

ABSTRACT

MACDONNELL, TYLER BRUCE. An Examination of Sports Illustrated Articles about Pain and Injury. (Under the direction of Dr. Judy C. Peel.)

The purpose of this study was to examine the mediated messages about pain and injury as conveyed by the most popular sports magazine *Sports Illustrated* from the years 1992 – 2006. Participation in sports has many benefits but can also pose health risks to its participants. This study was conducted to compare data from a 1993 study by Nixon and look for any significant changes in the amount and type of mediated messages. Articles relating to pain and injury were collected from the years 1992 – 2006 from *Sports Illustrated*. These articles were then coded based on who was the source of content, as well as, the way in which the messages were mediated to the public. Results showed that there were significant changes in the distribution of mediated messages from the previous study. The study also revealed a change in how athletes rationalize their participation in sports when injured or in pain. Recommendations for future study include expanding the research to include females, exploring other forms of mass media and how legal and judicial factors may play a role when injured athletes are encouraged to play with pain.

An Examination of Sports Illustrated Articles
about Pain and Injury

by
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BIOGRAPHY

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Go Pirates! Go Wolfpack!

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CHAPTER I

Introduction

Participation in sports has many benefits, but participation can also pose a significant health risk (Edwards, 1973). For high-level athletes, participation in sports can cause acute pain and eventually the development of chronic pain (Kotarba, 1983). The attraction to and enjoyment of sports for males is well documented. Sports injuries are also well documented but far less discussed than the benefits of sports. What is even less documented are the influences of mediated messages on the athletes to accept the risks of injury and pain.

Sports Illustrated is the most widely circulated sport media magazine in America today. The magazine has a circulation rate over 3 million per year. The magazine is then read yearly by almost 20 million other readers who do not subscribe (Time Warner, 2007). Men from 25 – 55 years old are over 72 percent of the reading audience. Many of which participate in sports currently or have participated in the past (Time Warner, 2007).

The primary purpose of this study was to examine the mediated messages about pain and injury as conveyed by the most popular sports magazine *Sports Illustrated* from 1992 – 2006 (Magazine Publishers of America, 2006). The secondary purpose of this study is to compare the *Sports Illustrated* content analysis results with the content analysis of *Sports Illustrated* completed by Nixon in 1992 (Nixon, 1993). The sports industry today is a multibillion dollar business (Quirk & Fort, 1997). From actual sporting events, to apparel, and naming rights, the chance to make money in the industry seems almost endless. Athletes do not want to allow pain and injury to limit the amount of time they can spend in the public eye, thus limiting the amount of money or other compensation they would receive.

Statement of Problem

Sports are present in everyday life. Athletes incur pain and injuries daily while participating in their sport. Participation in high-profile sports, such as intercollegiate and professional sports, can even reduce the longevity of an athlete (Munson, 1991). Many athletes today in order to achieve their place in the college or professional setting push themselves through pain and injury. Society and the media in the ways they represent athletes, teach younger generations to follow suit, by way of the Social Learning Theory. Journalists in sport magazines, such as *Sports Illustrated*, portray these qualities to their readers in articles, commentaries, investigative reports and athlete profiles. Thus, the male readers become socialized to play hurt in order to make the team, remain on the team, and/or thrive in their new position.

Statement of Purpose

The primary purpose of this study was to examine the mediated messages about pain and injury as conveyed by the most popular sports magazine *Sports Illustrated* from 1992 – 2006 (Magazine Publishers of America, 2006). The secondary purpose of this study is to compare the *Sports Illustrated* content analysis results with the content analysis of *Sports Illustrated* completed by Nixon in 1992 (Nixon, 1993).

Research Questions and Hypotheses

RQ1: Will the concept of Identity and Pain be the prominent message in the *Sports Illustrated* articles on pain and injury?

H1: The concept of Identity and Pain will remain the prominent concept in the *Sports Illustrated* articles on pain and injury.

RQ2: Will the theme of “Socialization of Athletes” remain the most prominent theme from articles from the years 1992 – 2006?

