1994, when it formed the Mild Traumatic Brain Injury committee (Ezell, 2013). The head of the committee, New York Jets team doctor and rheumatologist Dr. Elliot Pellman, said that "concussions are part of the profession, an occupational risk." Later that year, NFL commissioner Paul Tagliabue dismissed the concussion problem and called it "a journalist issue." In 1995, NFL rules were updated to include not allowing a defensive player to make contact with an opposing player's head or neck area (NFL, 2013). In 1997, the American Academy of Neurology recommended removing players from games who are knocked unconscious and suggested that repeated concussions can lead to cumulative brain injury, but the NFL rejected these guidelines (McKinley Jr., 2000). Two years later, former players with cognitive decline were given $2 million in disability payments by the NFL, as these players are found to be "totally disabled," including NFL Hall of Famer Mike Webster, the main ex-player subject in *League of Denial,* who suffered from dementia (Fainaru & Fainaru-Wada, 2013). The payments were made privately, while publicly, Pellman stated that serious brain injuries are a rarity in the NFL (Ezell, 2013). A year later, The American Academy of Neurology released a study stating that 61 percent of former NFL players sustained a concussion, and the former players suffered from a handful of issues, including numbness or tingling, neck or cervical spine arthritis, memory loss, and an inability to dress or feed themselves (Petchesky, 2013).

While there have been several medical studies focusing on the dangers of football, the NFL has been slow to acknowledge these studies, and in some cases, has refuted such research with their own "junk science" (Belson, 2016). In 2002, Allegheny County medical examiner Dr. Bennet Omalu examined the now-deceased Webster's brain and discovered CTE, which had previously never been linked to NFL players (Ezell, 2013). It would take until 2016 for the NFL

to acknowledge the link (Martin, 2016), and in 2017, the first case of a living person with CTE was found in a former NFL player (Kougnang, 2017). The link between concussions and long-term problems for NFL players does not end with CTE. In 2003, studies found that players with concussions have issues with depression (Petchesky, 2013) and slower recovery of neurological functioning (Ezell, 2013), while the MTBI committee published a study saying concussions have no long-term effects (Petchesky, 2013). Over the next two years, the MTBI committee said that concussed players recover quickly, return to play doesn't increase injury risk, NFL players are less susceptible to brain injuries, and disputed research on effects of multiple concussions (Ezell, 2013). Meanwhile, a link is established between concussions and dementia in a 2005 study. Two years later, the NFL hosted a Concussion Summit disputing much scientific research, while also issuing a pamphlet saying that research on the long-term impact of concussions is inconclusive.

In 2009, the NFL for the first time publicly acknowledged the long-term effects of concussions, as NFL spokesman Greg Aiello says, "It's quite obvious from the medical research that's been done that concussions can lead to long-term problems" (Schwarz, 2009). Later that year, the NFL adjusted its safety measures by updating its return-to-play guidelines, saying that any player who has concussion symptoms should not return to play that day (Associated Press, 2009), and banning certain formations in kickoff returns (NFL, 2013). In 2010, the NFL disbanded its MTBI committee (Petchesky, 2013) and donated $30 million to concussion research, while also banning hits to the head or neck area on defenseless players (NFL, 2013). A year later, the NFL further adjusted kickoffs, including moving them up five yards in an effort to decrease contact by increasing non-returned kicks, while introducing a new protocol for dealing with concussed players. Under this protocol, which is reviewed by the league every year, four independent medical professionals are on the sidelines to spot players who are believed to have

sustained concussions and evaluate them for re-entry (Seifert, 2017). The team doctor has final say over the decision, following testing given to the player who is suspected to have a concussion. In 2013, the league committed $100 million to a Harvard study about brain injuries (Ezell, 2013). Later that year, the NFL agreed to a $765 million settlement with more than 4,500 retired players who accused the league of hiding the link between traumatic brain injury and playing in the NFL (Breslow, 2013). As part of the settlement, the NFL admitted no wrongdoing. However, in 2014, a federal judge ruled that the settlement was not enough money, and the NFL was asked to increase the amount (CNN Library, 2017).

"League of Denial" debuts. Much of the NFL's history with concussions was closely examined in *League of Denial,* a 2013 book and PBS *Frontline* documentary, chronicling traumatic brain injuries, concussions and CTE in the NFL. The work focused on former NFL player Mike Webster's brain injuries and the work Dr. Bennett Omalu, a pathologist who examined Webster's brain. Many aspects of the book and documentary were later included in the movie entitled *Concussion*, which starred Will Smith. The original work details a timeline of advancements in NFL concussion knowledge and the refutation of those advancements by the NFL (Fainaru & Fainaru-Wada, 2013).

The documentary reframes the "concussion crisis" in the NFL in three key ways (Furness, 2016). First, it problematizes the idea that head injuries are just "part of the game" and a risk in the NFL. Part of this is the hegemonic masculinity evident in football and the media coverage (Anderson & Kian, 2012; Oates, 2007; Oates, 2009) that highlights this "warrior narrative" (Jansen & Sabo, 1994). When this notion is presented in the public discourse, it can become problematic as it can normalize pain and injuries in football to a wider audience (Furness, 2016). *League of Denial* combats this notion by having former players and their family

members discuss the inability to accurately measure the amount of risk inherent in football and the inability to detect concussions. Second, its depiction of Webster shows the effect of concussions and contests traditional beliefs about masculinity in football. As a player, Webster was known for his toughness. Part of his *New York Times* obituary reads, "He transformed himself into a 260-pound tough-minded professional, a man known as Iron Mike who played bare-armed in freezing weather" (Litsky, 2002). In the documentary, he is shown in his post-playing career as a man severely struggling with his physical and mental condition. Thus by using Webster as the symbol of the documentary's message, Furness says that it is portraying pro football as "brutal and deadly." Finally, the film critiques sports media's role in creating the spectacle of pro football thus enabling a cultural context that allowed the "concussion crisis" in football to reach this point. This can be attributed to several factors, including the sports media complex, which suggests that the media have little incentive to criticize the sport they are covering because of the financial gains that sport brings to the media source (Jhally, 1984), as well as the insulated NFL atmosphere due to the presence of several former players within NFL broadcasts (Levy, 2012). Furness recalls several NFL Films' productions that glorified violence, including *Big Blocks* and *King Size Hits*, which helped normalize violence in the NFL, as *League of Denial* suggests. While there has yet to be an analysis in shifts in media coverage following *League of Denial*, Wilbur & Myers (2016) examined attitudes on Twitter about concussions before and after the release of *Concussion* by using a quantitative content analysis of 1,035 tweets. They found that, in general, the public shifted towards a hostile attitude towards the NFL immediately after the release of the film.

Changes in NFL attitudes? The NFL has changed how it has dealt with concussions over time. Still, an analysis of news articles and archival documents from 1991-2015 in addition

to interviews conducted by Heinze & Lu (2017), indicated that the NFL has shifted from a reactive to a proactive strategy to dealing with concussions. Fortunato (2015) outlines that response in three stages: 1) making the current NFL safer; 2) investing in research focusing on concussions and brain science; and 3) developing youth football education and training programs that are aimed to promote a safer way to play football. The NFL has done the latter by financially backing the Heads Up Football program, which uses in-person and online courses to teach better safety procedures and tackling drills in youth football (Schwarz, 2016). Despite these changes in the NFL mindset, there is evidence to suggest not much has changed. The concussion settlement, which is now estimated to reach potentially $1 billion, has had a delay in payments, as the NFL has argued fraudulent claims by former players (Belson, 2018). Meanwhile, the 281 reported concussions in the NFL in 2017 were a six-year high for the league (Jones & Reyes, 2018), while the league's concussion protocol came under criticism in 2017 after several instances of players who appeared to be concussed staying in the game, leading to New York Giants owner John Mara saying, "There were some mistakes made" (Jones, 2018). Also, a congressional study found that the NFL has tried to influence the research it is funding (Branch, 2016). Shifts in the NFL position aren't the only change. Player mindset has changed too. In 2015, Chris Borland, a standout defensive rookie on the San Francisco 49ers, retired after just one season over future health concerns (Fainaru & Fainaru-Wada, 2015). His retirement was met with largely positive media attention – a change from prior media coverage about concussions (Cassilo & Sanderson, 2016). Since Borland's retirement, several other NFL players have walked away from the game amid similar concerns, including Baltimore Ravens lineman John Urschel (Belson, 2017), who stated his retirement was related to the Mez et al. (2017) study that found CTE in the brains of 110 of 111 former NFL players.

Football and Hegemonic Masculinity

Within society, multiple forms of masculinity exist (Connell, 2005). Hegemonic masculinity is a social process during which one form of masculinity is prioritized over all others due to an alignment between the cultural ideal and institutional power. This hegemonic masculinity emphasizes the association of masculinity to toughness and competitiveness, while also marginalizing women and gay men (Connell, 1990). Prior research has assembled five features of hegemonic masculinity: physical force and control, occupational achievement, familial patriarchy, frontiersmanship, and heterosexuality (Brod, 1987; Connell, 1990; Jeffords, 1989; Kimmel, 1987). By adopting an idealized form of masculinity, society dictates "what it means to be a man" (Hanke, 1990). While not all men display this hegemonic masculinity, many of them wish to display at least partially this perspective of being a man (Anderson & Kian, 2012).

Sports have shaped the idea of what we view as masculinity (Messner, 1992) as the athlete is the foremost representation of masculinity, particularly in the United States (Anderson & Kian, 2012). Sport has been described as helping build manly character, develop physical fitness, establish order, and prepare young men for war (Dubbert, 1979). Sport also provides more opportunities for men than women, and relegates women to roles such as cheerleaders, spectators, and images in advertising (Trujillo, 1991). American masculinity has been constructed most notably with the aid of football (Anderson & Kian, 2012). Football is considered the most masculine of American sports, as it promotes masculinity by homosocial bonding and controlled violence (Butterworth, 2008). While controlled, that violence is also sanctioned as part of the game (Curry, 1998). That violence has only grown as advancements in training techniques have led to bigger, faster, and stronger athletes (Sanderson, 2002). Football

teaches young men qualities that include competitiveness, aggression, violence, superiority to women, and compliance to male authority (Sabo & Panepinto, 1990).

Men in sports give considerable effort to align themselves with the hegemonic view of masculinity (Anderson & Kian, 2012). As part of this display of masculinity, men are encouraged to be "physically aggressive and emotionally restrained", thus constructing the "rigid boundaries of manhood" (Butterworth, 2008). Football has also served as a space to normalize the masculine notion of war, whether it's the Pro Football Hall of Fame exhibit "Pro Football and the American Spirit" (Butterworth, 2012) or the American Helicopter Armed Forces Bowl, a college football bowl game sponsored by a military manufacturer (Butterworth & Moskal, 2009). And while masculinity exists on the field, it also exists off the field as part of football ritual in tailgating (Veri & Liberti, 2013) and sports talk radio (Nylund, 2004), as well as online fan banter and video games (Oates, 2009).

Pain is viewed as a part of sport, particularly in football, where sacrificing one's body is a display of masculinity (Anderson & Kian, 2012). In sport, playing through pain and suppressing injuries is normalized and viewed as toughness (Messner, 1992). Bodies become weapons (Messner, 1990), which are sacrificed for the sake of glory (Anderson & Kian, 2012). Sabo (2004) introduced the "Pain Principle," suggesting that pain is inevitable in sport and that enduring that pain is a part of developing character. Embracing pain and denying weakness is part of the masculinity-establishing discourse (Adams, Anderson, & McCormack, 2010) that helps define hegemonic masculinity. Phrases like "man up" and "no pain, no gain" portray the body as an expendable weapon in athletes (Anderson & Kian, 2012). Those players who did sit because of injury can be seen as weak, while those who play have a warrior mentality

(Sanderson et al., 2016). This mindset can start at the professional level and work its way down to the youth levels, as many children view athletes as role models (Messner, 1992).

Masculinity and the media. Some of the most iconic football images are portrayals of players playing through injury (McDonough et al., 1999). Returning from injury is viewed as a form of heroism (Anderson & Kian, 2012), and these instances are often praised and glorified in sports media (Trujillo, 1991; Sabo & Jansen, 1998). The football player is often portrayed as both physically and emotionally tough (Nylund, 2004). Considering the sports media complex, it can be in the media's best financial interests to glamorize playing through pain rather than focus on the injury risk of the sport and thus jeopardizing alienating viewers and risking profits (Sabo, 2004; Sabo & Jansen, 1998). Media tends to not challenge dominant views and structures (Duncan, 2006), and presents the concepts of hegemonic masculinity and heterosexuality as natural rather than socially constructed (Jhally, 1989). Also, as most sports media members are men, many of them former athletes (Anderson, 2009), their views on masculinity can enter their coverage (Hardin, 2005). Because of their views, their analysis and coverage is unlikely to challenge typical forms of masculinity (Hardin & Shain, 2006). Hegemonic masculinity is not only promoted by how the media covers sports but also by covering mostly male sports and negatively portraying female athletes (Duncan, 2006), as well as less often covering male athletes in sports that are not traditionally masculine (Vincent et al., 2002). These journalistic tendencies to promote hegemonic masculinity can influence how youths view masculinity (Kian, Vincent, and Mondello, 2008).

However, there is evidence of a societal shift in what forms of masculinity are valued both with the athletes who compete and the media who cover them, as seen in the research by Anderson and Kian (2012), who performed a media analysis of print articles about the injury

coverage of NFL quarterback Aaron Rodgers. That shift has shown an increasing awareness to the effects of head injuries and a softening of masculine values, which lessens the self-sacrifice aspect of sport. Additionally, Sanderson et al. (2016) used a media frame analysis of print media coverage about two NFL quarterbacks—Jay Cutler and Robert Griffin III—and found that media coverage frames supported the injuries athletes. As hegemonic masculine views diminish, other forms of masculinity can grow in popularity (McCormack, 2011). One new form of masculinity–inclusive masculinity–does not promote sacrificing one's body for sport (Anderson & McGuire, 2010). Anderson and McGuire constructed this concept by engaging in a yearlong ethnographic study of a rugby team at a university in England that included participant observation and interviews with team members. To further explore inclusive masculinity, within his book on the topic Anderson (2010) chronicled four trends among heterosexual college athletes: 1) increased physical tactility among same-sex peers; (2) increased emotional bonding between same-sex peers; (3) less peer-aggression; and (4) the adoption of feminized clothing styles and body posture. Anderson also noted a decrease in attitudes of homophobia, lending to this shift in masculinity. Anderson and Kian (2012) further suggest that the idea of sacrificing one's body for the team is also experiencing a change because of the rise in awareness of the effects of injuries, a growing acceptance in culture of the emotional intimacy of men, and the fear sports leagues possess for being held accountable for health and injury risks. Anderson and Kian add that these may change how masculinity is viewed in the NFL, as there appears to be contestation between hegemonic and inclusive masculinity.

Still, there is also resistance to changes in how masculinity is viewed in football. Those within the sport have shown resistance in making the game safer. Former NFL quarterback Roger Staubach said that NFL rule changes were turning the sport into "a kind of wussy game"

(Florio, 2010). Social media research has also supplied evidence that football fans still support traditional views of masculinity. A study of reaction to NFL player Adrian Peterson's child abuse allegations found Twitter users defending the norms of hegemonic masculinity (Foote, Butterworth, & Sanderson, 2017). Similar sentiments were found in an examination of Facebook comments about Pop Warner's decision to ban kickoffs at its three youngest age divisions, as the decision was equated to the decline of American society and the American male (Sanderson & Cassilo, 2018).

Media and Documentaries Affecting Change

Documentaries have a split audience. A 2014 market research study found that 43% of documentary viewers were considered young, tech-savvy consumers viewing because of platform familiarity, while another 43% were classified as discerning documentary lovers more interested in the style of the film (De Rosa & Burgess, 2014). The data also listed viewers as being 67% female and 41% between the ages of 31-54. While many forms of media are for entertainment purposes, some, like documentaries, can shape debate over social issues, construct public opinion, influence policy, and promote activism (Nisbet & Aufderheide, 2009). The initial intention of these media can be to raise awareness on certain issues, which will subsequently raise public concern (Kellstedt, Zahran, & Velditz, 2008). A lack of public concern about an issue may be a case of the public not knowing enough rather than not caring enough, and media can provide that knowledge by dispersing the issue to a wider range of people and reframing the issue to align with a wider set of values, thus allowing people to understand they may share common problems or share similar views on an issue (Nisbet & Aufderheide, 2009).

However, the effect of these films can be greater than simply a knowledge intention. There is a significant body of research, mostly using quantitative methods, outlining how

documentaries can affect attitude and behavior change. Holbert, Kwak, and Shah (2003) found that nature documentaries focusing on pro-environmental issues lead to a great desire to engage in pro-environmental behavior, while Barbas, Paraskevopoulos, and Stamou (2009) found that students' exposure to a nature documentary about insects led to higher environmental sensitivity towards those insects. Behavior change is the next step, and it is a process that can be started when media appeal to emotions and cognitions (Beattie, Sale, & McGuire, 2011). An individual stores that information and uses it to rationalize behavior. Arendt and Matthes (2016) indicated actual behavior change for viewers of nature documentaries, as their experiment showed that exposure led to an increase in donations to animal and protection organizations. Also, documentaries can mobilize viewers to become involved in social movements by their ability to be circulated to a wide audience (Pezzullo, 2009). Pezzullo adds that documentaries allow us to witness events, saying, "Rather than maintaining a distance gaze through which we ignore atrocities, witnessing suggests the need to explore 'what we are trained to overlook.' In this act of seeing, the witness risks identification with the fate of other people, places, and events" (p. 147). Witnessing can lead to ruptures, which are new understandings based on viewing, and these ruptures transition the viewer from complicity to implication (Milstein and Kroløkke, 2012). This gives the viewer the tools needed to take action if they desire (Nisbet & Aufderheide, 2009).

Yet, not everyone may believe these films have an effect on them. Davison (1983) introduced the third-person effect hypothesis, stating that people tend to believe the media has a greater impact on others than themselves. This third-person effect may diminish if the message of the film aligns with a person's prior beliefs (Gunther & Mundy, 1993). Furthermore, research on defense attributions has indicated that it's possible that the more a person knows about an

issue, the less they feel personally responsible for it, and instead, they shift blame and responsibility somewhere else (Ross, 1977). A study on attitudes towards global warming supported this notion, as participants with more knowledge felt less ability to cause change (Kellstedt, Zahran, & Velditz, 2008), which would seem to have the opposite effect of what some documentaries intend.

Examples of media and documentaries affecting change. Although several forms of media can lead to knowledge gain, attitude change, and behavior change, documentaries have shown a difference in their ability compared to other media. LaMarre and Landreville (2009) compared viewers of two films about Rwanda's genocide, the motion picture *Hotel Rwanda* and the PBS documentary *Triumph of Evil*. Results indicated that those who watched the documentary had a higher knowledge gain and documentaries have a stronger potential to influence public opinion. Leiserowitz (2004) noted that because of the creative and fictional aspects to motion pictures, they can be viewed as fantasy. In another study, Whiteman (2009) investigated the influence *Yes, In My Backyard*–a documentary detailing how rural communities use prisons to aid in economic development. Whiteman detailed that the film strengthened activist efforts against the practice and helped raise the profile of the activist movement in news media and with policymakers. Despite this ability of documentaries, Nisbet and Aufderheide (2009) state that they are an overlooked area of research.

One such instance of a documentary leading to attitude change is the 2006 film *An Inconvenient Truth*, which focused on the efforts of former United States vice president Al Gore in raising awareness for worldwide climate change, dispelling myths about the environment, and calling for worldwide action. The film attempts to manipulate the viewers' emotions and cognitions related to climate change (Beattie, Sale, & McGuire, 2011). Its impact motivated both

politicians and the public to address climate change issue (Lin, 2013). Beattie, Sale, and McGuire (2011) found that after viewing clips from *An Inconvenient Truth,* individuals were more motivated to reduce climate change and felt more empowered to do so. Nolan (2010) found the documentary increased knowledge about climate change and ignited behaviors to combat it, but the participant's willingness to take action dissolved a month after the film.

Other films have had an impact beyond just attitudes and behavior and have led to policy change. The 2013 documentary *Blackfish* was an instance in which a film caused near-immediate and lasting change. The film follows, Tilkikum, a bull orca that has been held captive for 29 years at SeaWorld and is responsible for the deaths of three people, including trainer Dawn Brancheau (Burford & Schutten, 2017). While SeaWorld had publically blamed Brancheau for making mistakes that led to her death, the filmmakers present the death of Dawn Brancheau as the result of animal cruelty by confining the whales. The film received significant attention and was later released on CNN. Six months after its debut in theaters, it had amassed roughly 25 million viewers in theaters and through CNN (Kaufman, 2014). The release of the film created an environmental justice movement on social media referred to as the "Blackfish Effect" that led to boycotts of the parks (Burford & Schutten, 2017). Park visitation dropped by one million from 2013 to 2014, and SeaWorld dipped in revenue by $80 million during that timeframe (SeaWorld Entertainment, Inc., 2015). There were also legal ramifications as the San Diego, California, made it illegal to keep orcas in captivity (Kirby, 2014), and in an eventual response to the documentary, SeaWorld agreed to end its breeding program and phase out all orca performances by 2019 (Burford & Schutten, 2017).

Health documentaries in particular can have a significant impact as they may assign culpability (Bloomfield & Sanagalang, 2014). The 2004 film *Super Size Me* follows filmmaker

Morgan Spurlock, who ate only McDonald's food over a 30-day period, while also investigating the fast food industry and its effect on nutrition in his film (Singer, 2011). The diet had a significant effect on Spurlock's physical and mental health, including weight gain, increased cholesterol, and mood swings. Six weeks after the release of the film, McDonald's phased out its supersize menu and added healthier options, although the restaurant said the decisions had nothing to do with the film (Holguin, 2004). Furthermore, the film has proven to be a significant health educational tool. Cottone and Byrd-Bredbenner (2007) performed a pretest-post control group experiment where the experimental group watched *Super Size Me* and found that participants in the experimental group had a high consciousness of proper nutrition practices.

While documentaries may have aspects that appeal more to attitude and behavior change than other forms of media, there are several examples of other forms of entertainment media that have also led to change. One of the most notable examples is *The Day After Tomorrow*, a 2004 motion picture focusing on the effects of climate change. Leiserowitz (2004) conducted a national survey about the movie, which grossed half a billion dollars worldwide in less than a month. Among the survey's findings was that moviegoers, compared to non-moviegoers, had a higher risk perception of climate change, viewed it as a higher priority, and were more likely to engage in individual action to help address global warming. Other media have had a similar form of impact, including *Philadelphia*, the 1993 film which has been credited with changing attitudes on HIV-AIDS (Gordon, 2013), and *The Jungle*, the 1906 novel by Upton Sinclair that led to widespread reform in the meat-packing industry (Duvall, 2002).

With these areas of research in mind, the next section will include the study's research questions. These questions were informed by previous research in the literature review section and aim to fill gaps of research as established by each section. Following, the research questions,

a detailed overview of the methods of this research will be provided and how those methods will answer the research questions.

Research Questions

The purpose of this study is to determine if there were any changes in attitudes and media coverage frames about concussions and head injuries in football before, during, and after the release of *League of Denial* and what role, if any, the film may have played in any difference. The research questions guiding this study are:

PHASE 1 – Media Frame Analysis

RQ1: What are the media coverage frames of concussions and head injuries in the NFL:

a) before the release of *League of Denial* (Sept. 5, 2012-Oct. 5, 2012, and Sept. 3, 2013-Oct. 3, 2013)?

b) after the release of *League of Denial* (Sept. 4, 2014-Oct. 4, 2014, and Sept. 7, 2017-Oct. 7, 2017)?

c) And how do those frames compare with each other?

RQ2: What types of different experts are being cited in media articles about concussions and head injuries in the NFL before and after the release of *League of Denial*?

RQ3: What differences exist within the quotes chosen in media coverage in how NFL players and coaches talk about concussions before and after the release of *League of Denial*?

PHASE 2 – Interviews

RQ4: To what do journalists attribute any changes in media coverage regarding concussions and head injuries in the NFL?

RQ5: What do journalists attribute any changes to in player, coach, and organization attitude regarding concussions and head injuries in the NFL?

RQ6: How, if at all, do the journalists believe that their reporting of concussions and head injuries in the NFL was influenced by *League of Denial*?

Chapter 3

Methodology

Within this chapter, I will go into greater explanation of these methods, why they were chosen, and how they were executed. I will also explain my theoretical bracketing strategies, sampling practices, data collection and analysis, as well as my considerations for ethics within the research. The goal of this study is to investigate the connection that the 2013 documentary *League of Denial* may have had on media coverage, journalists and organizational attitudes. *League of Denial* was chosen over the scripted film *Concussion* because research has shown that documentaries have a stronger potential to influence public opinion (LaMarre & Landreville, 2009). To examine, I utilize a two-phase research design that begins with a media frame analysis of media coverage related to concussions before and after the release of *League of Denial*. Media frame analysis has been used broadly in research of media coverage of sports to identify themes in coverage on issues such as gender, race, and health (e.g. Daddario, 1994; Condor & Anderson, 1984; Anderson & Kian, 2012), and the goal for this phase of the research is to understand the themes and patterns in media coverage about concussions in football and how those themes may have differed among a selection after the release of *League of Denial*. The second phase of the analysis involves conducting qualitative interviews with sports journalists who covered football during that timeframe. Interviews with journalists can contextualize media coverage and give insight to the news production practices that contribute to story construction (Besley & McComas, 2007), and this phase focuses on giving context to the findings of the first phase.

Theoretical Bracketing and Research Quality

For this research, I am solely in charge of data collection procedures. A researcher in this role must be well-trained and experienced because of the interaction between the theoretical

issues being studied and the data collection processes (Yin, 2014). My training is led by my experiences within the College of Communication and Information doctoral program at Kent State University, which have prepared me for this dissertation. Two doctoral courses in particular, Qualitative Research Design (EVAL 85516) and Ethnography and Case Study (EVAL 88795), have given me the opportunity to learn and practice research skills such as asking good questions, being a good listener, and staying adaptive. Still, I am a relative novice in most of these areas and rely heavily on the works of experts to make sure I am fully prepared to conduct research. Furthermore, my expertise on this topic is seen in my two published works (Cassilo & Sanderson, 2018; Sanderson & Cassilo, 2018), which have focused on the print, digital, and social media conversation about concussions in football. Having a grasp of the issues is enhanced by my previous professional experience as a high school football reporter. However, while being an "insider" to the site can be a benefit, it can also be a reason to overlook things (Emerson et al., 2011).

This connects to one of the most important aspects of a researcher–diminishing one's own bias. Creswell and Miller (2000) state that researchers must prioritize acknowledging their beliefs and biases early in the research process so that readers can understand their position. They add that researchers should "reflect on the social, cultural, and historical forces that shape their interpretation" (p. 127). One way to perform this is by bracketing. As defined by Tufford and Newman (2010), bracketing is "a method used by some researchers to mitigate the potential deleterious effects of unacknowledged preconceptions related to the research and thereby to increase the rigor of the project" (p. 2). Drew (2004) further explains bracketing as "the task of sorting out the qualities that belong to the researcher's experience of the phenomenon" (p. 215). Tufford and Newman (2010) add that this process should strengthen the overall quality of the

research. One method for bracketing is to take part in an interview with an outside source to bring understanding to researchers' own biases and preconceptions (Rolls & Relf, 2006). This process can uncover any issues the researcher may have in conducting the data collection and analysis without bias, which both enhances the researcher's ability to understand the phenomenon being studied as well as increase the quality of the study. To engage in bracketing for this research, I was interviewed prior to data collection. This is particularly important for this research topic because while I have no experience playing football, I have reported on high school, college, and professional football. Engaging in such a bracketing interview helps alleviate any sort of bias that might arise from my previous professional experience, while also exploring other social, cultural, and historical forces that may influence my work as a researcher. By doing this, bias should be hopefully reduced in my study, thus increasing the quality.

There are some additional ways to increase the quality of a study that go beyond diminishing personal bias and engaging in theoretical bracketing. One such way is to use multiple methods for data collection (Krefting, 1991), which include with both a media frame analysis as well as interviews. Findings will carry more weight and increase internal validity if the interviews contextualize the frames. Another way I increase the quality of this study is through thick description. My goal while presenting my findings is to have enough description to support the claims of the researcher. Finally, I add to the quality of my research by documenting as much as I can. By creating an audit trail, it allows for replication of the study, thus increasing the reliability of the study. Aside from replicability, documenting everything is important because it provides evidence and a paper trail for each part of my study. If anyone questions the rigor, quality, and credibility of the study, I have the documentation to support it.

Phase 1 – Textual Analysis

Media Frame Analysis

Framing analysis is to "view news texts as a system of organized signifying elements that both indicate the advocacy of certain ideas and provide devices to encourage certain kinds of audience processing of the texts" (Pan & Kosicki, 1993, p. 55). According to Pan & Kosicki, there are four key features of framing analysis that differentiate it from similar methods, such as textual analysis. First, framing analysis views news texts as containing of organized symbolic devices that interact with individual agents' memory to construct meaning. Second, it accepts the assumption of the rule-governed nature of text formation (van Dijk, 1988), as well as the multidimensional conception of news texts that allow for cognitive shortcuts in news production and consumption. Third, it uses the systematic procedures of gathering data within news texts to distinguish the signifying elements that can be used by the audience. Fourth, it does not assume there are frames in news texts independent of readers of the texts.

Many previous investigations have been performed using an analysis of media frames to identify themes and patterns that exist in sports media coverage of several topics, such as gender (e.g. Bernstein, 2002; Billings & Eastman, 2002; Daddario, 1994) and race (Billings & Eatsman, 2002; Condor & Anderson, 1984; Hardin et al., 2004). This method has also been used to study the media coverage of public health concerns (e.g. Stefanik-Sidener, 2013; Zhang, Jin, & Tang, 2015), as well as the media coverage of sports and health, including instances that focus on the framing of concussions and health issues in sport (e.g. Anderson & Kian, 2012; Sanderson et al., 2016; Cassilo & Sanderson, 2018). This connection to previous research using this method suggests that a framing analysis is an appropriate technique to use given the aims of this study.

Sample and Data Collection

To explore how concussions in the NFL are framed in the media, I examine news articles focusing on the NFL and concussions during four one-month periods (Table 1). Prior media framing investigations into injuries and concussions during the NFL season have ranged from approximately one week (Anderson & Kian, 2012) to one month (Sanderson et al., 2016). However, these investigations looked at just a few specific cases. Therefore, to increase the number of cases while still leaving a manageable sample, I use the one-month timeframe. Furthermore, a 2012 independent analysis of data provided by the NFL Players Association found that players missed an average of 16 days after sustaining a concussion after previously missing just 6.4 days in 2009 and 4 days in 2005 (Jones, 2013). This trend suggests that a month is a more appropriate timeframe than a week to consider the full life cycle of a concussion in media coverage.

Table 1

Data collection time periods for media framing analysis

Time period	Start Date	End Date
One year before release	Sept. 5, 2012	Oct. 5, 2012
Immediately before release	Sept. 3, 2013	Oct. 3, 2013
One year after release	Sept. 4, 2014	Oct. 4, 2014
Four years after release	Sept. 7, 2017	Oct. 7, 2017

As such, the first of those one-month periods span from Sept. 5, 2012-Oct. 5, 2012, which was the first full month of the 2012 NFL season. This timeframe was selected as it was one season prior to the release of *League of Denial*, which allows for an analysis of what

coverage was like about concussions before the release of the documentary. It is also far enough in advance that speculation about the documentary should not influence the coverage. The second of those one-month periods span from Sept. 3, 2013-Oct. 3, 2013, which was the first full month of the 2013 NFL season. This should also provide an understanding of what coverage was immediately before the documentary, as the film was released on Oct. 8, 2013. The third of those one-month periods span from Sept. 4, 2014-Oct. 4, 2014, which was the first full month of the 2014 NFL season. This was chosen because it was the beginning of the first NFL season after the release of the documentary. The final one-month period span from Sept. 7, 2017-Oct. 7, 2017, which was the first full month of the 2017 NFL season. This was selected as an opportunity to see what differences may exist following the documentary, as the 2017 season is the most recent season prior to this dissertation's investigation.

Print news articles were chosen for this study over digital news articles for several reasons. First, print stories were chosen over broadcast news because one of the purposes of this study is to better understand a shifting in media frames about concussions, and those prior studies in which the shift was established used print news. Additionally, online news databases lack the search capabilities to perform such a study given the desired time range. For instance, ESPN.com, which had the most unique visitors of all sports websites in May 2018 (Fisher, 2018), does not have a search feature that allows the user to sort by date. The second and third sites on that list, NBCSports.com and CBSSports.com, respectively, do not have search features on their websites. Therefore, I use the LexisNexis search database to compile archive articles of print news sources. LexisNexis has been described as the most widely used news archive in the social sciences (Deacon, 2007). It contains nearly all big-market newspapers (Weaver & Bimber, 2008) and over 15,000 news, business and legal sources, some of which date back to 1789

(LexisNexis, n.d.). Furthermore, it continues to be used as a source of news articles for recent scholarly analysis (e.g. Tamul & Martinez-Carrillo, 2018; Abraham et al., 2018) and has been used extensively in analysis of sports media coverage (e.g. Cassilo & Sanderson, 2018; Lee et al., 2016).

Within the data provided through the LexisNexis search, I use five sources. First is *USA Today*, which was chosen because it had the largest circulation of any national newspaper during the year of *League of Denial's* release (Gold, 2013). Second is *McClatchy Tribune* – a publishing company that operates 31 daily newspapers in 14 states, thus increasing the diversity of the sample by supplying media coverage from many different areas of the country. These daily newspapers include *The Beaufort Gazette, Belleville News-Democrat, The Bellingham Herald, The Bradenton Herald, Centre Daily Times, The Charlotte Observer, Ledger-Enquirer, The Fresno Bee, The Herald, The Herald-Sun, The Idaho Statesman, The Island Packet, The Kansas City Star, Lexington Herald-Leader, Merced Sun-Star, The Miami Herald, El Nuevo Herald, The Modesto Bee, The News & Observer, The Olathe News, The Olympian, The Sacramento Bee, Fort Worth Star-Telegram, The State, Sun Herald, Sun News, The News Tribune, The Telegraph, The San Luis Obispo Tribune, Tri-City Herald,* and *Wichita Eagle*. I also include three news sources with specific local coverage areas so that they include the day-to-day reporting of an NFL team. To narrow down which newspapers, I used a study by StatNews that looked at the number of concussions reported by each NFL team from 2013-15 (Tedeschi, 2015). I then selected the three local newspapers within the LexisNexis database that covered the teams with the most reported concussions, which resulted in the inclusion of the *New York Daily News* (New York Giants and New York Jets), *The San Jose Mercury News* (Oakland Raiders and San Francisco 49ers), and *The Denver Post* (Denver Broncos).

To compile the data, I searched the keywords "concussion," "head injury," and "traumatic brain injury" within LexisNexis for each timeframe. These are three terms commonly used in research and popular press to refer to the result of a blow to the head (e.g. Newman et al., 2005; Pellman et al., 2006; Mitsis et al., 2014). An initial exploration of articles using those search terms within the media sources of interest was performed in LexisNexis for six time frames. They were three years before *League of Denial* (n=422), one year before *League of Denial* (n=475), one month before *League of Denial* (n=475), one month after *League of Denial* (n=206), one year after *League of Denial* (n=234), and four years after *League of Denial* (n=133). For the final sample, I used a procedure demonstrated by Billings et al. (2015), as articles were removed from the sample if they were: (a) a duplicate article; (b) a letter to the editor from a citizen; or (c) are shorter than 75 words. Articles were removed based on relevance, as only articles focused on concussions, head injuries, or traumatic brain injuries in the NFL were included given the aim of the research questions. For each time period that left a final breakdown sample (Table 2) as follows: Sept. 5, 2012-Oct. 5, 2012 (n=124); Sept. 3, 2012-Oct. 3, 2013 (n=147); Sept. 4, 2014-Oct. 4, 2014 (n=41); and Sept. 7, 2017-Oct. 4, 2017 (n=23).

Table 2

Sample counts for media framing analysis time periods

Time period	Start Date	End Date	n
One year before release	Sept. 5, 2012	Oct. 5, 2012	124
Immediately before release	Sept. 3, 2013	Oct. 3, 2013	147
One year after release	Sept. 4, 2014	Oct. 4, 2014	41
Four years after release	Sept. 7, 2017	Oct. 7, 2017	23

Within each time period, the distribution of articles varied. For the sample taken from one year before the release of the film (n=124), the distribution of articles among the five data sources were: (a) *New York Daily News* (n=45); (b) *San Jose Mercury News* (n=31); (c) *Denver Post* (n=25); (d) *McClatchy Tribune* (n=12); (e) *USA Today* (n=11). For the sample taken from immediately before the release of the film (n=147), the distribution of articles among the five data sources were: (a) *San Jose Mercury News* (n=51); (b) *McClatchy Tribune* (n=39); (c) *New York Daily News* (n=24); (d) *Denver Post* (n=17); (e) *USA Today* (n=16). For the sample taken from one year after the release of the film (n=41), the distribution of articles among the five data sources were: (a) *San Jose Mercury News* (n=22); (b) *New York Daily News* (n=7); (c) *Denver Post* (n=24); (d) *McClatchy Tribune* (n=7); (e) *USA Today* (n=6). For the sample taken from four years after the release of the film (n=23), the distribution of articles among the five data sources were: (a) *New York Daily News* (n=8); (b) *Denver Post* (n=6); (c) *San Jose Mercury News* (n=24); (d) *McClatchy Tribune* (n=3); (e) *USA Today* (n=3).

Data Analysis

To develop frames, I read through all the articles to review them for emergent frames. A codebook (Appendix A) guided this process so that the analysis meets the aims of the research questions. This procedure is what Lindlof and Taylor (2011) describe as "inductive" and "reflective" (p. 243, 246). Prior research has performed this coding and analysis using both inductive and deductive strategies, but given that there is no theory that guides what I expect the frames to be, I have chosen to use a data-driven approach that allows the frames to emerge for themselves. By searching for patterns within the data, the frames emerge to the researcher (Braun & Clarke, 2006). Within this process, I noted any material that can be used to generate initial frames. After the preliminary reading of the articles was completed to generate these initial

frames, I revisited the data to classify content into those initially generated frames, as has been done in previous framing research on related subject matter (Cassilo & Sanderson, 2018). This process of refining and clarifying frames continued until new observations did not add to existing frames. For this research, the unit of data is the article, which includes the headline and body copy. Other aspects of the article, including photographs, videos, and associated captions, were not be included. Finally, the research questions call for a comparison of frames based on time period, and therefore, I coded each time frame separately and fully before moving on to the next and restarting the analysis process, beginning first with the September 2012 collection and moving chronologically. Each article was assigned frames using Microsoft Excel as an organization tool. There was no limit to the number of frames for each article.

Phase 2 – Journalist Interviews

Interviews

The qualitative interview is a research method that provides in-depth information from an informant's experiences and perspective about the focus of research (Turner, 2010). It includes open-ended questions, while encouraging informants to give their unique viewpoint on the topic of interest (Mishler, 1986; Spradley, 1979). I paid close attention to any language the informant uses to help establish the structure of the world in which they are considered an expert. When examining media coverage, interviews with journalists allow researchers to contextualize the coverage itself while also adding another layer of examination by focusing on story construction and news production practices (Besley & McComas, 2007). A journalist can be a good source for data collection because they demonstrate all the traits of a good informant and should also have experience in whatever is the researcher's focus (Lindlof & Taylor, 2002). Furthermore, as

professional communicators, journalists are expected to be able to articulate their own practice and contextualize media coverage.

Journalists have often been interviewed to examine different aspects of media coverage. Such purposes have included to understand the forces that influence environmental news coverage (Yang, 2004), the factors that exist in news coverage of political leaders (Besley & McComas, 2007), and how media use conflict frames (Jamieson & Entman, 2004). This method has also used in the context of sports, including how topics are chosen for coverage within the sports department of a media outlet (Knoppers & Elling, 2004), the experience of covering modern soccer in the English Premier League (Coombs & Osborne, 2012), and the identity of being a female sports journalist (Hardin & Shain, 2006). Additionally, interviews are often in combination with other methods (Hatch, 2002), and journalist interviews are no exception. They have been combined with analysis of media coverage in many prior studies (e.g. Strömbäck & Nord, 2006; Williams, Harte, & Turner, 2015) to fully answer research questions and contextualize other data.