H2: The theme of “Socialization of Athletes” will not be significantly different from the findings from Nixon’s 1993 study.

RQ3: Will the theme of “Accept Risk” remain the second highest theme in the next fourteen years of study?

H3: The theme of “Accepting Risk” will not be significantly different from the findings from Nixon’s 1993 study.

RQ4: Will the theme of “Institutional Rationalization” remain the third highest theme within the articles studied for the years 1992 – 2006?

H4: The theme of “Institutional Rationalization” will not be significantly different from the findings in Nixon’s 1993 study.

Delimitations

1. This study was limited to articles received from the search engine with the keywords pain and injury.
2. This study was limited to *Sports Illustrated printed magazine*.

Limitations

1. The findings from this study cannot be used to generalize all sport media.
2. The analysis was limited to the years 1992 – 2006.
3. The data was limited to two independent coders.

Definitions

1. Social Learning Theory – a proposed explanation in which persons identify themselves with a social environment (Bandura, 1977).
2. Framing Theory – a proposed explanation to understand how meaning is created and negotiated within the concept of everyday life (Goffman, 1959).
3. Body-Contact Sports – activities in which there is direct or indirect player to player contact. These sports can be played with pads for protection or without (Websters, 2007).
4. Phenomenological sociology - which ordinary members of society constitute and reconstitute the world in which they live (Kotarba, 1983).
5. Existential sociology – Socialization of a group in which survival, elevation and liberation are present (Kotarba, 1983).
6. National Electronic Injury Surveillance System All Injury Program – A database controlled by the U.S. Consumer Product Safety Commission which includes all injuries incurred in America as reported by hospitals (CPSC, 2007).

Significance of the Study

Thus far, many studies have examined specific athletic injuries, rehabilitation of sport injuries, and athletes' pain thresholds. There has been limited examination, however, of the socialization of male athletes to "play with pain" as conveyed by print media sources such as *Sport Illustrated*. This study adds to the body of knowledge about the cultural message of playing with pain and injury conveyed by the print media. This study extends the work of Nixon published in 1993. This study also identifies whether or not there have been changes

in *Sport Illustrated* messages related to pain and injury since 1993 and whether these changes are significant. A change in the mediated message could make it more acceptable for male athletes to be honest about pain, to complete necessary rehabilitation and as a result reduce the risk of more serious injury, permanent disability, or premature death.

CHAPTER II

Literature Review

The purpose of this study was to examine the cultural messages about pain and injury conveyed by America's most popular sports magazine, *Sports Illustrated*, from 1993 – 2006. This study applied the same six thematic categories used by Nixon in "Accepting the Risks of Pain and Injury in Sport: Mediated Cultural Influences on Playing Hurt" to categorize media messages about pain and injury. This examination of messages about pain and injury was limited to men's intercollegiate and professional sports and was based on a content analysis of all *Sports Illustrated* articles that included the words "pain and injury."

The conceptual basis for this study were Bandura's Social Learning Theory and Goffman's Framing Theory. These two theories provided the rationale for evaluating print media statements related to pain and injury. They also were used to explain the relationship between print messages and athletes behaviors during injury situations. The review of literature provides an overview of Bandura's Social Learning Theory, sport print media, Goffman's Framing Theory, Pain in Sports and a review of the article, "Accepting the Risks of Pain and Injury in Sport" by Nixon in 1993.

Research from different sources helps to elucidate the concepts of pain and injury in the sport and society. For example, the general principles of Bandura's Social Learning Theory can be used to explain why and how people react to different stimuli in different ways. These same principles can explain how and why athletes react in a certain way to pain and injury. Goffman's Framing Theory helps explain the athlete's behavior because of the construction of reality set forth in print media. These two theories provide the framework to explain why athletes respond as they do when confronted with pain and injury in sports.