Sample and Data Collection

For the interview portion of this research, a sample of eight journalists was used. The sample included a diverse set of reporter location, experience, gender, and race, among other parameters. According to Rubin and Rubin (2011), "When each additional interviewee adds little to what you have already learned, you stop adding new interviewees" (p. 72). That point of saturation was reached after eight interviews. To assure the interviewees were experts within this area of research, purposive sampling was used to select the sample. This form of sampling occurs when a researcher uses his or her best judgment to choose the participants for the sample based on the goals of the research (De Vos, Strydom, Fouche & Delport, 2011). Given the

importance to the research of including journalists who can speak to the context and news practices related to covering football and head injuries in the NFL, a purposive sampling technique is appropriate. Journalists from media organizations that cover the NFL were targeted and only those journalists whose primary responsibilities included NFL coverage during the time period of the print article sample (2012-2017) were included. Given the research questions and the aim of the research, it is imperative that the sample included individuals who can speak to the context and news practices related to covering the NFL and head injuries. This is especially important, as the data from the analysis of media content guided the structure of the interviews. A Google search and Twitter search were used to find journalists who covered the NFL during these time periods and email was used to contact the journalists. The email explained the overall aim of the research while also detailing how journalist interviews would contribute to the study. The structure, format, and length of the interview was also detailed, and the participants were informed their identity would remain confidential. After one week, if the journalist did not respond, a follow-up email was sent. This continued until a sufficient sample size was generated.

The interviews used with participants were semi-structured (Merriam, 1998). As recommended by Patton (2002), they included various forms of questioning, such as experience and behavior questions, opinion and value questions, feeling questions, knowledge questions, sensory questions, and background/demographic questions. The interview itself followed an interview protocol (Appendix B) pertaining to the research focus and the first phase of the research. Because this is guided by the first phase of research, it was not developed until Phase 1 was complete. A protocol can help guide the researcher to stay on the agenda related to the research questions (Yin, 2014). Such a framework should allow flexibility to discuss additional issues related to the research focus (Rubin & Rubin, 2011). With permission from participants,

the interviews were recorded so that I could go over them again in their entirety after meeting with participants and transcribe them for analysis. Recorded interviews also capture data with more reliability than hand-written notes (Hoepfl, 1997). The interviews were conducted via telephone, as this was logistically the most sensible strategy given that the sample included participants from many different areas of the country. Only one round of interviews was conducted with each participant. This is sufficient because all data collection of media frames was completed prior to the interviews and the interviewees were discussing past experiences. Therefore, there was no need for an additional round of interviews. Each interview lasted approximately 30 minutes, which gave an appropriate amount of time to address the questions within the interview protocol, while also allowing for open-ended responses from the participants, as well as follow-up questions. Finally, I obtained contact information for all participants in case any clarification is needed and permission for their interviews to be included in the study.

Data Analysis

The goal of data analysis for interviews is to arrange the transcripts in a way to both increase the researcher's understanding while also being able to present the findings to others (Bogdan & Bilken, 1998). To do this, I looked for themes and patterns within the interview transcripts that aided in providing that explanation. For a qualitative study like this, it is expected that data analysis will be conducted simultaneously with data collection (Rubin & Rubin, 2011). This allows for follow-up questions within the interview process that confirm or pursue themes related to the research questions. To organize data following the interviews, I began by transcribing all the interviews. Once the interviews were transcribed, I engaged in an analysis of the data by identifying any themes or patterns that emerged. To perform this task, I engaged in a

coding process as outlined by Rubin & Rubin (2011). This began by creating labels or tags for pieces of data, and to do so I used Microsoft Excel as an organization tool. To establish coding categories related to the research questions, all related codes were clustered together around a single larger theme or concept. Within this process, I relied on an inductive analysis that identifies emergent themes related to the research. I also engaged in an open coding process (Straus, 1987) that allowed me to return to earlier interview sessions to verify any themes or patterns that emerged later in the data analysis process. Each interview was assigned frames using Microsoft Excel as an organization tool, and there was be no limit to the number of frames for each interview.

Ethical Considerations

Qualitative research often leads to different types of ethical issues than quantitative research because the risk of human harm is comparatively rare (Nespor & Groenke, 2009). The major concerns that do exist are deception, manipulation, and the revealing of secrets. Before beginning my research, I submitted an IRB application for approval, as this is the standard to ensure that any human subjects research is conducted ethically (Yin, 2014), and I was granted approval. I also preserve confidentiality of the participants by identifying them by a number rather than a name and never referencing their work organization in the dissertation. This diminished any concern that private information will become public (Hammersley & Atkinson, 1983). Finally, I kept an audit and record of everything I did in the study so that other colleagues could check my research procedures (Yin, 2014), including whether the research was conducted ethically.

Chapter 4

Findings

In this chapter, I will present the results of the study examining the media coverage trends of head injuries within professional football as well as the interviews conducted with NFL beat writers. The media framing data indicated that a shift in coverage occurred that gave more attention and focus to the health issues related to head injuries and playing football. The journalist interviews contextualized those findings by showing how occupational factors impact media coverage frames. The interviews also discussed the role of *League of Denial* in understanding news frames, while also suggesting some other factors that may have influenced media coverage of head injuries in football. Within the following sections, the results will be introduced in the order of the corresponding research question.

Phase 1- Textual Analysis

Examining coverage patterns around head injuries

RQ1 examined the media coverage frames of concussions and head injuries in the NFL both before and after the release of *League of Denial*. The research question was separated into three parts: (a) coverage before the release of *League of Denial* (Sept. 5, 2012-Oct. 5, 2012, and Sept. 3, 2013-Oct. 3, 2013); (b) coverage after the release of *League of Denial* (Sept. 4, 2014-Oct. 4, 2014, and Sept. 7, 2017-Oct. 7, 2017); and (c) a comparison of the frames within those time periods. The results will be displayed in this order. These four time periods had a varying range of articles, as evidenced here: Sept. 5, 2012-Oct. 5, 2012 (n=124); Sept. 3, 2012-Oct. 3, 2013 (n=147); Sept. 4, 2014-Oct. 4, 2014 (n=41); and Sept. 7, 2017-Oct. 4, 2017 (n=23). This is a finding in itself, as it shows the ebbs and flows in coverage. Head injury content proved to be largely case based, and if the newspapers that were included in the sample did not have a local

player sustain a head injury during the time period, then coverage was limited on this subject matter. Issue-based coverage examining head injuries still existed but case-based coverage drove most of the content.

One year before *League of Denial* release. Through the analytic process described above, media coverage of head injuries and concussions in the NFL during this time period led to nine emergent frames. Multiple frames could exist within the same article. The nine frames were: (a) player status (44.4% of 124 articles); (b) impact on team (32.3%); (c) culture of football (31.5%); (d) downplaying head injuries (30.6%); (e) player safety (29%); (f) Head injuries impacting football's future (14.5%); (g) changing mindset (8.9%); (h) blame for NFL (6.5%); and (i) long-term effects (5.6%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses. Two prevalent cases in coverage within this time period were a concussion to New York Jets player Darrelle Revis and Oakland Raiders player Darius Heyward-Bey.

Player status (n=55). The most prevalent frame within media coverage during this time period was discussing the concussion or head injury in terms of when a player would return to playing in games rather than any sort of larger context of the injury. The tone of these articles was very matter of fact and often had little elaboration. This included updates on the player's status, including, "Revis' status for the Jets' Week 2 test in Pittsburgh remains uncertain" (Mehta, 2012a); and, "Running back Ahmad Bradshaw (neck), offensive tackle David Diehl (knee) and another receiver, Domenik Hixon (concussion), are out as well" ("NFL briefs", 2012a). This also included instances in which there was no elaboration on an injury that a player sustained within a game, such as, "Snapper Jon Condo, a two-time Pro Bowler with the Raiders, went out in the second quarter with a concussion" (Mihoces, 2012b). Within this frame, the focus was not on the

player's health, but instead how quickly they could play again. This includes, "Raiders wide receiver Darrius Heyward-Bey on Friday spoke for the first time publicly since suffering a concussion and strained neck against the Pittsburgh Steelers. He said he can't wait to get back on the field" (Corkran, 2012). In these cases, the player often expressed desire to return to play, including, "Long-snapper Jon Condo said he has passed two NFL-mandated tests related to his concussion and is hopeful of passing two more and being cleared to face the Dolphins" (McDonald, 2012a).

Impact on team (n=40). In many cases, a player's concussion or head injury was discussed in relation to how it impacted the team rather than the player or any larger issue. Player health was seemingly ignored and instead there was a focus put on "more important" aspects like how the team would play in his absence or winning. Some of the discussion was focused on how that injury affected the team during the rest of the game, including, "The problem was that the face of that unit took a pretty fierce blow to the head and missed part of the fourth quarter, and the defense clearly slipped without him" (Ackert, 2012). Other discussions revolved around how that injury impacted the team in the future, such as, "With Darrius Heyward-Bey out with a concussion-neck injury, that limits the Raiders down the field a little more" ("Game plan", 2012). A head injury was also categorized as impacting a team's enjoyment for a victory. For example, "The Jets received a bit of disconcerting news the morning after a feel-good blowout of the Bills on Sunday" (Mehta, 2012a). In some cases, the injured player was referenced as an inspiration to this team, such as, "The Raiders were down 31-21 at the time of the injury, but scored 13 consecutive points to beat Pittsburgh. Was DHB an inspiration?" (Barber, 2012).

Culture of football (n=39). Within this frame, reporters discussed violence and masculinity as being a part of football's identity that was impossible to eliminate. Somewhat

similarly to the previous two frames, there was a commonality to these injuries, and in this frames, that commonality was explained further. Some articles focused on the players' willingness to play through pain, including, "He stayed on the field, never missing a snap. The concussion was diagnosed after the game" (McDonald, 2012b). Other articles included reference to the prevalent nature of getting hit within a professional game, such as, "You've felt that fear the 36 times that Vick has been hit or sacked in his three outings this season, and you'll feel it again when Jason Pierre-Paul and the Giants come this Sunday" (Samuel, 2012). Other reporters discussed the violence as being a part of what football is. This included, "In football, you are either the hammer or the nail. There's no in-between" (Padecky, 2012); and, "In the violent game we enjoy, played by men of courage, it's the sound you never want to hear and the sight you never want to see" (Poole, 2012). Finally, this frame included the idea that all players are replaceable and when a player gets hurt, the next man is up. Examples included referencing who would replace the injured player, such as, "If McClain can't play, three-year veteran Travis Goethel would start at middle linebacker" (McDonald, 2012b); and "Myers is keeping his head on swivel both literally and figuratively, knowing how the NFL works, and was pleased the team didn't see the need to bring in another tight end after releasing Kevin Boss in the offseason" (McDonald, 2012g).

Downplaying head injuries (n=38). Within coverage, there were many instances in which the seriousness and impact of head injuries within football was downplayed either by the reporter's language or by information within the story. While other frames may have downplayed the injuries by a lack of focus, these articles included more active attempts to dismiss the importance of the injury. For instance, the injury was sometimes described as "worth it" within the grand scheme of the game, including, "It came on a clutch catch from Palmer on

third-and-10 from Oakland's 25 on their game-winning drive" (McDonald, 2012f). In other instances, there was an assumption that concussed players will be fine as long as they have time to recover, such as, "A few extra days might have helped them get back on the field" (Smith, 2012). In other cases, it was the lack of attention the concussion received in coverage that contributed to this theme. It was sometimes treated as a footnote, thrown into the story, such as, "Porter and Irving, who left the game after suffering a concussion on punt coverage, were the only Broncos defensive players announced as injured after Sunday's loss" (Jones, 2012). Finally, concussions were downplayed by stressing their commonality and similarity. This included, "Like Darrius Heyward-Bey, tight end Brandon Myers also was dealing with a concussion -- also from a helmet-to-helmet hit" (McDonald, 2012f); and, "Allen likened his situation to that of long snapper Jon Condo a week ago. Condo ended up playing against Miami. Francies, like McClain, was limited at practice and listed as questionable with a concussion" (McDonald, 2012c).

Player safety (n=36). In a stark contrast from other frames, when a player did sustain a head injury, there were often instances of media coverage that focused on the concern for the player's health. Such frames included describing the fear surrounding a head injury, "For the second straight season, Raiders wide receiver Darrius Heyward-Bey was carted off the field with a serious injury. This one was truly frightening" (Barber, 2012). Other instances of concern for player safety included discussion of the league's concussion protocol. For example, "NFL protocol stipulates that Revis, who rode a stationary bike at practice for the second consecutive day, must be cleared by the team doctor and an independent neurologist before practicing" (Mehta, 2012b); and, "Middle linebacker Rolando McClain was listed as questionable and will continue to work through the NFL concussion protocol" (McDonald, 2012c). The high level of caution surrounding these injuries was often emphasized within coverage, including, "Revis said

he has never previously suffered a concussion - not at Aliquippa (Pa.) High School in Steelers country, at Pitt or in the NFL. He noted that he felt good before, during and after practice, but recognized the importance of being cautious" (Armstrong, 2012). Within this frame, the complicated nature of concussions was also referenced, such as, "He was medically cleared to play, but concussion issues can resurface ("Key injuries", 2012).

Head injuries impacting football's future (n=18). The "player safety" frame wasn't the only frame that took the head injury issue seriously. This frame took the issue a step further, as across the coverage, concussions in football were often discussed within the context of the sport's future. In some cases, head injuries were categorized as a major issue for the NFL, including, "All in all, it made for the perfect storm of awful springtime news, perhaps the worst offseason any league has ever endured, especially concerning issues that strike to the sport's very core" (Brennan, 2012). In respect to the severity of the lawsuit filed by former players against the NFL, it was described as, "A frivolous lawsuit this is not" (NLVL, 2012). On a grander scale, football as a sport was described as being at a crossroads. This includes, "America's most popular sport, a $10 billion business, a boon for bars and restaurants - and one of the best ways to spend a Sunday afternoon or Monday night - is at a crossroads" (NLVL, 2012). In particular, CTE was categorized as the major threat to football. For example, "That's the degenerative brain disease found in too many deceased NFL players that's at the heart of the suit against the league and helmet maker Riddell filed by ex-players whose numbers have reached 3,400 and still counting" (Richmond, 2012). This theme also included examples of how the NFL is trying to solve these problems, including, "Everything Goodell has done has been done under the pretense of safety, from rules changes to enforcement of penalties and heavy fines for helmet-to-helmet blows" (Dudley, 2012).

Changing mindset (n=11). Prior frames established opposite views on concussions, and this frame focused on how a shift from one view of head injuries in football to the other. In the coverage during this time period, reporters often discussed a pattern of moving from glorifying football's violence towards a greater emphasis on health and player safety within football. Often reporters referenced this shift in focus, including, "Athletic directors, coaches, trainers and players (and hopefully many parents) are being much educated about concussions, how to deal with them and, extremely important, how to prevent some of them" ("A concussion", 2012); and, "In addition to the lawsuits against the league, still in federal court, the focus on concussions was heightened during the offseason by the suicide of former NFL star Junior Seau and the league crackdown on a bounty program by the New Orleans Saints" (Lloyd & Mihoces, 2012). This also included reference to players expressing regret over causing a concussion, such as, "He said the Steelers' Ryan Mundy, fined $21,000 for the hit, texted an apology" (McDonald, 2012h). Reporters suggested that part of this changing mindset is due to increased information. Such information included, "There are 125 brains registered to Boston University's center, and of those CTE has been found in 18 of the 19 former NFL players" (Lloyd & Mihoces, 2012). This frame also includes the belief that such changes are a natural progression within the sport, such as:

> Remember, once they played football without facemasks, mouth guards. Once players were allowed to horse collar a tackle, yank on a helmet and slap an ear hole. Once when a player got his bell rung, trainers would stick some ammonia gas, aka smelling salts, under the nose, and the player would perk right up, as if he was overcaffeinated. Once tacklers led with their helmets (Padecky, 2012).

This example gives a series of relevant examples of how the sport has changed.

Blame for NFL (n=8). In some cases, the coverage looked to assign blame for the prevalence of concussions within the NFL, and that blame was often left at the feet of the league

itself. This was different from other frames that were somewhat critical of the health issues within the sport but stopped short of identifying a source for the problems. Coverage included research that stated how dangerous the NFL was for players, including, "Former NFL players are far more likely to die from brain disease than the general public, a federal workplace safety agency concludes in a study released hours before the NFL kicked off its 2012 season" (Mihoces, 2012a). Furthermore, the safety measures the league does use were criticized for not working, such as, "They claim the helmet does little to protect the head from a sideways collision. They studied and charted all the top maker" (Padecky, 2012). The NFL was also described as promoting an atmosphere of unnecessary violence that led to these injuries. For example, "Four games into that season, Vinson Smith laid him out cold again with an elbow to the temple in a 34-28 victory over the Chicago Bears that left the surprising Rams at 4-0" (Richmond, 2012). Finally, this coverage included allegations that the NFL concealed information about the effects of playing football, such as, "Further alleged: NFL brass concealed research linking concussions to dementia, depression and other disorders" (NLVL, 2012).

Long-term effects (n=7). While the "player safety" frame examined immediate concerns for when a player sustains a head injury, this frame included a look at their lasting effect. An emerging theme within coverage was highlighting the long-term effects and dangers that result from head injuries in football. This included reports of how concussion effects can linger and never fully go away, such as, "But the concussion issues resurfaced with a vengeance after he signed a three-year, $9 million deal as a free agent with the Rams, who were in their last season in Anaheim, Calif., before moving to St. Louis" (Richmond, 2012). Other articles included reference to how concussions can end a player's career, including, "Frank Wycheck saw his 11-year NFL career end because of concussions" (Mihoces, 2012a); and, "Pressed into duty on

Monday Night Football against the Oakland Raiders, a sixth concussion ended Miller's playing career for good after just his third game" (Richmond, 2012). Within this frame, reporters would also reference some of the specific long-term effects that result from concussions. For example, "McMahon is among dozens of retired players suing the NFL for concussion-related dementia and brain trauma" ("NFL briefs", 2012b). There was also reference to suicide being related to head trauma, such as, "It's not just the suicides of Dave Duerson, Junior Seau and Ray Easterling, or autopsies that have detected characteristics similar to degenerative brain diseases in many ex-NFLers" (NLVL, 2012).

Immediately before release of *League of Denial*. Within the second time frame, data analysis found that media coverage of head injuries and concussions in the NFL during this time period led to nine emergent frames. Multiple frames could be present in each article. The frames included: (a) focus on player return (67.3% of 147 articles); (b) taking head injuries seriously (48.2%); (c) culture of football (32%); (d) not taking head injuries seriously (29.3%); (e) impact on team (15%); (f) assigning blame (13.6%); (g) head injuries impacting football's future (12.2%); (h) defending the NFL (11.6%); and (i) ambiguity of concussions (6.8%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses. A much-discussed case during this time period was a concussion for Oakland Raiders quarterback Terrelle Pryor.

Focus on player return (n=99). Within coverage of head injuries there was an emerging pattern of a focus on when a player would return and what that return meant for the player himself, but not in a health context. Similar to the "player status" frame of the first time period, any effects of injury were almost entirely ignored. For instance, a player's return was described in terms of what he would need to do right away to get up to speed, such as, "Now Amukamara

can focus on memorizing the game plan for the Broncos' dynamic receiving corps" (Tasch, 2013). In other instances, the accolades of a player were highlighted as a benefit of returning, such as, "If Wolfe starts, it will keep alive his career streak" (Frei, 2013). In some cases, the lack of availability of a player was discussed in terms of wins and losses. But in most cases, this manifested itself in concentrating on when the player would return from injury, such as, "He is hopeful Pryor will be able to face the San Diego Chargers in Week 5" (McDonald, 2013f); and, "The receiving corps takes a hit with Hill (concussion) unlikely to play and Santonio Holmes out" (Turner, 2013). Some of this included speculation from the journalist on when a player would be back, such as, "Reid should be cleared Saturday if post-concussion symptoms don't surface, as has been the case since he got hurt making a tackle in Sunday's second quarter at Seattle" (Inman, 2013c).

Taking head injuries seriously (n=71). There was also a pattern within coverage of taking the head injury issue in football seriously. This was seen in both examples and advocacy. For instance, there was a focus on the increase in research regarding the topic, including, "Numerous studies show that football, of all sports, has the most concussions" (Hochman, 2013); and, "Finding those answers is why Jones and former teammate Ronnie Lott will join some of the country's leading brain-injury experts Thursday at a Santa Clara University symposium that will examine the crisis of head trauma in sport" (Almond & Emmons, 2013). This theme also manifested itself in criticism of others, including media members, who celebrate big hits. For example, "Another area ripe for improvement is the attitude of some sports media, fans and players who celebrate the most bell-ringing hits and treat players like characters in video game fantasies" ("NFL gains", 2013). In these instances, the coverage took head injuries seriously by calling out others who did not, as a form of policing journalists who do not cover concussions

"the right way" was born. Another way reporters took the issue seriously was by describing in detail the violent nature of the plays that lead to head injuries, such as, "In that instance, Meriweather launched himself at Lacy with his head up, but Meriweather appeared to lower his helmet at the last instant, striking Lacy near the jaw and violently snapping his head backward" (Brady & Mihoces, 2013). In coverage, teams were characterized as beginning to treat each concussion differently, including, "Given the fact cornerback Tracy Porter was cleared to practice Wednesday, despite also suffering a concussion Monday night, Pryor's concussion has been deemed more severe" (Corkran, 2013b).

Culture of football (n=47). Within this coverage, concussions and head injuries were discussed as being a part of the violent nature of football. As is similar to the last time period, this is a common frame and is almost used as a defense for a lack of suitable safety measures within the sport. For instance, when a player gets hurt, he is viewed as replaceable, and the attention often immediately turns to who will replace him: "James Starks will get the start at running back Sunday for the Packers against the Bengals with rookie Eddie Lacy recovering from a concussion" ("NFL briefs", 2013). Furthermore, promoting safety within sport was described as sacrificing some of the sport's masculinity, including, "As hard as it is to believe now, football was played without helmets not too long ago. Players from that day and age are viewed as tougher, in some instances, than players today" (Bennett, 2013). In other instances, head injuries were viewed as a natural byproduct of the larger players within the sport today. For example:

> The laws of physics say that hits by bigger, stronger, faster players do more damage, and the number of supersized players has grown exponentially in recent years. Instead of pushing to test for human growth hormone, or HGH, the NFL Players Association has dragged its feet on a testing regime ("NFL gains", 2013).

A large part of this frame connects to the belief that football is just an inherently dangerous game, and that was seen in coverage, including, “He used the word ‘deadly’ to describe today's game and said he has urged his grandchildren to try any other sport but to stay away from football” (Baine, 2013.

Not taking head injuries seriously (n=43). This frame was in direct contrast with the “taking head injuries seriously” frame and appeared in far fewer articles (71 to 43). In the cases within this frame, the coverage displayed evidence of how concussions in the NFL were not treated as a serious issue either by the reporter or by the league itself. For instance, some players expressed an unwillingness to adjust their style of play to make the game safer, such as, “Even though one hit cost him $42,000 and another knocked him unconscious, Brandon Meriweather said Friday he doesn't know how much he'll change the way he tackles” (Boyer, 2013b). There was also often debate over whether a hit that led to a concussion was illegal or not rather than focus on the injured player, including, “Allen said he didn't see anything illegal about Woodyard's hit. He also said that the jarring blow won't affect the play-calling from here on out” (McDonald, 2013a); and,

> Shanahan said Monday he was uncertain as to whether Meriweather's hit on Lacy was legal, though he believed the hit on Starks was. Packers head coach Mike McCarthy, meanwhile, told Green Bay-area reporters that he believed both hits were illegal (Boyer, 2013a).

In other instances, the head trauma issue was described as receiving too much attention, such as, “Despite the settlement and media spotlight on head injuries, many football fans believe the issue has been overblown” (Almond & Emmons, 2013). The lack of seriousness also came from players who declared themselves healthy before gaining medical clearance, including, “The team might be getting even more good news: Jeremy Kerley (concussion) also said he would be able

to play Sunday. Kerley hadn't been cleared by the team yet, but said he began feeling better several days ago" (Walder, 2013b).

Impact on team (n=22). Although this is the second most prevalent frame in the first time period, this frame was seen far less often within this section of the data, perhaps suggesting less reporter willingness to frame a head injury in terms of the team rather than the player. The examples within this frames showed that not all concussion coverage looked at the player in relation to the concussion. A pattern emerged of discussing the head injury in relation to the team. For instance, the importance of winning was in some cases valued higher than player health, such as, "Because suddenly this whole franchise rides on Pryor's shoulders, at least for now. There is no other quarterback worth playing, or watching, or cheering" (Kawakami, 2013). There was also discussion of the strategic impact a player's return would have for a team, including, "If quarterback Terrelle Pryor is able to return after sustaining a concussion on Monday, which is still uncertain, the Raiders will be able to utilize the zone-read option--a play that bugged the Redskins in the opener against the Eagles" (Boyer, 2013e). Coverage also included how a concussion impacted an opponent, such as, "San Diego will likely try to go after a secondary that gave up 276 passing yards and two TDs in the second half and will be without starting cornerback Bradley Fletcher, who suffered a concussion at Washington" (Patton, 2013b); and, "Redskins nose tackle Barry Cofield said the team is preparing for Pryor, and not Flynn, to be the quarterback" (Boyer, 2013d). In some cases within coverage, the coach would use the secrecy around a concussion to his competitive advantage, such as, "Allen said he isn't going to make a definitive announcement for competitive reasons. But he made it sound as if there's a realistic chance of Pryor starting ahead of Matt Flynn" (Corkran, 2013c).

Assigning blame (n=20). Another emergent theme within coverage was discussing the overall issue of head injuries in football by assigning blame to them. While the previous time period included a frame that assigned blame only to the NFL, this frame included many sources of blame.Still, most of that was targeted at the NFL, including, "Last week, the NFL agreed to a $765 million settlement with a group of 4,500 former players who claimed the league concealed the dangers of repeated concussions" (Blain, 2013); and, "The scandal was made up by the NFL, a league that is actively trying to suppress information about the danger of the sport" (Hadsall, 2013). The NFL was further described in some coverage as only making changes because of pressure, such as:

> So give the NFL credit for change, but keep in mind this reformation didn't spring solely from altruism. It wouldn't have happened without pressure from Congress, scorching publicity, suicides by several ex-players and a massive lawsuit charging that the league misled players about the long-term dangers of concussions ("NFL gains", 2013).

In other instances within coverage, the player himself was blamed for any sort of head injury he incurred, including, "What could have shaped up as a battle between two of the NFL's most gifted athletes is instead a cautionary tale on the perils of being a quarterback that runs the ball" (McDonald, 2013c); and, "The concussion he suffered against the Atlanta Falcons in Week 5 last season could have been avoided if he had gotten out of bounds sooner" (Bell, 2013). Elsewhere in coverage, the team was blamed for how the concussions were handled, such as, "In response to Fox Sports and ESPN reports that said the Raiders handling of the concussion will be reviewed, Allen reiterated he believes the club complied with the protocol" (McDonald, 2013b); and, "The NFL Players Association is reviewing whether the Raiders followed the league concussion protocol" ("Raiders quarterback", 2013).

Head injuries impacting football's future (n=18). Within this time frame, head injuries ignited a discussion on the future of football and the NFL. The prevalence of this frame was very

close to the first time frame (14.5% to 12.2%), thus showing the continuing concern that coverage had about the "bigger picture" in relation to head injuries. Included within this theme was discussion on whether change to "save" football can happen right away, such as, "Washington nose tackle Barry Cofield thinks it will take time before rules changes and attitude adjustments lead to a cultural shift" (Brady & Mihoces, 2013). Furthermore, there is discussion about whether the *League of Denial* documentary can be a turning point for how football is viewed. For example:

> Pro football is bracing for the upcoming book, "*League of Denial: The NFL, Concussions and the Battle for Truth,*" written by ESPN reporters Mark Fainaru-Wada and Steve Fainaru, who are scheduled to speak at the conference. Already the book has triggered some controversy as ESPN has withdrawn from its collaboration with PBS' Frontline for a two-part program in early October, timed to the publication. The league has denied charges that Commissioner Roger Goodell pressured the network to drop out of the project (Almond & Emmons, 2013).

This concern over the sport's future includes a focus on youth levels, such as, "Several former NFL stars have said they wouldn't let their sons play. Participation in youth leagues is down" ("NFL gains", 2013). Within this frame was also conversation about how the NFL is in no danger, including, "Even so, it's clear that football's popularity -- from youth leagues to the NFL -- has not been hurt by a growing body of research that links concussions to brain damage" (Almond & Emmons, 2013). Other coverage offers suggestions to save the sport, such as "Perhaps the future of youth football is flag football" (Hochman, 2013).

Defending the NFL (n=17). Other frames in this and the previous time period have laid blame at the feet of the NFL for its role in head injuries. However, not all discussion of the NFL was a critical one. As part of the coverage during this time period, a pattern emerged of defending the NFL for how they handled concussions in the past and how they continue to handle them today. Some of this was performed by the NFL itself, as it put a positive spin on its

involvement in the league's concussions settlement, "When the settlement was announced last month, Goodell described it as the best outcome for both parties" (Almond & Emmons, 2013). In instances in which there were questions about whether concussion protocol was followed, the NFL supported the team, including, "The NFL said earlier that it believed the Raiders did follow the right procedures after Pryor was injured" (Corkran, 2013b). The team would often echo that defense, "A team spokesman said Kerley had been evaluated during the game and had passed a concussion test. Additionally, he passed a postgame test, the spokesman said" (Walder, 2013a. In some cases, the NFL was credited with having efforts to help alleviate the concussion issue. For example, "The NFL will undoubtedly continue in its attempts to make the sport safer by better protecting players" (Davis, 2013). Additionally, there were cases of referencing fines for illegal hits, including "The league took action on safety Michael Griffin, who put the big hit on Hill. Griffin was fined $21,000 for his shoulder-to-helmet hit" (Armstrong & Walder, 2013).

Ambiguity of concussions (n=10). An emerging theme within this time frame was a lack of clarity about the concussion issue and the symptoms and diagnosis of a concussion. As the findings related to the reporter interviews will later discuss, this was largely a result of reporters not having access to medical personnel who can give information about head injuries Adding to this ambiguity, some articles mentioned that concussions can go undiagnosed, such as, "He has no regrets about the way he played, despite the fact Lott estimates he suffered at least 20 concussions, most of them undiagnosed" (Almond, 2013). Within coverage, players who sustained a discussion sought out other players who could understand what they were going through, such as, "With all the talk today about concussions in the NFL, it made Amukamara ask teammates how they felt after enduring one" (Tasch, 2013). Coverage also emphasized an unknown element about concussions, including, "But just how much contact is relatively safe

remains subject to debate even among experts" (Almond & Emmons, 2013). This unknown leads to a lack of clarity related to the status of the player, including, "In addition to saying that he didn't have a feel for whether Terrelle Pryor might have to miss a game or more because of the concussion he suffered in the fourth quarter…" *(*Klis, Niesen, & Frei, 2013).

One year after the release of *League of Denial*. The third time frame was the first that included data analysis of head injuries and concussions in the NFL after the release of *League of Denial*. This time period led to eight emergent frames and multiple frames could be present in each article. The frames included: (a) player status (46.3% of 41 articles); (b) seriousness of head injuries (43.9%); (c) culture of football (39%); (d) impact on team (26.8%); e) downplaying head injuries (22%); (f) gray area (22%); (g) changing mindset (9.8%); and (h) NFL's role (7.3%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses.

Player status (n=19). As was the case with the previous time periods, a player's status and his return to the field was the most common frame within this time period. This pattern of coverage was largely focused on when a concussed player would be able to play again. This mostly centered on his anticipated return, such as, "Middle linebacker Nick Roach, who missed the Jets game with a concussion, was on the field but there was no word if he had been cleared to play" (McDonald, 2014a); and, "RB Eddie Lacy has been cleared to play after a concussion" (Gola, 2014). In some cases, there was also an emphasis on how many games that player needed to be held out, including, "Welker missed the last three games of last season with a concussion and the first two games this year because of a suspension" (Klis & Renck, 2014). Within this frame, there was also focus on the player's status on the team upon his return. For example, "Whisenhunt said that when Wreh-Wilson becomes healthy he would re-evaluate whether to

move him from a starting corner spot to nickel back and slide veteran Coty Sensabaugh outside" ("Titans cornerback", 2014).

Seriousness of head injuries (n=18). As previous time periods have indicated, more and more attention was being paid to the seriousness of head injuries, both as an overall issue and as on a case-by-case basis. From the coverage, a pattern emerged of treating head injuries and concussions in the NFL as a serious issue. Reports within this coverage did not assume any player who suffered a concussion would easily return from injury, including, "If he has a setback, the starting assignment might go to veteran Chris Cook or rookie Dontae Johnson, who played well in last week's opener against the Dallas Cowboys" (Brown, 2014). Other coverage indicated the seriousness of head injuries by bringing in examples of players who sustained them and later committed suicide. For example, "Former NFL players who committed suicide, including Junior Seau, Dave Duerson and Ray Easterling, were diagnosed after death with CTE" (Mihoces, 2014). Because of the prevalence of risks, coverage described players as "lucky" if they were able to retire without any health issues, such as, "He is a retired NFL player, a man who is smart and thoughtful and somehow has all his faculties, even though he played in an era when concussions were called 'bell ringers' and you went back into the game in a play or two" (Coffey, 2014). Coverage also indicated a fear among players of one day feeling long-term effects of playing football, including, "He said he has enjoyed good health since he retired from the NFL, but became worried in recent years about the condition of his brain and has watched several teammates struggle with cognitive and emotional problems" (O'Keefe, 2014b).

Culture of football (n=16). This is one of the few frames that was prevalent in each time frame. This frame was again among the most common seen in the media coverage. This time frame included coverage that framed head injuries and violence as being a part of football.

Within this coverage existed the "next man up" philosophy of replacing the injured player, such as, "Dahl got summoned first once Bethea sustained a concussion in the second exhibition" (Inman, 2014d); and, "Tamme has played some in Welker's place, in addition to his usual assignment as a backup tight end and a special teams player" (Moss, 2014a). Football was also described in coverage as being inherently violent, such as, "Goodell didn't create this violent culture any more than he is the only one to blame because the NFL was slow to recognize the epidemic of traumatic brain injuries to their players, across generations" (Lupica, 2014). This frame also included examples of how hegemonic masculinity is admired in football. For instance, "Even after three concussions in nine months, Wes Welker runs into the teeth of the defenses on underneath routes. He braces for hits" (Renck, 2014b).

Impact on team (n=11). This would be the final time period that the frame "impact in team" would be included, thus suggesting that even after the release of the documentary, some coverage framed injuries in terms that did not include a focus on health and player safety. In some cases, coverage reflected a pattern in which the head injury was framed within the context of how it impacted the team. This wasn't always in a negative way, as the team was occasionally referred to as being able to overcome the injury, including, "Cox and Dontae Johnson acquitted themselves well when summoned to replace injured starters Chris Culliver (concussion) and Tramaine Brock (toe)" (Inman, 2014b). However, in many cases, the concussion was framed as having a negative impact on the team, such as, "The Broncos became one dimensional, unable to run the ball, part of which was traced to the loss of blocking tight end Virgil Green to a concussion" (Renck, 2014a); and, "The 49ers have lost all four games he hasn't suited up for since 2007, not to mention their past two regular-season defeats at Seattle where he prematurely exited because of a concussion and hamstring strain" (Inman, 2014c).

Downplaying head injuries (n=9). This frame provided some evidence of possible blowback to the documentary and the overall increasing focus on player safety. Not all media coverage showed a high level of attention to the effects of head injuries, as some coverage indicated a lack of concern for the issue either by the journalist or the people they covered. This frame existed in the first time period and resurfaced here. This included optimism by players that the recovery process would be quick, such as, "Lacy, according to a league source, said he is optimistic he will be cleared to play in Green Bay's next game on Sept. 14" ("Packers' Lacy", 2014). Also, in some cases there was little attention paid to the player's long-term health after he returned to action, such as, "Welker is back in the routine" (Moss, 2014b). The NFL was also described as not caring about the public opinion regarding the issue. For example, "Individual (and organized) protests have done little to sway the league from entrenched insensitive policies on concussions, domestic violence and offensive team nicknames. A $10 billion-a-year corporation won't miss a fan or two" (DeShazo, 2014). Attention was also paid to the lack of concern among fans, including, "A recent Sports Illustrated survey found that 66 percent of fans polled said recent studies of health risks have no effect on their interest in the NFL" (Emmons, 2014).

Gray area (n=9). Despite an increase in awareness for some, patterns within coverage indicated there was still a significant lack of information regarding head injuries within football. This is somewhat telling that even after the release of the film there was still a lack of understanding in some areas related to head injuries in football. For instance, coverage indicated that many fans still did not know the risks, such as, "And only 38 percent were familiar with the degenerative disease Chronic Traumatic Encephalopathy that has been found in the brains of many deceased players" (Emmons, 2014). Within coverage, there was also a lack of clarity about

what a concussion is, leaving reporters needing to guess if and when one occurred, including, "Brock returned with two minutes remaining when rookie defensive back Jimmie Ward exited with a possible concussion" (Inman, 2014a); and, "It's unclear when Wreh-Wilson suffered the injury against the Colts. He played 85 snaps, including 71 on defense, and was not listed on the official game report as having left with an injury" ("Titans cornerback", 2014). This also was evident in coverage when the report would project when a player would return from a concussion, such as "Raiders coach Dennis Allen will issue official injury designations following practice, and may opt to have both players as questionable although they appear unlikely to play" (McDonald, 2014b).

Changing mindset (n=4). Within this coverage, a pattern emerged indicating a change in mindset regarding health and safety among those around the game of football. It is worth noting that the only time period this frame did not appear in was directly before the film, thus suggesting that there might have been some sort of shift in thinking after its release. This frame includes accounts of individuals who have stopped watching football, such as, "That said, Almond takes a pretty strong stand in the book as he describes how he went from an avid football fan for 40 years to a man who considers it a matter of conscience that he not watch football" (Swalboski, 2014). This type of behavior change was described as being due to an increase in research. For example, "But in recent years, as growing research linked football head trauma and long-term brain damage, he began questioning his fandom" (Emmons, 2014). Further elaborating on this, coverage described an increase of medical awareness within the sport, including:

> A neuropathologist found "tau" - the sludge-like protein that indicates extensive damage from repeated blows to the head - during an examination of the brain of Jovan Belcher, the Kansas City Chiefs linebacker who shot his girlfriend to death before killing himself in December 2012 (O'Keefe, 2014a).

That shift in medical awareness helped drive a shift in how head injuries were viewed as a whole.

NFL's role (n=3). Additionally, a pattern emerged in coverage of the debate as to whether the NFL should be commended or blamed for its role in head injuries. In previous time periods, frames have emerged defending and blaming the NFL, but this section of coverage examined the league from both fronts. The blame for the NFL was largely over a lack of proper attention to the issue, such as, "Lawyers for Shepherd and Zoey have filed nearly identical wrongful death lawsuits against the league. The suits claim Belcher was not treated properly after suffering concussions in NFL games" (O'Keefe, 2014a); and "But if that shield can't properly protect its own players, or the women in their lives - or the children - what does it stand for, really?" (Lupica, 2014). In other instances, the NFL was credited for addressing the issue, including, "The e-mail also said the league so far has financed $161 million in CTE and related research and projects" (Mihoces, 2014).

Four years after the release of *League of Denial*. The final time period of media coverage looked at coverage of concussions in the NFL four years after the release of *League of Denial*. This time period led to eight emergent frames and multiple frames could be present in each article. The frames were: (a) dangers of football (69.6% of 23 articles); (b) game concerns (52.2%); (c) downplaying head injuries (43.5%); (d) changing mindset (34.8%); (e) culture of football (30.4%); (f) not enough being done (21.7%); (g) player concerned with safety (17.4%); and (h) assigning blame (8.7%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses.