Social Learning Theory

Bandura's Social Learning Theory focuses on learning that occurs within the social environment. This theory explains how individuals learn to behave by observing others and reacting to different environmental stimuli (Bandura, 1977). The Social Learning Theory postulates that for social learning to occur; both a cognitive and a behavioral component must be present. The cognitive component consisted of awareness and expectations of positive reinforcement or punishment for a given behavior. The behavioral component consisted of how these expectations affect the individual's actual behavior. Behaviors are reinforced or punished depending on the individual's social environment.

The Social Learning Theory consists of four basic concepts. These are behavior potential, expectancy, reinforcement value and the psychological situation (Rotter, Chance & Phares, 1972). Each of these concepts was applied to explain the motivations for an athlete to react to different stimuli.

Behavior potential was explained as the probability of someone conducting themselves in a specific way based on previous actions. Other reactions the individual may have had are factored into this potential, but the outcome will almost always follow their previous patterns (Rotter, Chance & Phares, 1972). Current behavior is explained as a product of the individual's background. The concept of behavioral potential describes how an individual will react based on their childhood and early social interactions (Bandura, 1977). For example, an individual who was brought up around a specific sport, such as football, gains a background in football. Therefore, when the time comes to select a sport to play, that individual will most likely choose football based on their previous exposure to the sport.

Coaches also affect the behavior potential of an athlete. The role of a coach has often been described as the person who pushes the athlete to achieve their utmost, which is sometimes construed as pushing that athlete “over the line.” Athletes feel they must accept the challenges that the coach puts in front of them to perform well in order to keep their position. Athletes, especially those at elite levels, experience a great deal of pressure, and this often results in athletes challenging what their body is telling them is painful and wrong, and pushing through the pain to optimize their chances of playing and winning. As a result, early interactions with coaches and other adult authority figures play a role in how the athlete will respond to pain and injury later on in their sport career.

Expectancy was the second concept of the Social Learning Theory. Expectancy has been defined as the potential or expected result or reinforcement based on a certain behavior (Rotter, Chance & Phares, 1972). Individuals react to different stimuli based on their cognitive ability to anticipate receiving a specific type of reinforcement. Based on the Social Learning Theory’s concept of expectancy, individuals become dependent on the results of a behavior in shaping their future conduct. Reinforcement value and the concept of expectancy are often paired. Reinforcement value was defined as what importance or creed certain enforcement had for the individual. (Rotter, Chance & Phares, 1972). Thus, the social learning of the individual is dependent on the relative merit of the reinforcement identified by them personally. Here the individual makes their own behavioral decisions based on what they feel would benefit them the most or receive the most positive reinforcement.

An athlete often receives positive reinforcement by modeling the behavior of other athletes. When an athlete observes another player in pain remaining in the game and receiving praise from teammates and coaches, they are more likely to model this same

behavior the next time they are injured. The athlete is, therefore, reinforced by acceptance into the group and by praise from the coach. Curry (1993) referred to this process as the normalization of sport injury.

Other individuals, such as an athletic trainer, may reinforce the importance of rehabilitation after an injury. The reinforcement value, however, of the athletic trainer's recommendations may be perceived as of "less" or "lower" value to the athlete than the reinforcement value of other players and coaches. As a result, the athlete desires to return as quickly as possible to practice and games despite their pain and injury.

The fourth concept of the Social Learning Theory is the psychological situation. The psychological situation is evaluated by the individual in each environment. Pain and injury are all part of the psychological situation in the sport setting. Rotter, Chance & Phares describe this concept by stating, "a person continuously reacts to aspects of their external and internal environment (1972)." The concept of using the psychological situation provides researchers with insights into how and why individuals react to these stimuli in the manner that they do.

In the case of *Sports Illustrated*, the messages conveyed through article content are part of the readers' external environment. An analysis of article content illustrates how readers, who are usually men, are provided with example after example of how to react to pain and injury. In a *Sports Illustrated* article from 1995, an athlete recalls being hit in the head by a pitch. "I had six facial-bone fractures, but I was available to play the next day (Seitzer, 1995)." Individuals base their reactions to an injury on what they have experienced in the past, as well as, what they psychologically think will be in their best interests because

of the group surrounding them. They do not want to appear to be the weaker individual within their social settings.