Dangers of football (n=16). Within coverage, a frame emerged focusing on the dangers of playing football and sustaining a head injury. This was the first time period in which a frame

highlighting the risks of football was the most prevalent frame. This attention on health and safety included connecting brain injuries to suicide, such as, “The announcement last month that Aaron Hernandez had chronic traumatic encephalopathy (CTE) when he committed suicide while in prison did not come as a surprise to many former NFL players” (Perez, 2017). Part of this danger included players being unaware if they had ever sustained a head injury, including, “Worst of all for these players and other athletes is there is no reliable way to test for CTE in the living” (Perez, 2017). Much coverage focused on the long-term effects of playing football, such as, “It covers retired players who develop Lou Gehrig's disease, dementia or other neurological problems believed to be caused by concussions suffered during their pro careers, with awards as high as $5 million for the most serious cases” (de Groot, 2017). The frame was also manifested itself in coverage that showed how frequently these injuries can happen, including, “Amerson’s concussion was his third in the last year, and he had been practicing on a limited basis all week while awaiting the leagues decision necessary to play” (Schneidman, 2017).

Game concerns (n=12). Additionally, a frame emerged that looked at the issue purely from a team or “next game” perspective. This matter of fact tone was somewhat common in coverage as a frame like this existed in all time periods. Within this frame was coverage that indicated a concussed player’s playing status was a team decision, such as, “Now it’s up to the Raiders whether he suits up against Baltimore” (Schneidman, 2017). Also within this frame of the coverage were status updates related to the injured players, such as, “Broncos guard Ron Leary (concussion), safety Darian Stewart (groin) and defensive end Zach Kerr (knee) are all listed as questionable to play Sunday against the Cowboys” (Jhabvala, 2017). Coverage in this area also examined concussions related to their impact on the team. For example, “Devonta

Freeman is back from the concussion protocol as last year's top-scoring offense returns at full strength" (Middlehurst-Schwartz, 2017).

Downplaying head injuries (n=10). Even with "dangers of football" being the most prevalent frame during this time period, there was still a substantial section of coverage that seemed to eschew the importance of health in football. While some frames showed concern about concussions, there was some coverage that seemed to attempt to downplay the issue. This included coverage suggesting that a concussion was not a serious issue, such as, "Tanner Vallejo (knee) and DT Jerel Worthy (concussion) No significant injuries here" ("Gameday Week 1", 2017). The amount of interest among fans that the NFL continues to have was used to downplay any concern that brain injuries were an issue that the NFL should really worry about. For example:

> While the average TV viewership for the 2016 season dropped a bit, the NFL remained a multibillion-dollar business that generated a record $3.5 billion in advertising revenue. And the fans are not leaving. An Eagles practice last month drew a reported 23,000 people -- more than the nearly 21,000 people who showed up to watch the Phillies take on the Braves that afternoon (Shuey, 2017).

Other coverage suggested that there was a downside to gaining new information about head injuries, like discovering a CTE test for the living. For instance, "If the test is developed and implemented in the NFL, and a player discovers he has CTE, what are the emotional ramifications? How would a player react knowing he's destined for a life of agony and mental decline?" (Popper, 2017).

Changing mindset (n=8). Within this coverage was a pattern of reporting that focused on a shift towards a greater emphasis on safety. This shows the lasting effect of the increased information about head injuries in the sport, as this frame also existed a year after the release of the film. This included eschewing the idea that a team would not report a concussion, including,

"A joint NFL and players union investigation found this week there was no evidence that Brady or the team failed to follow the league's policies or procedures on concussions" ("NFL briefs", 2017). It also includes how rules have changed to focus on safety, including, "The Eagles wore kelly green for their 2010 opener, but since then, concussion concern spurred a rule change that mandates teams can only use one set of helmets" (Bowen, 2017). Within this frame are references to the available options concussed players have to aid in their recovery. For example, "However, several former NFL, college and high school football players and other athletes say they are finding success at a recovery center in Southern California that claims to help rehabilitate brains suffering from the effects of repeated and severe trauma" (Perez, 2017). Coverage also suggested that increased media awareness helped contribute to changes, such as, "There's been plenty of reporting by now to know that constant collisions in football cause traumatic brain injuries" (Shuey, 2017).

Culture of football (n=7). As with previous time periods, a pattern within coverage was describing violence and injuries as being a natural part of football. This was the only frame within the coverage that existed within each time period. For example, "It is not just a contact sport. It is a collision and contusion sport. And it is a concussion sport" (Gullixson, 2017); and, "Tom Brady doesn't worry about concussions and considers them part of playing football, the Patriots quarterback said in a television interview to be broadcast this weekend" ("NFL briefs", 2017). Within coverage, it was also expressed that the game has become more dangerous over time because of the development of players, such as, "Players are now bigger, faster and harder-hitting than in the past" (Hanson, 2017). With that, players are described as replaceable, with another player always ready to step in. For example, "Robinson's absence may require B.J. Goodson to play almost every snap at middle linebacker" (Healy, 2017).

Not enough being done (n=5). Despite the other frames within this time period that indicated an increased awareness and changing mindset, there was still coverage that indicated there was work to be done in combatting head injuries and the culture of violence in football. This time frame of coverage included a frame that not enough was being done about head injuries in football. For instance, there was the idea that the level of concern about these injuries is not high enough, including, "That's a truth that should have everyone's head ringing." (Gullixson, 2017). There was also criticism of people who were not taking the issue seriously, including President Donald Trump. For example, "Not when we have a president who thinks NFL players should just shut up and scramble their brains for our entertainment" (Brady, 2017). There was additional criticism about teams not reporting concussions, including, "Brady's wife, supermodel Gisele Bundchen, said in a May interview that the quarterback has had unreported concussions and she worried about his long term health" ("NFL briefs", 2017). Part of these concerns was coverage that indicated that without change, the NFL was in trouble, such as, "Such harm threatens to reduce the pool of future NFL players" (Hanson, 2017).

Player concerned with safety (n=4). For this time frame of coverage, an emergent pattern featured reports in which players were concerned with their own safety related to head injuries. While players have expressed concern in other time periods, it was not as pronounced as within this section of coverage. This included many former players who were worried about their health, such as, "Pro Football Hall of Fame receiver Cris Carter said he lives in 'fear of the unknown.' Husain Abdullah, who retired at 30 last year after suffering his fifth concussion, told USA TODAY Sports that former players know 'things can get bad and get bad in a hurry'" (Perez, 2017). Within coverage, it was also indicated that some players seek their own help for brain injuries, including, "The current NFL players sought treatment on their own, either as free

agents or while they were suspended" (Perez, 2017). In coverage, some players were also referenced who had stopped playing football amid health concerns, including, "Some have chosen to step away from the game out of concern about their health. But the vast majority are choosing to stay on the field despite knowing that they may face health issues in the future" (Shuey, 2017).

Assigning blame (n=2). Coverage also displayed a pattern of who and what should be blamed for the state of head injuries within professional football. As has been seen in previous sections, this blame was not assigned all in the same place. A portion of this coverage focused on the NFL and the amount of blame the league should assume. For example, "The settlement, which took effect in January, resolved thousands of lawsuits that accused the NFL of hiding what it knew about the risks" (de Groot, 2017). Others were to blame in coverage because of taking advantage of former players who needed help, including:

> Lawyers for former NFL players now eligible for payments under the league's $1 billion concussion settlement said Tuesday they've found evidence that unscrupulous third party providers are trying to take advantage of players with significant brain damage (de Groot, 2017).

As seen in this quote, new ways of taking advantage of players is emerging.

Comparison of frames. While the frames in coverage are not the same from year to year, there is enough similar data to address the third part of RQ1, while leaving room for analysis of this comparison for the discussion section. Across the board, there's a dichotomy between frames that (a) stress that the injuries are a part of the sport and focus on their on-the-field ramifications; and (b) focus on the safety of the players and how head injuries affect the athletes and the sport. Both are present in every section of the coverage, but the extent of each varies across time, and the focus on the latter does not overtake the former in prevalence until the final time period.

One year before the release of the film, "player status" was the most common frame (44.4%). Here we see that in the early part of the data, this form of an injury was treated no differently than other injuries. These frames exhibited that previously mentioned matter of fact tone, thus stressing the commonality of their occurrence and the ordinariness of their nature. The frame was part of five frames that reached at least 29% of the coverage: player status, impact on team (32.3%), culture of football (31.5%), downplaying head injuries (30.6%), and player safety (29%). In totality, the more prevalent frames show a pattern in coverage of focusing on the on the field ramifications of the injuries and downplaying the gravity of the issue as a whole. The least common four frames largely focus on the impact of head injuries in professional football. They are: future of football (14.5%), changing mindset (8.9%), blame for NFL (6.5%), and long-term effects (5.6%). It is important to note that these frames exist. It indicates there was a conversation taking place regarding the negative aspects of head injuries and football, however, that conversation could feel muted by the more prevalent frames within coverage.

In the data from 2013, "focus on player return" is the most common frame (67.3%). It is the only frame above 50% in the data, and indicates that not much has changed as a similar frame led the coverage in 2012. This is not too surprising, as this was prior to the film's release, although other concussion-related events like the NFL lawsuit and player suicides were happening before and during this section of coverage. Between 25% and 50% is a mix of pro- and anti-safety frames, some of which are new frames compared to the 2012 data. They are: taking head injuries seriously (48.2%), culture of football (32%), and not taking head injuries seriously (29.3%). This indicates a terrain of contestation within coverage. While "changing mindset" itself is not a frame within the coverage, it exists as an overall descriptor of the data. There is a battle for the overall frame of coverage within this time period, and coverage has

begun to take the issue more seriously both as a whole an in individual cases. The remaining frames are: impact on team (15%), assigning blame (13.6%); future of football (12.2%), defending the NFL (11.6%), and ambiguity of concussions (6.8%). The "defending the NFL" frame seen here likely stems from the concussion settlement that had just been announced prior to the coverage time period.

Turning to the 2014 data, the first after *League of Denial*, "player status" is again the most common frame (46.3%), although only holding a slight edge over "seriousness of head injuries" (43.9%). This indicates that there is not much change in media coverage frames from 2013 to 2014. There is a similar balance in caring about the issue yet assessing the injury's impact on the team. As such, the four following frames are: culture of football (39%), impact on team (26.8%), downplaying head injuries (22%), and gray area (22%). Compared to previous coverage, this is an increase in coverage discussing the gaps in knowledge about head injuries, which journalists will later contextualize by suggesting this might stem from a lack of access to medical professionals. The only frames below 10% were "changing mindset" (9.8%) and "NFL's role" (7.3%). The "changing mindset" frame also appeared in 2012 but not in 2013, while the NFL has previously existed in frames that either defended or blamed the league for its role in head injuries, whereas this frame looked at the league's role as a whole.

Finally, the 2017 data was the first to see a pro-safety measure as the most common frame, as "dangers of football" was in 69.6% of the coverage. This was also the only time period to have two frames appear in at least half of the coverage, as "game concerns" appeared in 52.2% of the coverage. There is still some resistance and downplaying of the head injury issue, but there's also less discussion about it being part of the game. Next, were four frames that appeared in at least 20% of the coverage: downplaying head injuries (43.5%), changing mindset

(34.8%), culture of football (30.4%), and not enough being done (21.7%). The final two frames were: player concerned with safety (17.4%) and assigning blame (8.7%). Overall, the data in this section focuses more on health and safety than any previous section of coverage. As mentioned earlier, these frames over these four time periods will be analyzed in detail in the discussion section.

Types of experts being cited in coverage

RQ2 examines the sources of information within the media coverage, asking what types of different experts are being cited in media articles about concussions and head injuries in the NFL before and after the release of *League of Denial*. The question uses the same four time periods (Sept. 5, 2012-Oct. 5, 2012, Sept. 3, 2013-Oct. 3, 2013, Sept. 4, 2014-Oct. 4, 2014, and Sept. 7, 2017-Oct. 7, 2017). The sources of information were counted and coded for each time period, and the results will be displayed in order of frequency.

One year before *League of Denial* release. Within this time period, the head coach of the football team of the injured player was cited most often within coverage (21.8%, n=27). The coach is serving as the mouthpiece of the team and that includes giving injury updates. The rest of the sources appeared in the following order of frequency: injured player (16.1%, n=20); medical professional (unaffiliated with team) (6.5%, n=8); teammate of injured player (4%, n=5); medical professional (affiliated with team) (3.2%, n=4); NFL league official (1.6%, n=2); a fan (1.6%, n=2); and another reporter (1.6%, n=2). It is rare that any medical professional is cited and even rarer that that doctor who is cited is affiliated with the team in anyway, thus illuminating a gap to acquire knowledge by the reporter. Sources appearing once in coverage were: a member of the front office, NFL media analyst, the reporter writing the story, an

unaffiliated player to the injury, the player who caused the injury, and the player who replaced the injured player.

Immediately before release of *League of Denial*. Like the first time period, the head coach of the football team of the injured player was cited most often within coverage (27.9%, n=41), and this time at even a greater rate in coverage that the first section. The rest of the sources appeared in the following order of frequency: injured player (19%, n=28); teammate of injured player (6.1%, n=9); medical professional (unaffiliated with team) (3.4%, n=5); former player (3.4%, n=5); an unaffiliated player to the injury (2.7%, n=4); NFL media analyst (2%; n=3); an opposing coach (2%, n=3); the reporter writing the story (1.4%; n=2); an assistant coach (1.4%; n=2); another reporter (1.4%; n=2); the NFLPA (1.4%; n=2); NFL commissioner Roger Goodell (1.4%; n=2); and a referee (1.4%; n=2). Compared to the first time period, there is a wider array of types of experts being included, such as referees, the NFLPA, and the commissioner. This suggests that since the issue is growing in steam, more people feel the need to comment on head injuries. Sources appearing once in coverage were: an author of a book, a team spokesperson, a member of the front office, an attorney general, a lawyer, a player who thought he was injured but was not, a high school coach, an athletic director, an NFL study, the son of a medical expert, and the player causing the hit that led to the injury. Despite many types of experts being included within coverage, there is not one single instance of a medical professional affiliated with a team being used as a source. That is especially telling given that this section the data was the largest of any time period.

One year after the release of *League of Denial*. Once again, within this time period the head coach of the football team of the injured player was cited most often within coverage (14.6%; n=6). The coach's inclusion has dropped in frequency, which is to be somewhat

expected as there is a substantial drop in the total number of articles in this section from the last time period (147 to 41), thus suggesting head injuries were less of a talking point during this time period. The rest of the sources appeared in the following order of frequency: medical professional (unaffiliated with team) (4.9%, n=2); injured player (4.9%, n=2); teammate of injured player (4.9%, n=2); assistant coach (4.9%, n=2); and the reporter writing the story (4.9%, n=2). Again, the drop off in the frequency of the injured player being quoted in these articles is likely a result of less specific cases of head injuries within coverage during this time period. Sources appearing once in coverage were: a lawyer, the NFL, another reporter, and a college professor.

Four years after the release of *League of Denial*. Within this final time period, both the head coach and medical personnel (unaffiliated team) were cited most often as sources (13%, n=3). This was the first time that the head coach was not the sole mostly cited source during a time period and can likely be attributed to a substantial amount of coverage during this time period that examined the head injury issue as a whole rather than specific cases. This can also help explain the relative small number of total types of sources cited on head injuries during this time period. The rest of the sources appeared in the following order of frequency: injured player (8.7%, n=2) and an unaffiliated player to the injury (8.7%, n=2). Sources appearing once in coverage were: medical professional (affiliated with team), president Donald Trump, an NFL owner, a lawyer, a former player, and a healthcare executive.

How players and coaches discussed head injuries

The third research question is the last that addresses the data collected from media coverage during the four time periods (Sept. 5, 2012-Oct. 5, 2012, Sept. 3, 2013-Oct. 3, 2013, Sept. 4, 2014-Oct. 4, 2014, and Sept. 7, 2017-Oct. 7, 2017). The question asks, what differences

exist within the quotes chosen in media coverage in how NFL players and coaches talk about concussions before and after the release of *League of Denial*? The frames of those quotes are displayed below for each time period and are ordered by the frequency of articles that include each frame.

One year before *League of Denial* release. Data analysis of the quotes in the media coverage within this time period led to five emergent frames. Multiple frames could be present within each quote. The frames were: (a) culture of football (14.5% of 124 articles); (b) downplaying head injuries (11.2%); (c) player safety (9.7%); (d) impact on team (8.1%); and (e) player status (5.7%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses. Within this time period, there were two injuries that generated significant discussion—one to New York Jets player Darrelle Revis and another to Oakland Raiders player Darius Heyward-Bey.

Culture of football (n=18). Most often within this section of coverage, players and coaches in the NFL were quoted discussing the culture of football and how it relates to head injuries. While the analysis for RQ1 showed that "culture of football" was a frame that existed in all sections of the coverage, it was never the most prevalent, as it is here for the quotes by coaching and players during the first time period. For instance, New York Jets defensive coordinator Mike Pettine was quoted talking about the "next man up" culture of playing in the NFL, including, "'But at the same time, were not going to panic, either. We have capable backups.-. . . We're hopeful that he'll go. If he doesn't, we'll be prepared'" (Mehta, 2012b). Elsewhere, Oakland Raiders head coach Dennis Allen talked about hard hits being a part of the game, saying:

> "It's the game of football -- I don't think people are trying to going out there and hurt people," Allen said. "The safety was playing the game fast and physical. It's a tough game to play when you're making split-second decisions on how you play the game. It's the unfortunate things that happen in this game but we move on from it" (McDonald, 2012e).

Raiders receiver Darius Heyward-Bey had a similar sentiment, saying, "'That's just football,' Heyward-Bey said. 'I signed up to put on pads and go out there. That's what happens out there. People get hit, people get hurt. It happens'" (Corkran, 2012).

Downplaying head injuries (n=14). Within this frame, coaches and players were quoted attempting to minimize the seriousness of head injuries. Like the most prevalent frame of "culture of football," this is another instance in which coaches and players seemingly minimize the importance of taking head injuries seriously. For instance, New York Jets player Aaron Maybin did not show much concern about teammate and concussion victim Darrelle Revis, saying "Maybin admitted that Revis 'looks like himself' and didn't notice any ill-effects from the head injury when they spoke on Monday" (Mehta, 2012a). Jets teammate Antonio Cromartie showed a similar lack of concern about Revis' injury, saying, "'And he'll be back, we're not worried about him, he'll be back for next week'" (Ackert, 2012). In another instance, Oakland Raiders coach Dennis Allen lessened the severity of a concussion by saying it could have been worse. For example, "'The concussion is obviously the bigger issue than anything else right now,' Allen said. 'We were all pleased to see that it wasn't anything severe as far as neck injury or anything like that'" (Associated Press, 2012).

Player safety (n=12). Coaches and players within this frame discussed head injuries with a greater focus on keeping the player healthy. This is the lone frame in this section that is pro-safety and the health of the players, unlike the frames examined in RQ1 for this time period, as five different frames could be considered pro-safety. Included was New York Jets player Darrelle Revis saying that he will trust the doctor to make the call. For example, "'It's not my

call. It's the doctors' call,' Revis said. 'Whatever they say goes,'" (Mehta, 2012b). In another example, New York Jets head coach Rex Ryan expressed caution about Revis saying, "'If he's not 100%, he won't play,'" (Jenkins, 2012). Other instances of this frame were when players recognized the seriousness of such an injury. For instance, Pittsburgh Steelers player Ryan Mundy said after causing a concussion for Oakland Raiders player Darius Heyward-Bey, "'I just said a prayer for him,' Mundy said. 'I hope he was OK'" (McDonald, 2012d).

Impact on team (n=10). In another pattern, quotes within the coverage were more concerned with how the injury impacted the team than anything else. This was seen in discussion of the specific cases of head injuries rather than coverage looking at the overall issue of head injuries within the sport. For instance, New York Jets linebacker Aaron Maybin focused on the negative impact to the team stemming from a concussion for his teammate Darrelle Revis, saying, "'You can't lose a player like Darrelle and say that you're not going to see a dropoff in production'" (Mehta, 2012a). In another instance, New York Jets head coach Rex Ryan said the team would have to change its strategy because of the Revis injury, saying, "'He's just that kind of guy. So, sometimes you will have different type of game-planning (if he's not playing)'" (Mehta, 2012c). In other cases, a head injury was mentioned as inspiring the team to play better. For instance, Oakland Raiders player Michael Huff said, "'They take one of your brothers out, you got to retaliate, you got to get 'em back -- obviously, in a legal way, nothing like that. But I mean, you want to go out and get the win for him'" (Barber, 2012).