Sport Print Media

Major types of mass media sport coverage include: television, print (newspapers and magazines), radio, and the internet. Mass media is important to sport because of its ubiquitous nature and the large number of individuals who obtain sports information through media sources (Koivula, 1999). Mass media provides individuals with content, commentary and images on the roles of males in sport. Sports have often been referred to as “generators of cultural meanings...specifically the ideology of masculinity,” (Gay, 1992). Past studies indicated that the information received from sports media supported the ideology of male superiority (Messner, 1993).

Sport magazines are a widely available type of mass media. *Sports Illustrated* as well as other sports magazines such as ESPN help to convey norms about pain and injury in sport. Magazine writers and editors create an image or concept for how athletes should play with pain and injury and this image tends to perpetuate the norm.

Framing Theory

Goffman’s Framing Theory was developed to understand how meaning is created and negotiated within the context of everyday life (Goffman, 1959). Goffman later extended this theory to explain how mass media can influence public perceptions of the social world. The media plays an extremely large role within intercollegiate and professional sports today. The media is a powerful factor in determining the public’s beliefs, values and attitudes (Koivula, 1999). Everyday, whether heard on the radio, seen on television, or read in newspapers and

magazines, what happened during last night's sporting events is available for public view and analysis through the media.

Goffman used the Framing Theory to define different areas and ways that the media will promote certain activities or reactions from individuals. Primary frameworks, as described by Goffman were considered as "a rendering of what would otherwise be a meaningless aspect of a scene into something that is meaningful," (Goffman, 1974). Through media frames, people learn aspects of life and a way in which to view them. Goffman continued to describe primary frameworks by "allowing the user to locate, perceive, identify, and label," the circumstances in a way in which the user will be able to understand the situation (Goffman, 1974).

The media uses its power as a channel for information that can be "framed" or constructed to maintain social norms. Tankard described framing as "wording a question in a particular way to frame the issue in a specific way" (Tankard, 2001). Further in the discussion, Tankard cited an article by Hackett in which that author described framing as, "a method the media is moving toward in which hidden assumptions can be exposed due to the media's ability to get below the surface of the information" (Tankard, 2001).

There are different aspects of the framing concept. In the past, media have used the idea of bias to promote or present information (Hackett, 1984). Currently, the media uses framing due to its ability to set a background or base story for the ideas at hand. Framing also allows for different views, even small differences, to show through by presenting topics in different ways (Tankard, 2001). Tankard finalized the idea behind the power of framing by stating "framing...has an ability to define the terms of a debate without the audience knowing it has taken place" (Tankard, 2001).

Framing affects cultural messages that occur in all mass media on a daily basis. Athletes are taught at an early age how to behave in certain situations through the medias portrayal. Athletes grow up learning about how others return to play after a serious injury. Magazines and newspapers describe athletes in pain and suffering, but then within a few days, there is a description of how the athlete returns to play without complications. Athletes who play hurt or return to help their team even if the injury is not completely healed are considered heroes in the eyes of the public because of the way the media portrays them (Messner et al, 1999).

Pain in Sports

There is a history of athletes playing while hurt and in pain The concepts of Social Learning Theory and Goffman's Framing Theory were evident in the *Sports Illustrated* print messages. Males in high profile positions such as intercollegiate and professional sports are in the public view and become role models for many young athletes and weekend warriors. If they showed weakness, their male identity would be questioned. The following quote from Montreal Candian's, Assistant Coach:

Dave King illustrates this expectation:

“Playing hurt is a status thing. It's the simplest way to getting the respect of teammates, opponents, coaches. As coaches, we're always judging players. After a hard check or big-time slash, is he the kind of guy who gives up on the play and heads to the bench or does he stay with the play? Pain is one of hockey's measuring sticks. There are some who come up small, branded as “soft” even though their pain threshold, not their courage, might be lacking (Farber, 1998).”

Examples of past sport role models who played hurt also socialize athletes to continue this practice. Johnny Unitas, who played in the NFL from 1956-1973, had three broken ribs, one broken vertebra, a torn ligament in his knee and his arm crushed between players.

Today, he has had both knees replaced and is basically unable to use his right hand (Nack & Munson, 2001). Another example of a former player who sacrificed his body for the team is Chris Washington. He played in the NFL from 1984 – 1990. During that time he tore ligaments in both knees, broke his leg, tore a pectoral muscle, and pinched nerves. Today he has arthritic knees, his hand tremors, he has back spasms and he has difficulty picking up his daughter (Nack & Munson, 2001). More recently an article in *Sports Illustrated*, described how a team dealt with the loss of two pitchers because of injury. These pitchers had injuries so severe, they were not allowed to participate until they were healed (Greene, 2005).

Kotarba explained the effect pain has on professional levels of sport in the following way, “pain in all varieties is an inherent feature of professional sports” (1983, 162). In order for the professional athlete or collegiate athlete to achieve success, they must play through the pain.

Athletes learn to deal with pain and move on in order to continue with their participation. An athletic identity has commonly been associated with the qualities of toughness, perseverance and determination (Bandura, 1989).

Almost every athlete will get injured within their career. According to American Sports Data Inc., in the year 2002, there were a total of 212,871,799 incidences in which individuals participated in football, basketball, in-line skating and bicycling (2007). Of these sport incidents, 23,628,768 total injuries occurred (American Sports Data, 2007). This averaged 11 injuries per 100 participants. According to the National Electronic Injury Surveillance System All Injury Program, basketball had the highest number of total injuries at over 680,000. Football followed behind with just over 413,000 injuries. The sport

documented with the lowest number of injuries in the year 2001 was Track and Field with 15,113. This data demonstrated how prevalent injuries are within sports.

Since most athletes will eventually experience pain and injury in the course of their athletic career, the “framing” of print media messages becomes an important influence on the individual’s behavior. By framing the media message to encourage athletes to minimize pain and keep playing, the chances of longer rehabilitation, chronic injury, or more serious injury increases for athletes.

Accepting the Risks of Pain and Injury in Sport, H. Nixon

The current study of pain and injury in sports media replicated the study published by H. Nixon in 1992. The same parameters were used to evaluate and interpret the meanings of articles in *Sports Illustrated* based upon the concepts of pain and injury. Nixon’s study was used to, “clarify the messages portrayed by sports print media about pain and injury and to help understand why these messages contribute to the motivation of, specifically, male athletes to risk their bodies to play sports” (Nixon, 1993). In this study, Nixon identified six major thematic categories in which the author grouped all content items. Nineteen subcategories were identified in which to code the content items. All categories were based on the idea that athletes are exposed to a set of mediated beliefs about structural role constraints (Nixon, 1993).

Each category was given keywords or phrases to look for in order to provide consistent identification of content. Structural Role Constraints was defined as the basic expectations of roles athletes face in society (Nixon, 1993). Structural Inducements and Support referred to rewards the athlete may receive for who they are and what they do (Nixon, 1993). This followed very closely with the concept of reinforcement found within

the Social Learning Theory. Cultural Values promoted the idea of general cultural conformance. Such as displaying good character and proving masculinity (Nixon, 1993). Institutional Rationalization was when management or front office personnel stepped in or became involved. This was more predominate when the issues of risk of injury were discussed (Nixon, 1993). Socialization of Athletes referred to how the Social Learning Theory and Framing theory taught athletes to act in the way they did. They learn how to react to different situations, as well as, to develop as individuals in society (Nixon, 1993). Finally, the category of Accepting the Risks and Pain referred to the athletes' explicit or implicit willingness to accept the risks of sport injuries. Athletes in this category have accepted the framing of sport injury and pain as created by society and the media (Nixon, 1993).