Player status (n=7). While RQ1 identified "player status" as the most prevalent frame of coverage within this time period, it was the least prevalent emergent theme from quotes by coaches and players. This is likely because a player's status update is so simply put that the reporter did not deem a quote to be necessary and could paraphrase the information instead. In

some instances, a pattern emerged of coaches and players talking about a player's head injury only in terms of when he would return to the field. This included a concussed player saying his focus is to play again, including New York Jets player Darelle Revis in the following example, "'I'm prepared just as any other week,' Revis said. 'I'm studying. I'm doing what I need to do. When my number's called to play, then I'll be out there to do that'" (Mehta, 2012b). Another concussed player, Oakland Raider Darius Heyward-Bey, expressed a similar sentiment, saying, "'Always; I want to play football,' Heyward-Bey said, when asked if he is itching to play again. 'This is what I do for a living. So, definitely, I'm very eager to get back'" (Corkran, 2012).

Immediately before release of *League of Denial*. Data analysis of the quotes in the media coverage within this time period led to seven emergent frames, and multiples frames could exist within the same quote. These frames were: (a) taking head injuries seriously (19% of 147 articles); (b) not taking head injuries seriously (14.3%); (c) culture of football (8.8%); (d) impact on team (7.4%); (e) focus on player return (5.4%); (f) blaming oneself (5.4%); and (g) defending the NFL (4.8%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses. A head injury to Oakland Raiders quarterback Terrelle Pryor was one case that received a substantial amount of coverage within this section.

Taking head injuries seriously (n=28). The most prevalent frame within this section of the coverage were quotes from players and coaches that portrayed concussions and head injuries as a serious issue. This is not too surprising, as analysis in RQ1 indicated that this same frame was the second most prevalent frame of all coverage within this time period. In some instances, the team was described as putting a player's safety above anything else. After suffering a concussion, San Francisco 49ers player Eric Reid said, "'I had no headache, felt perfectly normal

and wanted to go back and play, but they hid my helmet somewhere,'" (Inman, 2013b). Similarly, Oakland Raiders head coach Dennis Allen noted being very attentive to a concussed player's symptom, saying, "'Sensitivity to light is obviously a symptom, and when you have that symptom we can't put him at risk,'" (McDonald, 2013e). Other coaches expressed their feelings of how serious a head injury is when it happens in a game, including Denver Broncos head coach John Fox. For example, "'He's been in all of our prayers,' Broncos coach John Fox said. 'He was the minute that happened. It's the scary part of football. It's a combative game. I know he feels fortunate, and we feel fortunate, that everything has worked out fine'" (Frei, 2013).

Not taking head injuries seriously (n=21). Here we see the dichotomy of views on head injuries on full display as the two most prevalent frames among quotes during this time period are "taking head injuries seriously" and "not taking head injuries seriously." Although the most prevalent frame included quotes discussing head injuries in a serious manner, the second most prevalent frame did the opposite. This included coaches not willing to adjust their style of play to promote a safer atmosphere. For instance, Philadelphia Eagles head coach Chip Kelly said of his quarterback Michael Vick possibly running a safer way, "'I'm also realistic in terms of I don't think at 33, we're going to get him to hook slide. We can talk about it; wish for it. I don't see that happening'" (Patton, 2013a). In other instances, a player downplayed the seriousness of his concussion. This included Oakland Raiders quarterback Terelle Pryor, who said, "'I think it was very mild, because I'm doing very well,' Pryor said. 'They said I'm making good steps toward being able to play'" (McDonald, 2013b). In other cases, a player discussed how it was more manly to hit a player's head, even if it wasn't as safe. This included San Francisco 49ers linebacker Patrick Willis, who said, "'Hit like a man, hit me up high,' Willis said. 'You don't see a ram cutting another ram's legs. They hit head-to-head'" (Inman, 2013a).

Culture of football (n=13). In other quotes, a pattern emerged of players and coaches discussing how hard hits and head injuries were just a part of football. This was used to defend why players hit and tackled other players a certain way. RQ1 indicated that this was also the third most prevalent frame among all coverage during this time period. For example, Tampa Bay Buccaneers player Dashon Goldson said of being suspended for a helmet-to-helmet hit, "'We're not worried about those penalties; we're really not. That's just football. We learn how to tackle when we're young, and (we've) been doing this for a long time'" (Brady & Mihoces, 2013). A common pattern of concussion quotes discussed the injury in terms of how players are easily replaced in football and a healthy player is always ready to take an injured player's spot. For example, Oakland Raiders coach Dennis Allen said of replacing an injured Terrelle Pryor with a healthy Matt Flynn, "'I thought Flynn had a good practice today,' Allen said. 'I would expect nothing less than that. He's a pro. He'll be ready to go if his number is called'" (McDonald, 2013b).

Impact on team (n=11). Not all head injury quotes focused on the injured player's health. A pattern in coverage showed some focused on how that injury impacted the team. This was seen almost exclusively in coverage on specific cases of head injuries and was not always a negative. An injured player could sometimes be a benefit to strategy. For example, Washington Redskins head coach Mike Shanahan implied his team was at a disadvantage because their opponent had a quarterback in concussion protocol, saying, "'You have to get ready to play both of them,' Shanahan told Bay Area reporters Wednesday by conference call. 'That's their game plan'" (McDonald, 2013d). In other instances, a player's return was discussed as benefiting the team. For instance, New York Giants player Antrel Rolle said of a return by concussed player Prince Amukamara:

> "It's extremely valuable," Antrel Rolle said of Amukamara being cleared. "You want to have all your guys, all your key weapons. We all know that Prince is definitely an asset to this defense. He's come along great so far and he's been playing outstanding for us. We're looking forward to him continuing that" (Tasch, 2013).

Thus, once a player was healthy enough to return, the injury became an afterthought.

Focus on player return (n=8). Another pattern was that quotes by players and coaches served more as updates of a concussed player's health and when that player will return to the field. Head coaches commonly gave these sort of updates, including San Francisco 49ers coach Jim Harbaugh, who said, "'The good news is, he's not symptomatic today,' Harbaugh said of Reid" (Corkran, 2013a). As these were updates, the content of these quotes was relatively simple, which could explain why they were not more frequently provided. RQ1 indicated this frame was most common for all types of coverage during this time period.

Blaming oneself (n=8). While RQ1 indicated that blame was assigned to many different sources during this time period, quotes assigning blame were instances in which the player blamed himself for the injury. For instance, Denver Broncos player Derek Wolfe said after sustaining a head injury, "'I put myself in a bad situation. I shouldn't have been on the ground, anyway, and I got hit in the back of the head and crunched my spine a little bit. It was just a concussion of the spinal cord. No aftereffects. No anything'" (Frei, 2013).

Defending the NFL (n=7). Another pattern identified in the quotes of players and coaches was defending the NFL for the way it approaches concussions and head injuries. This was also seen as an overall theme during this time period in the analysis performed for RQ1. This was often seen in quotes stating that the NFL has been proactive in regards to making the game safer. For example, a quote by Washington Redskins head coach Mike Shanahan falls in this area, as he said, "'But I think what they're going to try to do is emphasize even coming in on that angle from now on will not be allowed in the National Football League, so that will be a new

rule that will be implemented as time goes on'" (Boyer, 2013c). There were no quotes in this time period that blamed the NFL for anything related to head injuries. Whether that is out of fear or true belief is uncertain.

One year after the release of *League of Denial*. Data analysis of the quotes in the media coverage within this time period, the first following the release of *League of Denial*, led to just one emergent frame: impact on team (7.3% of 41 articles). This frame is discussed below with examples from the data. The publication source of each comment is in parentheses.

Impact on team (n=3). The only emerging pattern within quotes of players and coaches during this time period was a discussion on how a player's injury impacted the team rather than addressing that player's health. While it is somewhat surprising only one frame emerged, the analysis in RQ1 indicated a lack of any major shift from the 2013 to 2014 data in patterns of head injury coverage, suggesting a stability to the conversation. Sometimes discussion on impact in team was in relation strategy. For example, Denver Broncos assistant coach Adam Gase made comments to this end, saying, "'I know we can do some different things with him out there compared to what we can do with two tight end packages, but we're able to move the ball whether he's on the field or not. I think he's done a good job, and we'll get another test this week'" (Moss, 2014b). In other instances, a player's return from a head injury was hailed as a positive for the team. Denver Broncos player Jacob Tamme said of a return by teammate Wes Welker from a concussion, "'I'm happy to have Wes back. He makes our team better. Whether it makes my role smaller I don't know'" (Moss, 2014a). In another example, Denver Broncos quarterback Peyton Manning expressed concern over how teammate Virgil Green's concussion impacted the team's offense, saying:

> "Virgil's injury I thought was significant," said Broncos quarterback Peyton Manning. "We had a good drive with him in there and with him out, it limited some of the things we wanted to do formationally, and I thought we became a little one dimensional because of his injury and because of the score. That's not what you want to do against these guys. You want to be balanced" (Klis & Renck, 2014).

As is expected, conversation on "impact on team" was largely case-driven.

Four years after the release of *League of Denial*. Data analysis of the quotes in the media coverage within the final time period led to two emergent frames and quotes could include multiple frames. These frames were: (a) culture of football (13% of 23 articles) and (b) player concerned with safety (9.5%). Each of these frames is discussed below with examples from the data. The publication source of each comment is in parentheses. A specific case included in many of these quotes is an interview by New England Patriots quarterback Tom Brady in which he expressed his views on head injuries.

Culture of football (n=3). Within coverage of this time period, a pattern emerged of head injuries and concussions being discussed by players and coaches in relation to how they fit into the culture of the sport. This is not surprising as RQ1's analysis indicated that "culture of football" was the only frame present in every section of the data, suggesting that this culture is not going away anytime soon. In one instance, New York Jets quarterback Josh McCown discussed a mindset that some players have where health risks are not a concern. He said:

> "Ultimately, the guys that play this game, and when you're wired to play this game, I think there's something that draws you to it. Who knows on a case-by-case basis of guys whether or not they'd make that decision to stop playing. But any time we can get more information about those things, I think it's helpful for us" (Popper, 2017).

In another example, New England Patriots quarterback Tom Brady had comments fall within this frame by discussing head injuries as part of the game, saying, "'I'm not oblivious to them,' Brady

told ‘CBS Sunday Morning.’ ‘I mean, I understand the risks that, you know, come with the physical nature of our game’” (“NFL briefs”, 2017).

Player concerned with safety (n=2). The other pattern within quotes during this time period was players putting a focus on their safety. The existence of this pattern indicates that while a culture exists of playing through pain and accepting violence, players are voicing their concerns about health issues. Included in here was New England Patriots quarterback Tom Brady, who saw an importance in making sure his body stays healthy, saying, “‘And I'm going to do everything I can to take care of my body in advance of the, you know, of the hits that I'm going to take on Sunday’” (“NFL briefs”, 2017). Another example of this frame came from New York Jets player Ben Ijalana, who did not want football to affect his later years, saying:

> “So if they have (the CTE test), I'd be interested just to see what's going on because this time in my life, my career, hopefully in the span of how long I plan to live, it's such a small time. You don't want to do anything now that just greatly affects the other years of your life” (Popper, 2017).

A CTE test could give players the ability to know how much damage has already been done to their brain.

Phase 2 – Journalist Interviews

Journalist assessment of head injury coverage

Starting with RQ4, the interviews with eight National Football League beat writers were used as the cite for data analysis. RQ4 asked, to what do journalists attribute any changes in media coverage regarding concussions and head injuries in the NFL? Using a framing analysis, six patterns were identified from the answers given by the journalists during data collection that address RQ4. Those frames were: (a) personal connection to injured athlete; (b) player suicide impacting reporter; (c) wave of information about head injuries; (d) lack of information from team; (e) fantasy football impacts coverage; and (f) treating concussions differently. Each of

those frames will be presented in more detail below. To preserve the confidentiality of the eight journalists, rather than use their name, each journalist will be assigned a number that will be in parentheticals when a quote from that journalist is mentioned in the sections below.

Personal connection to injured athlete. From the responses by this sample of journalists, one of the main influencers indicated in changes of coverage about head injuries in the NFL was a personal connection to players who had sustained a head injury or a long-term injury as a result of playing football. Reporters mentioned these instances as a reason for why they started taking head injuries seriously in their coverage. For instance,

> I had the chance to talk to a lot of former Packers from the glory years of the 60s. I did a lot of stories on flashbacks and their recollections of the glory years. In that process, I got to hear some of their stories about how they were doing physically, which in a lot of cases wasn't that good. I think that probably helped me realize, wow, this is really a significant issue (6).

That wasn't unique to former players, as current players who were hurt caused a similar experience among reporters, including, "It's listening to their own personal battles with head injuries, and their claims what the sport or playing the sport and suffering head injuries has done to them" (8). Others recalled times of witnessing a player suffer a head injury on the field, including:

> There will be a few times where you see a guy get knocked out cold…Stevan Ridley on a carry on the outside just got blasted, and he was laying on the ground. His arm was just kind of hanging. He wasn't moving. It was just very, very scary to see someone in that position. Everyone who watches football sees some of those. Those have stuck with me (1).

Not all of these experiences came from covering NFL players. One reporter mentioned their experience as a boxing reporter influenced their coverage of head injuries, saying, "I think just from covering that sport and understanding the long-term ramifications of the head injury made

me aware. When I got to cover the NFL, everyone was tripping out on it, and I was like, 'No, this is how it is'" (7).

Player suicide impacting reporter. Several notable former NFL players who have killed themselves have later tested positive for CTE. This connection impacted the reporters and influenced how they covered the concussion issue. For instance, one reporter recalls hearing the news of former NFL player Junior Seau's suicide, saying, "It was Seau's death that all of a sudden shined a huge mammoth spotlight on the issue" (3). Another reporter shared that sentiment, saying, "I think the Junior Seau case was the biggest one because he obviously committed suicide. And we were like, 'What's going on here?'" (7). Another former player, Dave Duerson, committed suicide before Seau, and that moment stuck with another reporter. For instance, "Right around that time [Dave Duerson death], I don't remember what that year was, but I just remember thinking, 'Wow'" (6).

Wave of information about head injuries. Reporters indicated that media coverage about head injuries was influenced by a large amount of information regarding the effects of football that came out all around the same time, to their recollection. This included *League of Denial*, medical research, stories about former player health and suicide, and the NFL's concussion settlement. Reporters said eventually the information could not be ignored, including, "I think as time went on, the story just got bigger and bigger, and people said, 'Ok, this is something that is seriously going to be part of the discussion'" (5); and, "There was the documentary. Everything with Junior Seau. You started to see more stories with more detail about how head trauma can affect some one's life down the road when they are in their 50s and 60s. Sometimes even much younger than that" (1). And reporters indicated that the amount of information elevated the story beyond the sports section, such as, "You see the concussion

movie. I think there was a murder/suicide in the parking lot of a Kansas City Chiefs player. I think there were a whole series of events that happened back-to-back-to-back that really this became a national story" (3).

Lack of information from team. Another pattern within responses was that coverage of concussions and heads injuries was influenced by the lack of discussion coming from the team regarding the injuries. While teams used to be more open about medical information, reporters say that teams reveal less now than ever before, including, "I would say just in general, the NFL has gone a little more secretive over the years. I think things used to be a little more open a decade ago" (4). Reporters described a process through which all injury information comes from either the head coach or a team spokesperson. Trainers and medical personnel are rarely available, which reporters say influences how head injuries are covered, including, "You had no access to medical personnel. The team made them strictly off limits. So the only information you were getting was from the coach. You could talk to a player obviously in the locker room, but I think the team often instructed them not to divulge injury information" (6). Having this access is something reporters felt would allow them to do a better job. For example, "If you had people who could talk to you from the team from the medical side – doctor or trainer – that would help getting more education and not just on concussions, on all injuries" (2).

Fantasy football impacts coverage. Reporters also indicated that coverage was influenced by the increasing fan interest in fantasy football and the desire for fans to get injury updates on their team's players. They believed that this interest takes the injury focus, including concussions, to a national level, including:

> A large part of what drives the sports reporting today is that football is no longer necessarily a locally consumed news because of fantasy football. Before, 15-20 years ago, you were focused on your team specifically with injuries. Now injuries are really under a microscope as people are playing their fantasy football teams and looking at everybody's reports (3).

When fans interact with reporters, they said it is largely to get injury news. For example, "I get a ton of questions like that from readers, people on Twitter whatever that just say, 'Is my guy playing this week? Who's going to back him up' That's a huge concern" (4).

Treating concussions differently. Finally, reporters indicated the NFL organizations handled concussions differently than all other types of injuries and that led to a difference in how they were covered in the media. Reporters described that teams had more patience with head injuries than they did other types of injuries, such as, "I think the mentality over the years has been to gut it out and play. He has a sore knee or what have you, but he still got out there and played…But I think the public and everybody is more educated that nobody questions how long a guy is out with a concussion" (2). Additionally, players with a concussion enter a protocol that other injuries do not have, and that influences how those injuries are covered. For example, "Usually when a player is injured, he is not allowed to speak with us, especially a player who has a concussion… some coaches will give you an update and say, 'He's in the protocol. He's feeling better.' Or sometimes they won't say anything" (7).

Changes in attitudes surrounding NFL and head injuries

For the reporter interviews, RQ5 asked, what do journalists attribute any changes to in player, coach, and organization attitude regarding concussions and head injuries in the NFL? Using a framing analysis, three frames address RQ5. Those frames were: (a) following NFL rules about head injuries; (b) concern for safety of the player; and (c) players push back to safety concerns. Each of those frames will be presented in more detail below. Continuing from the

previous section, to preserve the confidentiality of the eight journalists, rather than use their name, each journalist will be assigned a number that will be in parentheticals when a quote from that journalist is mentioned in the sections below.

Following NFL rules about head injuries. The sample of reporters felt that the attitudes that NFL teams had towards concussions was greatly influenced by the focus the league was putting on the issue. Partly this was because the NFL sets a protocol for how head injuries should be handled, and the teams are required to follow this protocol. Reporters believed this limited what teams said about injuries, including,

> They are worried about under the NFL concussion policy and the rule changes, what they're allowed to say. They don't want to get a letter from the NFL office saying, I saw you quotes talking about so and so's concussion. 'According to the concussion protocol, you are supposed to say…' They want that. It's better for them to just not say much (2).

Some reporters felt this arrangement promoted a habit of secrecy around head injuries, saying, "I do think that there are policies that are set up in the league that allow for reasonable deniability. And I guess that creates a culture where cover-ups can persist to protect the interests of the player or to protect the interests of the league" (3).

Concern for safety of the player. Another pattern that emerged from reporter interviews was that NFL organizations talk about head injuries differently now because there is more concern for the well-being of the player. For instance, "I think teams have definitely become more cautious about handling players who suffer brain injuries. In a good way, they're doing more to keep them off the field not rush them back" (4). This is not only seen in teams, but the league as a whole, as reporters said, "It was fascinating to see the amount of man power they're putting into this and the level of the equipment that they're putting into this. It really is sophisticated. They really are doing a good job with that" (5). Still, some reporters felt that there were some concerns viewed as a higher priority than player safety, including winning, and that

influenced discussion around head injuries. For example, “I think there are certainly coaches that do truly care about their players and their health, but on the other hand, these are the same people, who essentially their jobs are on the line if they don’t put out wins” (6).

Players push back to safety concerns. While there might have been some initial changes in how head injuries were talked about within the NFL, reporters indicated that in many cases the conversation eventually reverted back to old rhetoric about the issue. Regardless of the medical research, reporters felt that some players would always view impact and head trauma as part of the game, including, “And you still have some old school ways of thinking. Now there are new rules that say they don’t want the players leading with their heads, but players are leading with their heads in some cases because it’s football” (7); and, “The players are usually willing to go out there because you still have this warrior mentality where, suck it up, and you play hurt, and you get out there and do it for you team. So that mentality I think permeates football” (6). And because of that, reporters indicated instances in which there was a push back by players on the safety measures, such as, “He was kind of like, ‘You know, well, those are the rules. You’re looking at it for our health. There’s nothing you can do. But obviously I was frustrated and I showed it’” (2). In addition to the view that it is part of the game, reporters felt there is also a belief from the player that playing the sport is a choice and you get paid to do so. For example:

> I have to scratch my head sometimes with some of these athletes. It’s like, “God you’ve had so many concussions, why are you still continuing?” But the answer is all of the money that they’re still making. The millions of dollars is more worth it than their health. The choices are interesting (8).

The player has created a value equation examining the cost and benefit of playing football, deciding that it is “worth it” to play sport. In this case, the reporter disagrees with that decision, substituting in their own value equation to make that decision.

Influence of *League of Denial*

The final research question asked, how, if at all, do the journalists believe that their reporting of concussions and head injuries in the NFL was influenced by *League of Denial*? A frame analysis was performed and below the data is separated into two sections of frames: (a) the documentary had an impact, and (b) the documentary had no impact. Each of those frames will be presented in more detail below. Continuing from the previous section, to preserve the confidentiality of the eight journalists, rather than use their name, each journalist will be assigned a number that will be in parentheticals when a quote from that journalist is mentioned in the sections below.

The documentary had an impact. For some journalists, the documentary did impact their reporting of the NFL and their level of focus on head injuries. For instance, one reporter describes the documentary really having an effect on them, saying, "I thought it was really eye-opening. Maybe because I'm a journalist. I don't know. I thought it was very significant and eye-opening at the time" (8). Another expressed a similar sentiment, saying, "That documentary did so much for the issue to be taken more seriously in football" (1). Others felt that while they were not personally affected, they believe other reporters may have been. For example, "I think maybe a little bit with the way reporters cover the sport. Maybe there were some people that didn't have a personal experience with it that saw the documentary and maybe realized the severity of concussions a little bit more" (4). Some reporters believed it had an impact, not alone, but because of its inclusion in the large amount of information coming out around that time. For example, "It was a trickle effect. It wasn't any one thing that people said, 'Oh, ok, we gotta do something here.' The *League of Denial* was one. Will Smith's movie. Junior Seau. Dave Duerson. You said, 'What the hell?'" (7).

The documentary had no impact. Other journalists believed *League of Denial* had very little impact on how head injuries were covered in the media. This was the more prevalent of the two frames, as every journalist – one way or another – said that documentary did not have an impact, whether that was explicitly saying that or mentioning other sources of information that did cause an impact. For some, this was because their awareness was there before the documentary was released, saying, "I was at the very beginning of it, covering it so I don't think those things changed my life because much of what was in there, I some way or another I kind of knew. Not to the depth obviously that they did, but I mean, this was stuff I had been writing about" (5). Another reporter was unable to notice any discernable difference in league-wide media coverage after the documentary, saying, "I don't know how many people saw that. I don't know if the tone of reporting changed" (4). A reporter also indicated that while there may have been an initial impact, it did not last very long, saying, "I don't want to say it was ignored. It's like the news cycle hits and then for a while it's a hot topic, and then people sort of get back into the routine because everybody loves their football. It almost gets put to the backburner" (6). Finally, while journalists watched the documentary, some indicated that its impact paled in comparison to the impact of knowing players who have sustained head injuries. For example, "I think I'm more influenced by the personal level. I think when you get close to it, you really see the players as not being superhuman but just human beings and they come in all size of colors and shapes and personalities" (3).

Additional data

Within the analysis of the reporter interviews, there were some patterns that did not address the research questions but still are important to contextualizing the data. Those patterns will be discussed below. Continuing from the previous section, to preserve the confidentiality of

the eight journalists, rather than use their name, each journalist will be assigned a number that will be in parentheticals when a quote from that journalist is mentioned in the sections below.

Reader interest vs. journalist responsibility. A common pattern among journalist commentary was that readers do not care about the issue of head injuries, which led to a debate of whether the journalist should give the fans what they want or write what the journalist felt was important. Reporters expressed that lack of reader interest in several ways, such as, "I remember when the first concussion settlement came down, and I remember scrambling in my hotel room to write a story and filing it, and it just got crickets. Nobody wanted to read about it. And then I went and covered a Patriots game and everyone wanted to read about that" (5). Others felt it was more of a case-by-case basis, saying, "It depends on the reader. I think people do care about the issue, but I think people who want to read about football don't necessarily want to read about that issue" (8). Reporters indicated this leads to an internal struggle for the reporter between writing for the reader and writing what is important. For example:

> That's the daily battle we have in this business. I don't know. I think at some level you have to say, 'What is important? And what is something that readers need to know about?' So I don't necessarily know what the equation is on that. I don't know. I'm thinking back through all the instances where the media has gone straight for the clicks instead of what's responsible (5).

Most journalists, though, felt that at the end of the day, reporting what is important wins out, saying, "You've got to give the people what they want, but you also have to educate them on what's going on in the sport. There have been plenty of times that I wrote a story that I know the readers didn't care about, but you had to write it because it was the news" (7).

A lack of reporter interest. Reporters indicated that an important variable for how much media coverage head injuries received is the level of interest the reporter has in the issue. The interviewees felt that some reporters just do not want to cover the issue. For instance, "If you're

talking to 30 NFL beat writers who just cover them, realistically, not many of them are going to be very interested in covering head trauma extensively. They didn't really get into it to do that" (1). Others felt that because the issue is so complicated, the reporter must be willing to go the extra mile to cover it. For example, "I think a lot of people kind of reach for what the quick, easy answer is and don't want to investigate in this because it's complicated. It's hard stuff. It's medical stuff" (5). The journalists also indicated that the coverage that is written can get repetitive and more angles need to be taken, saying, "A lot of the stories that are written are about people who have passed away, retelling the horror of their lives once they have died. That's good to make people aware… But they are a little repetitive after a while" (1). Finally, reporters also believed that more could be done to hold teams accountable, saying,

> I think we as reporters need to hold teams more accountable when a guy gets hurt. When they say he's got a head injury or he has a mild concussion, there's no such thing as a mild concussion. It's a concussion…So I think we as reporters could be a little bit harder in terms of holding the league and teams to how they classify concussions (7).

Instead, interviewees believed that reporters were largely content accepting information from the teams and not questioning anything.

A lack of resources for the reporter. Reporters also indicated that one of the major factors in the amount and depth of media coverage of head injuries in the NFL is that many media outlets do not have the resources or staffing to supply such coverage. For instance, "There are not many newspapers now that have huge staffs. You can't exactly dedicate lots of time to this. Only a few places really have that luxury" (5); and, "Seeing the gutting of newspaper staffs, I think it makes it much more difficult to cover an issue like this adequately or appropriately because you're so thin that basically your reporters are having to cover the day to day workings of the team" (6). Reporters suggested that because of the financial problems and small staffs of media outlets, all NFL reporting for a publication can fall on one person, and they might not

have time to cover head injuries. For example, “It’s hard because you have to cover so many different things in the NFL, whether it’s stuff on the field, salary cap, free agency, the draft, coaching changes – it’s all encompassing. Concussions are also in there and sometimes concussions get lost in the shuffle” (7). To alleviate this, some reporters suggested having one person devoted to covering stories like head injuries, saying, “You want to have an individual covering the head trauma issue that actually would be engaged in it and wants to do it. Having an investigative sports reporter, that would be something they could devote a lot of their time to” (1).

Focus on the future. Journalists often discussed the media coverage of head injuries in sports within the context of football’s future. Particularly, reporters mentioned the importance they felt in educating the public on head injuries so parents could make decisions about their kids playing football. For instance, “My concern is that the education needs to go on and make sure that happens at a greater percentage of the time” (3). Others questioned whether football had a future at all, saying, “And I realize one of the solutions is, should we continue with football? It’s brutal on players and seeing all these post-career injuries and horrible effects” (6).

Chapter 5

Discussion

Within this study, media coverage of head injuries in the NFL is analyzed during four, one-month time periods between 2012 and 2017. In addition to seeing how coverage changed during this time, the research aimed to explore any influence that the documentary *League of Denial* may have had over coverage. To help understand this, interviews with NFL beat writers were conducted to contextualize the findings from the media frame analysis. The findings of both phases of research indicated that there was a shift in media coverage that began to emphasize player safety more towards the latter part of the data sample. However, it is still unclear what, if any, influence the documentary had on this shift, as journalists cited the documentary as one of many factors that influenced media coverage and NFL culture around head injuries during this time period. In the following sections, I will discuss in greater detail what happened in the coverage, why it happened, and the impact of the documentary. I will also discuss the research's implications and limitations and how it directs future inquiry on this subject matter.

A shift in coverage?

The data analysis of the media coverage surrounding head injuries in the NFL suggested a dichotomy between two different trajectories of coverage. On one hand, coverage left the health aspects of head injuries in the peripheral. These articles largely covered head injuries from the perspective of their impact on the team and implied that they were just part of the culture of the violent sport of football. On the other end of the spectrum were articles that focused on safety and expressed a growing concern about how concussions affect players and sport. This dichotomy existed in all four time periods that were analyzed from 2012 to 2017.

In the first section of the data (Sept. 5, 2012-Oct. 5, 2012), there is more coverage surrounding the on-field and strategical impact of head injuries, while downplaying the larger trends surrounding the issue and the sport. There is some discussion about concussions and how serious of an issue they are, but that is dwarfed by the focus on if the player will be able to play and how it impacts the team. To a lesser extent, there is talk about football's future, blame for the NFL, and long-term effects.

The second time frame of media coverage (Sept. 3, 2013-Oct. 3, 2013) is shortly before the release of League of Denial. The coverage during this time period takes the issue of head injuries more seriously than the 2012 data. There is still plenty of focus on the impact that the injury has on the game and team, but now there is more discussion on player safety and how serious the issue is. There is less coverage about a changing mindset and more defense of how the NFL handled the issue, likely stemming from the settlement, which was shortly before this time period.

The third time frame of media coverage (Sept. 4, 2014-Oct. 4, 2014) is approximately one year after the release of *League of Denial*. However, there is not much difference between the patterns of coverage from 2013 to 2014. There is a similar balance between caring about the issue and a focus on a head injury's impact on team. Meanwhile, there is an increasing conversation about the gray area of concussions and another new frame – evaluation of the NFL's role as a whole surrounding the issue. The latter is different than the "blame" or "defend" the NFL frames that appeared earlier.

The final time frame (Sept. 7, 2017-Oct. 7, 2017) marks the first time that there is more focus within the coverage on the dangers of football and seriousness of problem than playing status and impact on team. There is still some resistance and downplaying of the issue, but

there's also less discussion about it being part of the game. In all themes during the final time period, there is more focus on health and safety.

While the first phase of the research was able to identify what the coverage looked like, the second phase explained why it looked that way by adding some contextual factors. Reporters indicated that it was hard to single out any one factor or event that led to a shift in coverage towards a greater focus on health and safety about head injuries in the NFL. Instead, there was an 18-month period between May 2012 and October 2013 during which an extensive amount of information and content came out regarding head injuries in the NFL and their dangers. During this time, future NFL Hall of Fame linebacker Junior Seau committed suicide, the NFL reached a settlement with former players regarding the physical effects of playing football, and *League of Denial* was released, highlighting the connection between playing football and CTE. Reporters indicated that this made the issue of head injuries unavoidable, especially now that the issue had moved from the sports section to the front page of many newspapers across the country. And for some reporters, it was the first time they began taking this issue seriously in their own reporting. It is not surprising that from that point forward, more news frames in the coverage would focus on safety, as frames can be influenced by the value system of the journalist or of society (Boykoff, 2006). Now that society was more aware of head injuries in football and seemingly cared about the issue, it is not surprising that frames began to shift the way they did.

Lastly, it is important to note the change in sample size across time periods. The sample size shifts see a decline from 2013 (n=147) to 2014 (n=41) to 2017 (n=23). While there are some contextual factors related to the state of the journalism industry that likely played a role in this, there are also some trends within the coverage that help explain that shift in sample frames and sample size. In the first two time periods, there are specific cases of concussions that are

especially relevant to local coverage, most notably New York Jets player Darrelle Revis and Oakland Raiders player Terrelle Pryor. These two were among the "stars" on their team, and because of this, their concussion recovery was a significant focal point of the coverage. In the latter two time periods, a specific concussions case of that magnitude is lacking. Instead, most of the coverage is issue-based, speaking more broadly on head injuries in the NFL. This type of coverage required less follow-up than the case-based coverage and likely contributed to the smaller sample size. Thus, the drop in sample size is not a limitation but instead informs us about the patterns and contextual factors within the coverage.

Safety first within coverage. Throughout each data section is that previously referenced dichotomy between focusing more on game concerns related to the injuries, as well as focus on safety and a growing concern about how concussions affect players and the sport. The data indicates that the focus on the latter does not really overtake the former until 2017, which suggests from 2012 to 2017, a shift is taking place regarding how head injuries are covered in media content. Additionally, this is contextualized by the second phase of the research. The journalists interviewed for this study acknowledge a greater focus on health and safety within the NFL. The findings found in both phases of the research falls in line with previous research that has suggested that health and safety is becoming a greater focus on media coverage surrounding the NFL. Sanderson et al. (2016) found that in coverage of injuries, media coverage was prioritizing the health of players and shifting blame to organizations for when and how injuries occur. Furthermore, Cassilo and Sanderson (2018) found that in media coverage surrounding the retirement of NFL player Chris Borland, coverage was largely supportive of Borland's decision and focused on the health risks of playing football. While the data in those previous studies do

not fall directly within any of the time frames of this research, they do fall somewhere between the overall time period of 2012 to 2017 of the sample.

Thus, this research confirms what was found in those studies, that attention to the health risks and safety measures of football is present and growing in the coverage. This dissertation also establishes that the trend of a focus on health risks continues. Thus, it is notable that in the last time period (Sept. 7, 2017-Oct. 7, 2017), the focus on health and safety in regards to head injuries overtakes the more traditional aspects of injury reporting such as status updates and team concerns. Of course, being the most recent of the time periods, it is unclear if the latest data is either the continuation of a trend or an anomaly of that specific time frame. Therefore, it is encouraged that future research continue to monitor this type of coverage to see whether this pattern of a health-first focus within coverage continues.

Culture of football stays strong but changing. While looking at the patterns and trends within the data in each of the four time periods of media coverage, it is important to note that "culture of football" exists in each time period. Previous research has established that violence and masculinity are deeply rooted in the essence of football (Anderson & Kian, 2012; Butterworth, 2012; Foote, Butterworth, & Sanderson, 2017). Despite the growing attention on health and safety within the media coverage in this research, the accepted violence and hegemonic masculinity is always present. In each time frame, ideas persist such as the NFL's "next man up" culture for when a player is injured and that violence will never fully be removed from the sport as collisions and injuries are just "a part of the game."

The journalists interviewed for this research echo that sentiment as well, recalling instances in which players have expressed acceptance of getting injured in the NFL due to the nature of the sport. Some reporters mentioned that the tolerance of violence in the sport by those

within the game as well as those outside the game like media and fans makes it difficult to be overly critical of how often players do get hurt. The persistent existence of this narrative, both within coverage and reporter anecdotes, makes it difficult to envision football without some admiration of violence and masculinity. Even those previous studies which show a greater focus on health risks within NFL coverage (Sanderson et al., 2016; Cassilo & Sanderson, 2018), there still exists coverage that embraces the masculine and violent roots of the sport. While those studies and this current research do show less of a glorification of playing through pain as time goes by, those reporters close to the sport do not believe there will be a day when that part of the sport's culture and how it is communicated by those within the game is ever removed. As referenced by one reporter, even a sport like boxing, although severely decreased in popularity, has held onto its roots of violence to remain in the cultural awareness of the sports fan. And as both phases of the research indicated, as long as the NFL continues to experience great financial success, particularly from television contracts, there is little incentive to change the violent and masculine nature of football.

However, it is not all business as usual for the NFL. The trends that emerged in the media coverage can partly be explained by efforts led by the NFL. As the league put more emphasis on safety and head injuries, so did those within the league. Reporters expressed in their interviews that what they covered surrounding head injuries was partially dictated by the NFL, including the league's decision for a settlement with former players and rule changes that promoted safety. As a result, while in 2012 coverage patterns indicated blame for the NFL, in ensuing years there was a greater debate about the league's role in creating a safer sport. Additionally, the NFL's decision to institute a concussion protocol for players beginning in 2009 has, according to the interviewed reporters, greatly influenced how those injuries are talked about by coaches and

players and how they are correspondingly covered in the media. For those interviewees who covered the NFL prior to 2009, they recall a different structure regarding a concussed player, as those who sustained a head injury were often available to speak to the media after games and in practice. Now, though, and in the time period in which the data was examined, the protocol limits what both the coaches and players can say, and the player is in all cases unavailable to speak in games after they sustain a concussion. Reporters felt like this has actually limited the amount of information they can gather regarding head injuries in interviews. Whether that is for caution or for the league to cover their own liability, this shift in NFL policies has influenced who speaks and what is said in terms of head injuries, which in turn limits what can be covered by the media and what frames emerge in that coverage. Tuchman (1978) listed organizational constraints as one of five factors of news production that influence how journalists frame an issue, and the NFL's structure of communication about head injuries would support this idea.

What players and coaches are saying. In order to be able to compare and discuss the overall frames within coverage in relation to the frames that emerged from player and coach quotes, I will now jump ahead to RQ3. While RQ1 examined the media coverage frames, RQ3 analyzed the frames of the quotes within the coverage. Of course, the quotes in the articles were chosen by the journalists, which can impact frames (Welch, Fenwick, & Roberts, 2006), but this process does give a better understanding of how head injuries were being talked about by those within the sport. Perhaps unsurprisingly given what was just discussed regarding masculinity and violence within football, in both the 2012 and 2017 data samples, the most prevalent pattern within quotes fell into the "culture of football" frame. This provides further support that this part of how football is being viewed is not going anywhere. By being part of the conversation of those within the sport, an acceptance of hegemonic masculinity and violence will continue to be

part of the media coverage, as reporting practices of the NFL beat writer include reporting on what is being said by those within the sport.

Of additional note is the relative inconsistency from year to year regarding the quote frames. In the data from 2012, 2014, and 2017, the most frequent patterns are of quotes that do not place much prioritization on the health of players. However, in 2013, the most frequent frame is "taking head injuries seriously." With some contextualization from the journalist interviews, this could perhaps be understood by the changing news cycle during this time period. There was much importance placed on player safety and head injuries around the 2013 data because of the NFL's injury settlement, *League of Denial*, and player suicides. This likely drove the coverage during this time period, and while head injuries were still a common area of news coverage after 2013, the focus on player safety may not have dominated the news cycle like it did at the beginning of the 2013 season.

One journalist who covered head injuries extensively mentioned that the NFL is a very insular world where coaches and players can usually avoid outside chatter. If this is indeed a correct read of the NFL locker room, perhaps this was a rare occurrence when the chatter was so loud because of the sheer number of head injury-related issues happening all at once, that a breakthrough into these individuals' lives was made, and it became unavoidable to talk about the importance of safety. This would suggest the importance of media in giving consistent and extensive coverage to safety issues within the NFL, as it may impact player and coach dialogue and possibly their opinions.

A limited perspective on head injuries. To understand what is being said, it is important to consider who is talking, which is the focus of RQ2. In each time period, the head coach was cited most often for information related to head injuries within the story, and in all but the final

time frame, the injured player was the second most frequently cited source of information. This was contextualized with the reporter interviews, as they identified the head coach as the mouthpiece of the team. All information, whether related to injuries or not, usually comes from the head coach. And it is unsurprising that the injured player is not the most common source of information about his injuries because the reporters explained that when a player does sustain a concussion, he cannot speak to the media until after he clears the concussion protocol.

What is somewhat unexpected is that lack of medical personnel, both affiliated and unaffiliated with the team, sourced in these articles. Only in the final data time frame (Sept. 7, 2017, - Oct. 7, 2017) is a medical source listed as appearing in above 10 percent of the articles. Some further contextualization using the reporters in the second phase of the research gives clarity on why medical sources are not used in content about medical issues. The interviewees universally described a process in which trainers and medical staff are almost always off limits from the reporters, as instructed by the team, which decides who is and who is not available to speak to the media. Some reporters said they had never had any access to a medical staff member for an interview, while others said they were very rarely (e.g., twice in a 10-year period) made available to the press.