Chapter III

Methods and Procedures

The purpose of this study was to examine the cultural messages about pain and injury conveyed by America's most popular sports magazine, *Sports Illustrated*, from 1993 – 2006. The study examined the use of “pain and injury” within the confines of sport print mass media. This study used Nixon's 1993 study, *Accepting the Risks of Pain and Injury in Sport; Mediated Cultural Influences on Playing Hurt* (Nixon, 1993).

Statistical analysis was conducted using SPSS version 14.0. Descriptive summary statistics were conducted on the articles from 1992 - 2006. A Pearson's chi-squared analysis was conducted to compare for significance between the results found by Nixon in 1993 with this study.

Articles for this study were found using the internet search engine, Academic Search Premier. This database carried all articles from *Sports Illustrated* in full text format from 1979 – present day. The researcher conducted the search for articles relating to or stating “pain and injury” from the time frame January 1992 through December 2006.

The unit of analysis for the written material was each sentence within an article that pertained to pain and injury. Photo credits and captions were also coded if they specifically related to the pain and injury.

Two researchers coded the articles independently. An intercoder reliability of 84% was found using Cohen's kappa for reliability (Babbie, 2005). Each coder used the thematic categories and subcategories set forth in the Nixon study (1993).

Sample

Sports Illustrated is the largest circulated sport media magazine in America today (Magazine Publishers of America, 2006). The magazine has over 3 million subscribers and is read weekly by 23 million adults, 18 million of which are men. These 18 million men comprise almost 19% of the entire male population of the United States (Time Warner, 2007). The magazine is published 56 times per year. There have been five spin-offs from the original magazine of 1954: *Sports Illustrated for Kids* (Circulation 950,000); *SI.com* (Sport version of CNN); *Sports Illustrated Annuals* (Almanacs, produced yearly since 1991); *Sports Illustrated for Women* (Ceased publication in 2002); and *Sports Illustrated on Campus* (Ceased publication in 2005) (Time Warner, 2007). The magazine is comprised of sporting news, commentaries, statistics and a yearly swimsuit issue.

Instrumentation

The researchers read each article based on pain and injury for the years stated. The researchers then coded each sentence, which related to pain and injury, within the article. Each sentence was coded and placed into one of six major thematic categories as well as one of 19 thematic subcategories (Nixon, 1993). The major thematic categories were: Structural Role Constraints (A), Structural Inducements and Support (B), Cultural Values(C), Institutional Rationalization (D), Socialization of Athletes(E), and Accepting Risks(F) (Nixon, 1993). An additional category was created by the researchers because of failure to fulfill any other categories descriptions. This category was entitled Protect Body (G). The thematic categories are detailed in Appendix B of this document.

From the above six original thematic categories, nineteen subcategories were created. For structural role constraints these included: disposable, accuse, push body, and team. The

second thematic category, structural inducements and support included: opportunities, recognized part, and support. Cultural values had no subcategories. Institutional rationalization included: part of the game, minimize, rely medical, and subordinate. The fifth category, socialization of athletes, included: character, competitive, loving sport, confidence, and trust doctors. Finally, the category accept risks included: play hurt, blame self, and taking risks (Nixon, 1993). A complete description of these subcategories is available in Appendix B.

Each unit was also coded based on content sources. There were seven possible descriptions of the source in the sentences of the articles. These included: the athlete themselves, the journalists, retired athletes, doctors and athletic trainers, coaches, team management, and other. The other was included because of the original study's research where a court judge remarked on the pain and injury to a player (Nixon, 1993). It remained in this study because of its use for a massage therapist as well as a director from the NFL Players Association.

Data Collection

The articles, from 1992 – 2006, to be reviewed were printed off the internet database and reviewed individually by the researchers. Each researcher coded each sentence based on the criteria outlined above, thematic categories and subcategories, as well as, the content sources. The researchers then met to compare coding and check for inter-coding reliability. The codes were then entered into a Microsoft Excel spreadsheet for analysis.