Again universally, the reporters felt that if all trainers and medical staff were available to the media, it would make it easier to cover and understand head injuries in football. Some reporters also expressed a desire to interview medical personnel unaffiliated with the team, but the time constraints of the news cycle often limited this ability. The journalist interviews gave an understanding of the news practices that add a more complex view of how and why injury stories get reported the way they do in the NFL. Examining news frames in a vacuum can be a misleading path without understanding the personal and professional factors and obstacles that

influence news coverage. For instance, interviewees described the barriers that are in place when reporting on head injuries in the NFL. Some of those barriers are the aforementioned restricted access, in some cases giving reporters the opportunity to only interview coaches and non-injured players about injury issues. Another barrier is time, as a reporter may want to do additional reporting on a head injury but is restricted by the existence of a deadline. But not all barriers are structural in nature. Reporters also described personal barriers, as the interest in the head injury issue must be there for reporters to want do the necessary reporting. Simply put, a reporter who does not care about the issue is likely going to cover it differently than someone who does, which again ties back to how the value system of the journalist can influence new frames (Boykoff, 2006). And interviewees suggested that many of their colleagues do not care about the issue because they entered the field for other reasons, like a love for the sport.

It is also important to consider the state of journalism and how that may have impacted reporting on this issue, as news practice routines can lead to frame creation (van Dijk, 1985). According to Pew Research Center, the amount of newsroom jobs fell 23% from 2008 to 2017 (Grieco, 2018). Given the declining numbers of reporters during this time period, it is not surprising to see a declining number of articles covering the issue as well. The sample drops significantly in size from 2013 (n= 147) to 2014 (n=41) to 2017 (n=23). Some of this was likely due to a limited number of local concussion cases in the 2014 and 2017 coverage compared to 2013, but the state of the journalism industry seemingly also played a role. This also aligns with a pattern of the reporter interview responses highlighting the lack of resources to cover the head injury issue adequately. Interviewees described that in the past, there would have typically been a reporter on staff who was not confined to beat reporter duties and could take a more investigative approach into these issues. Today, those positions only exist at larger media outlets. The

reporters behind *League of Denial*, for instance, held such a role for *ESPN*. Their work is an example of what time and staffing can do for covering the head injury issue. For outlets without those roles, the interviewees said they are so consumed with the primary responsibilities of covering the day-to-day efforts of the team that in most cases, they simply do not have the time to devote to investigating larger, league-wide issues like head injuries. Within their interviews, journalists detailed a long list of daily responsibilities for covering a team that can include practice updates, notebooks, features, and game coverage, not to mention any unexpected news that emerges during the time. The time is rarely there to cover this issue in season.

However, a smaller staff is not the only ramification of the financial downturn journalism has taken. Reporters also described a seemingly endless quest by outlets to drive traffic and increase readership which in turn would increase revenue. Because of this, reporters are left with a conundrum: do I cover what people want to read or what is important? That question is what interviewees described as another major hurdle when covering head injuries in the NFL because while the issue has great importance for the sport, it does not drive traffic like day-to-day reporting on the team. In a 2014 *Sports Illustrated* poll, conducted in the middle of the time period this research's data came from, 66 percent of fans said studies of health risks have no effect on their interest in the NFL (Emmons, 2014). In a journalism industry attempting to find itself again amid financial turmoil, it is likely that the amount and type of coverage about the NFL would be dictated by the interest level of the reader.

As a result, in most cases, information about injuries in the NFL, including head injuries, comes from sources who are not medical experts–largely coaches and players. There is danger in that, as the media can set the public discourse on issues of health (Stefanik-Sidener, 2013; Zhang, Jin, & Tang, 2015). If the report about head injuries in the NFL is coming from sources

who do not fully grasp the complexity of the injuries, then the public is being educated on the topic through the media with incomplete and perhaps faulty information. This structure of how NFL information is disseminated could explain why the physical risks of playing professional football were concealed for so long. It was not until medical researchers were given a voice through the media, as opposed to NFL coaches and players, that football risks were more broadly understood by the public.

Influence of *League of Denial*

At the crux of the research, though, is the interest into what influence, if any, that the 2013 release of the documentary *League of Denial* may have had on the media coverage of head injuries in the NFL. To do this, first the research included an examination of what media coverage frames existed before and after the release of the documentary. Then, to explain what was seen in the first phase and to gain a better understanding of the contextual factors that existed during the time of the documentary's release, NFL beat writers were interviewed. What emerged from the data was a somewhat pessimistic view of the documentary's influence. Journalists were largely split about how the documentary influenced themselves and their colleagues. Some believed that *League of Denial* really did inform them and impacted how they viewed football and covered the NFL. Others were more dismissive of the impact, saying it was short-term at best or suggesting that they were already informed prior to the release of the film.

Previous research on documentaries has indicated that they can influence attitudes (Stamou, 2009) and behaviors (Beattie, Sale, & McGuire, 2011), but research has failed to establish if documentaries can influence media coverage. A difference here between studies related to influential documentaries such as *Blackfish, An Inconvenient Truth*, and *Super Size Me* is the viewer's knowledge base. Journalists indicated that *League of Denial* was informative but

many paused at classifying it as eye-opening. This largely stems from the reporter being an already informed party on many of the issues that the documentary covered. By covering the NFL as a profession, these reporters have witness concussed current players and broken down older players like how Mike Webster was portrayed in the film.

However, while each reporter indicated that it was unlikely that the documentary caused a major shift in their thinking and coverage of the NFL, they also stopped short of saying that the documentary had no impact. As referenced above, the documentary fit in as a piece of something. It was part of a wave of information or as Gladwell (2006) has referred to as a "tipping point" when enough "little thing" reach a critical mass and lead to change. The journalists described a timeline in which starting around 2012 they began to report on and read other reporters' coverage on a series of NFL head trauma stories. There were medical research, player suicide, and lawsuits. And in 2013, *League of Denial* became a part of that wave of information too. To the reporters, the documentary was not the primary cause for any shift in coverage but instead a piece of the puzzle. It was something that continued to raise awareness in themselves and others and added information in areas that previous notable events related to head trauma did not. This is not to say that the documentary may have affected a different subset of individuals differently, but for an informed group of NFL beat writers, it appears to be just part of what shifted their coverage to focus more on health risks within the sport.

When connected to the data, it is clear how this wave of information may have reached a "tipping point." As the data shows, frames about the health issues and head injuries in football had been a part of each time period. The conversation, both in media coverage and by those within the sport, was there but never to a point where it began to dominate the coverage. Head injuries were largely dealt with in coverage on a case-by-case basis rather than as a collective

issue. Then, in 2017, for the first time, the most prevalent frame in media coverage was a pro-health and pro-safety frame, "dangers of football." Within this frame, head injuries conversation was focused on the issue as a whole and was not only discussed when a player sustained a concussion. And at some point during the wave of information that was occurring nearly simultaneously with the media coverage used as a sample, there appears to have been a "tipping point" that contributed to a change in how head injuries were covered in football.

Taking that all into consideration, there was one factor that seemed to influence reporting on head injuries more than any other–personal experience. In every reporter interview, the interviewee described some memory or encounter of an NFL player they used to cover who was suffering from the effects of head trauma, either during or after their playing career. The reporters explained that covering an athlete on a daily basis creates a closeness and relationship between themselves and the player. While one plays the sport and the other writes about it, they work in essentially the same "office"–reporting to the same place every day and working alongside each other to make a living. In those instances, when a player that a reporter has fostered a connection with begins to show signs of the long-term effects of head trauma or in some cases commits suicide, the reporter believed that those cases stuck with them and did cause them to think about and cover the NFL differently. This thought process aligns with previous research as a personal connection to a victim of a health issue can impact how an individual feels about that issue (e.g., Small & Simonsohn, 2007; Lange, Thom, & Kline, 2008). In *League of Denial*, much of the documentary was devoted to following the career and post-career of Pittsburgh Steelers player Mike Webster. Although a well-known NFL Hall of Fame player, Webster retired from the NFL in 1990. None of the reporters interviewed were working during his career, and perhaps that lack of personal connection to and interaction with Webster is what

blunted some of the effects of the documentary for those reporters. Had a more modern era player been highlighted, such as Junior Seau, it is possible that the effects of the documentary on reporters and media coverage may have differed. Further investigation is needed in this area.

Implications and future research

While qualitative research is not generalizable, it still has applicability in how it adds to the body of research and directs future study. In particular, this study furthers the research in several areas, including media framing, communication of head injuries and concussions, and documentaries. Because of this, the implications of this research's data and findings as well as its direction for future study is discussed below.

An informed audience. Previous research has established that media frames can shape individual perspective around certain issues (Gamson, 1992), including setting the public discourse on certain health issues (Stefanik-Sidener, 2013; Zhang, Jin, & Tang, 2015). Therefore, this data does not just reveal how media cover head injuries in the NFL but also how this issue was presented to the public. Assuming that the general public is not educating themselves through medical studies of former NFL players' brains, almost all of the information the public receives about this issue is coming from media coverage. Therefore, it is even more important to understand the trends and patterns that are within that coverage.

As discussed in previous sections, this data illustrates a shift in how NFL head injuries are being discussed. The team-centric focus that stressed the culture of the sport was eclipsed by a focus on player safety and taking the injury seriously. Again, this is not just an analysis of media coverage. It is an analysis of the information that the public is receiving about head injuries, as their knowledge base likely comes from media coverage of the issue. Therefore, if the media is putting more of a focus on the health risks of the NFL, that can have ramifications about

how those who consume the content make decisions about playing football or letting their children play football. The shift in coverage can create a more informed reader.

This, however, is predominantly speculative, and because of that, there is a need for future research addressing this issue. Additional study should be performed analyzing any attitude or behavior changes about head injuries in the NFL influenced by certain frames within the media coverage. By performing this sort of research, our knowledge will grow on the effects of media frames on the reader and will further our understanding within the context of sports and health.

Considering the newsroom environment. The second phase of this research added a contextualization to a media framing study that rarely occurs – the reporter perspective. This allows the researcher to make more informed inferences from the data. There is no doubt that this inclusion impacted how the framing findings were discussed, as journalists gave insight into the news practices and work environment that contribute to reporting. This included the sources available to an NFL beat writer, the time constraints of covering an NFL beat, the impact of journalism's financial troubles on reporting, and the varying levels of interest among reporters on covering head injuries within the sport. These factors were instrumental in understanding the frames within the data.

The findings related to the state of the journalism industry are particularly important and extend beyond the frames seen in the news coverage. The drop in the amount of coverage for each time period in 2014 and 2017 could potentially be a result of smaller staffs and less newspaper coverage during this time period. This would suggest that the financial woes of the journalism industry are not just influencing how issues are covered but also how much coverage

is being devoted to that issue. With a declining number of resources, it would appear more difficult for a news organization to serve as a watchdog in both a sporting context and beyond.

Although news practice routines have long been referred to as a contributing factor in media frame creation (van Dijk, 1985), it is rare to see that perspective included within the research process. Often in media framing studies, the researcher will make their own inferences from the data or use additional researchers to contribute to that process. Therefore, it is a recommendation that future media framing studies should incorporate reporter interviews whenever feasible. This research is a clear example of how their inclusion adds a layer of contextualization that is necessary to understanding media frames and should serve as an example of their benefit.

Finally, while the news practice routines and the state of the journalism industry likely influenced the small sample size of the 2014 and 2017 data, future research should account for this and aim for more robust sample sizes. Although the smaller sample sizes during those time periods does allow for conclusions related to the state of the journalism industry and how that may affect coverage, it also makes it more difficult to establish patterns in coverage or to compare frames over time. Therefore, future data collection should account for this to ensure a larger sample. However, research should also still acknowledge the contextual factors that are the cause for this adjustment.

Personal connection leading to concussion awareness. From the reporter interviews, a pattern emerged in which the interviewees indicated being affected when players they covered suffered head injuries or long-term health issues from playing football. The reporters believed that these instances influenced how they viewed football and head injuries, while also influencing how they covered the sport. For these reporters, no other factor (e.g., medical

research and *League of Denial*) could approach the effect felt from seeing a player they covered suffering from any head trauma symptoms. Directly covering a player is an important factor within this process. For instance, reporters knew of Mike Webster, the main athlete chronicled in *League of Denial,* but some said that seeing his health issues in the documentary did not connect with them because they had never encountered him in their profession. However, even brief interactions with a player such as Junior Seau left lasting impressions on the reporters that some felt changed how they covered the sport. This pattern would appear to be noteworthy, as it suggests a possible path to health education, particularly related to head injuries in the NFL. Research has suggested that despite media coverage and football organizations taking the concussion issue more seriously, fans still express adherence to the culture of football and resistance to safety changes within the sport (Sanderson & Cassilo, in press). Given the reporter responses, a focus on personal connection to the individual may bridge that gap between the media coverage and public attitude.

This is an area that future research should further explore. Studies should be designed testing the effects of how personally relevant information and experiences related to head injuries in football affects an individual's awareness and concern for the issue. This could be done by examining how attitudes differ among those individuals who know someone who has suffered a head injury versus those individuals who do not. Research could also explore how tailored messages regarding head injuries in football influence awareness, concern, and attitudes, as well. Given the previous research focusing on how a personal connection to a victim of a health issue can impact how an individual feels about that issue (e.g., Lange, Thom, & Kline, 2008; Small & Simonsohn, 2007), it would appear this an area worth exploring in an effort to improve the awareness and education of head injuries in football.

Need for more documentary research. Documentaries have been described as an underrepresented area of research largely relegated to textual analysis (Nisbet & Aufderheide, 2009). This study attempted to add to the limited body of research in this area, exploring any influence that documentaries may have on media coverage. While findings suggested that *League of Denial's* influence was less based on the isolated viewing of the film and more on how the film fit into the growing body of information regarding head injuries in football at that time, the inquiry is still an important one. It introduces factors worthy of examination in documentary research, such as the context of the film's release and the initial knowledge level of the viewer. Because of the qualitative nature of the study and the factors that vary around any documentaries release (e.g., platform, viewership, content), it would be inaccurate to say that the findings in this research would apply to all documentaries. Instead, this research should raise more questions and more lines of inquiry for researchers to explore. As an underdeveloped area of research to this point, there are many gaps and questions worthy of exploration and future research should build off this study by examining the inquiries raised within.

Limitations

Although this research contributes to our understanding of media coverage of health issues in sport as well as the influence of documentaries on media coverage, the study does include several limitations. These largely stem from the sampling and data collection stages of the research.

First, the sampling of the first phase of this research only considers five sources of media content. Although a systematic and informed process was undertaken to select which sources would be included in this research, the media coverage data is limited to these five sources and the journalists who work for them. It is, of course, very possible that different media outlets and

different journalists may cover head in the NFL in different ways, as previous research has indicated. However, out of necessity to have a manageable sample to code for analysis, not all media outlets could be included. It is possible that inclusion of other media outlets could have led to different frames, but it is encouraging that the data and findings from this study show similarities to other studies that have investigated media coverage of NFL health issues.

The research was also limited by using phone interviews for the second phase of data collection. The use of phone interviews was out of necessity due to the diversity of the sample in terms of geographic location. Still, there is a context within the interviews that is lacking when they are not conducted face-to-face. As a researcher, I am unable to observe the body language and behavior of the individual during the interview, which may have added additional insight to the data collection. Such observance could have led to the formation of follow-up questions during the interview that may have caused other themes and patterns to emerge. This is a common limitation during studies that use phone interviews but is still one that is significant enough to be addressed.

Conclusion

This study examined what, if any, influence that *League of Denial* had on media coverage surrounding head injuries in the NFL. To do so, I performed a media framing analysis of media coverage of head injuries in the NFL during four, one-month periods between 2012 and 2017. Then, to better understand and contextualize the patterns within that media coverage, NFL beat writers were interviewed. The findings indicated a clear dichotomy in media coverage between frames that focused on the impact on the team and football's violent culture, and other frames that focused on safety and the growing concern about how head injuries affect players and the sport. The latter eventually overtook the former in frequency during the final set. Reporters,

though, indicated that *League of Denial* by itself likely did not have much influence on the shift in media frames. Instead, reporters expressed that a wave of information about head injuries in football that included the documentary collectively influenced media coverage. Additionally, reporters expressed that any personal connection or working relationship they had to a player who suffered a head injury or long-term effects of playing football influenced that reporter's attitude and coverage about head injuries more than any other factor.

This research is further evidence of a shift in attitudes surrounding the United States' most watched sport. While media coverage once glorified player pain and sacrifice, there is a growing body of evidence that more attention is being paid to the health issues of football and the safety of its players. That is not unique to just the media coverage. Reporters indicated a shift in how coaches and players talk about and approach head injuries within football. While there is still some resistance in this area, it is clear that even those who play or coach the game for a living are giving health and safety more attention. That is seen not just in this research, but in the actions of players, including a wave of early retirements.

While *League of Denial* may not have any direct influence on this shift, it is part of the trend. It adds to the body of information and evidence about football's health dangers, and while most reporters did not feel as though the documentary did greatly affect their attitudes and coverage, some did indicate a greater impact than others. A documentary can appeal to the public differently than other forms of information, and considering its effects goes beyond this study, as there is a need to grow the body of communication research in this arena.

As we learn new information about head injuries in football, we seek to find ways to effectively disseminate that information to the public. While documentaries are one way to do this, this research shows the great utility of personal connection to health issues. This, though,

was not an intended area of exploration of this research, but given the journalist response surrounding this idea, it is an important area that needs further inquiry. Research has shown it can be difficult for the public to accept football's dangers, and perhaps more traditional communication health strategies like disseminating the information through media content may not be as effective in this area. A truly informed audience about health injuries in football still seems to be lacking, and new communication strategies may be of use.

It is how this study furthers research in all these areas that indicates its importance. As much of the data has indicated, violence and injuries are an innate part of football that can never be completely removed without changing the entire nature of sport. Therefore, head injuries and their effects are not going anywhere. However, what is changing is the dialogue and mindset around those injuries. Research such as this can better understand those changes, why they occurred, and how further change may take place in the future.

Appendix A

News Article Coding

1. **Name of article:** Enter the name of the article.
2. **Publication:** Enter the name of the publication.
3. **Author:** Enter the name of the article's author.
4. **Date:** Enter the date of the publication.
5. **What emergent themes exist in this article?**
6. **What emergent themes exist in quotes by players and coaches within this article?**

7. **What experts were cited within this article?**

    a. Medical professional (unaffiliated with team): Yes / No

    b. Medical professional (affiliated with team): Yes / No

    c. Member of coaching staff: Yes / No

    d. Member of front office: Yes / No

    e. Injured player: Yes / No

    f. Teammate of injured player: Yes / No

    g. NFL media analyst: Yes / No

    h. Other:

Interview Protocol

Hello. Today I am interviewing you about your time as a journalist covering the NFL and how the documentary *League of Denial* may have impacted your reporting. This interview will be used as part of my dissertation at Kent State University. I'm going to record this interview if that's okay with you.

SECTION 1 – Personal experience

Question 1
How long did you/have you covered the NFL and in what capacity?

Question 2
Have you covered any instances in which a player suffered a head injury?

Question 3
Could you please speak further on how you went about reporting such instances?

- What was that process like? How does it play out?

Question 4
What personal or societal factors do you believe influenced your reporting of such instances?

SECTION 2 – League of Denial

Question 5
Have you seen the documentary *League of Denial?*

- If so, what was your reaction?
- What do you think its impact was?

Question 6
In what ways, if any, do you believe *League of Denial* influenced the field of sports journalism as a whole?

- Do you believe it was a turning point?
- If not, was there a turning point?

Question 7
How did the documentary influence your media coverage of the NFL?

- Can you provide any examples of this influence?

SECTION 3 - Research

Question 8
In my analysis of media coverage, I found that in concussion coverage there has been a balance between focus on the game/team and highlighting the dangers of football and concussions. In recent years, there is more and more focus on the latter. Why do you think that is?

- Do you buy it?

Question 9
Among my other findings was that coaches are quoted far more often on player health than any medical professionals. What factors contribute to that?

Question 10
Previous research has established that media coverage of the NFL used to glamorize playing through pain but now supports the health of the players. To what do you attribute this?

- Do you buy that this is actually happening?
- Do you feel as though the aforementioned shift is a permanent one? If so, why?

SECTION 4 – The sports journalist

Question 11
As a sports journalist, where do you think your priorities lie? Should the focus be on providing updates on the team to your readers or is there a responsibility to dig into these health issues?

- What barriers exist to being able to do both?

Question 12
If you could do anything to improve the media coverage of concussions in football, what would it be? You can remove any barriers, change any part of the process, whatever you need to do.

FINAL QUESTIONS

Question 13
Is there anything additional you would like to say about the impact of *League of Denial* on media coverage of NFL games?

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