Analysis

Statistics were calculated in order to determine the answers to the research questions. Descriptive statistics were calculated to describe each category. A Chi-squared (X^2) test for

significance was calculated to determine if there was a significant difference between the 1993 categories and the 2006 categories.

CHAPTER IV

RESULTS

The years 1992-2006 produced sixty (n=60) *Sport Illustrated* articles identified by the search engine containing the keywords pain and injury. From these sixty articles, thirty-seven (n=37) articles were related to male athletes at the intercollegiate or professional level. Twenty-three articles were eliminated prior to coding, ten (n=10) because they related to females, eight (n=8) because they discussed emotional rather than physical pain, five (n=5) because they did not relate to male athletes. An example of these five articles included an article about the race horse Barbaro.

From the thirty-seven (n=37) articles reviewed, 187 units were identified and coded. This averaged five units per article. Content units were coded into one of seven following categories; structural role constraints, structural inducements and support, cultural values, institutional rationalization, socialization of athletes, accept risk and self-protection. The sources of content were identified and coded into one the following categories; athletes, retired athletes, journalists, doctors and trainers, coaches, management and others.

Each of the six thematic categories described by Nixon (1993) appeared at least once in the 187 units. Of the total units, structural role constraints represented 14% (n=26), structural inducements and support represented 2.1% (n=4), cultural values represented .5% (n=1), institutional rationalization represented 5.3% (n=10), socialization of athletes represented 30.4% (n=57), accept risks represented 39.1% (n=73) and self-protection represented 8.6% (n=16) of the 187.

Table 4.1 -- Overall Thematic Categories

Thematic Categories	Number (n)	Percentage (%)
Structural Role Constraints (A)	26	14.0%
Structural Inducements and Support (B)	4	2.1%
Cultural Values (C)	1	0.5%
Institutional Rationalization (D)	10	5.3%
Socialization of Athletes (E)	57	30.4%
Accept Risks (F)	73	39.1%
Self-Protect (G)	16	8.6%

Structural Role Constraints included the expectations and demands, perceptions, and implications that athletes associated with their roles or role performances as athletes. (Nixon, 1993). This thematic category included four subcategories in which each of the units were placed. These included: Disposable 2.7% (n=5), Accuse 2.7% (n=5), Push Body 4.3% (n=8) and Team 4.3% (n=8). The main concept behind these subcategories was for athletes to push through the pain and injury because of their job role. An additional concept in this category was that athletes worry that they may loose their job if they sit out or fear they are letting their team down (Nixon, 1993).

Table 4.2 – Structural Role Constraints Summary

Structural Role Constraints (A)	Number (n)	Percentage (%)
Disposable (A1)	5	2.7%
Accuse (A2)	5	2.7%
Push Body (A3)	8	4.3%
Team (A4)	8	4.3%

Structural Inducements and Support were described as the rewards, prospects for rewards, and encouragement that make the role of athlete appealing (Nixon, 1993). This category implied that athletes must continue to play in order to continue to receive material rewards and future financial security (Nixon, 1993). Subcategories within this thematic category included: Opportunities .5% (n=1), Recognized Part .5% (n=1), and Support 1.1% (n=2). A rarity within this category was Support; this is the case where the coach actually cared about the health of the injured athlete (Nixon, 1993).

Table 4.3 – Structural Inducements and Support Summary

Structural Inducements and Support (B)	Number (n)	Percentage (%)
Opportunities (B1)	1	0.5%
Recognized Part (B2)	1	0.5%
Support (B3)	2	1.1%

Cultural Values was a broad thematic category because it did not pertain to a specific individual but rather to a general cultural perspective. This category included references to the importance of good character, tolerance to pain and proving masculinity (Nixon, 1993). Cultural values did not have any subcategories and was noted as having .5% (n=1) of the total 187 units measured.

Table 4.4 – Cultural Values Summary

Cultural Values (C)	Number (n)	Percentage (%)
Cultural Values (C)	1	0.5%

Institutional Rationalization was described by Nixon (1993) as reasons given by management of a sport in order to minimize or justify the risks of injury within the sport. Management tended to draw attention away from the risks of sport injury within this category (Nixon, 1993). Four subcategories were imbedded within this thematic category. These included: Part of the Game .5% (n=1), Minimize 1.1% (n=2), Rely Medical 2.1% (n=4), and finally Subordinate 1.6% (n=3). Through these subcategories, management was enabling the minimization of the injuries and pain because it was better for them to have the athlete play and generate revenue (Nixon, 1993).

Table 4.5 – Institutional Rationalization Summary

Institutional Rationalization (D)	Number (n)	Percentage (%)
Part of Game (D1)	1	0.5%
Minimize (D2)	2	1.1%
Rely Medical (D3)	4	2.1%
Subordinate (D4)	3	1.6%

The Socialization of Athletes referred to the concept that athletes, “learn and internalize expected and desired behavior, roles, beliefs, and feelings to develop self-conceptions,” (Nixon, 1993, 187). This category represented the socializing effect that may occur from formal and informal socializing agents such as coaches, doctors, trainers, teammates and the mass media. These messages convey that there is something to prove to be an athlete and to be a man. The five subcategories included; Character 9.6% (n=18), Competitive 6.4% (n=12), Loving Sport 2.1% (n=4), Confidence 3.2% (n=6), and Trust Doctors 9.1% (n=17). Content items within this category related to the individual athletes and how they dealt with pain and injuries.

Table 4.6 – Socialization of Athletes Summary

Socialization of Athletes (E)	Number (n)	Percentage (%)
Character (E1)	18	9.6%
Competitive (E2)	12	6.4%
Loving Sport (E3)	4	2.1%
Confidence (E4)	6	3.2%
Trust Doctors (E5)	17	9.1%

The last thematic category was Accept Risks. This category referred to athletes understanding the risks and challenges that come with playing hurt, but feel they must play in order to continue as athletes. These athletes do not blame management for pushing them, but rather make their own decisions about their health and wellness (Nixon, 1993). Three subcategories are acknowledged within this category. Play Hurt 25.7% (n=48), Blame Self 1.6% (n=3), and Taking Risks 11.8% (n=22) described an athlete who will push through pain and injury as long as they can. They understand the dangers, but continue to participate as always (Nixon, 1993).

Table 4.7 – Accept Risks Summary

Accept Risks (F)	Number (n)	Percentage (%)
Play Hurt (F1)	48	25.7%
Blame Self (F2)	3	1.6%
Taking Risks (F3)	22	11.8%

Within the articles dated from 1992-2006, the researcher noticed some items that did not fit into existing categories. Several athletes indicated that they would no longer push themselves to the limit because it was part of the game. Because of these units, the

researcher added a new thematic category labeled as “Self- Protection.” Self-Protection did not have any subcategories and was derived from athlete’s statements. These athletes stated that to protect their bodies and be able to play at the best of their abilities in later years they would protect themselves now by not participating. Self-Protection comprised 8.6% (n=16) of the total 187 units that were coded.

Table 4.8 – Self-Protection Summary

Self-Protection (G)	Number (n)	Percentage (%)
Self-Protection (G)	16	8.6%

Detailed descriptions of each of the thematic categories, as well as, the subcategories, as stated from Nixon’s 1993 study, are available in Appendix B of this document.

Sources of Content

The sources of content for the 187 units included seven categories; journalist, athletes, retired athletes, doctors and trainers, coaches, management and others. Journalists were the most frequent source of content comprising 72.2% (n=135) of the 187 units measured. Athletes were the second most frequent source of content comprising 19.3% (n=36). Doctors and athletic trainers commentaries were the third source of content with 3.7% (n=7). Coaches, head or assistants, were the fourth most frequent source of content comprising 2.7% (n=5). The “Other” category was used for 1.6% (n=3) of the content sources. Management was a source for .5% (n=1) of the total amount of units for analysis. Finally, retired athletes was not a source in any of the 187 sentences for measure within this study 0% (n=0).

Table 4.9 – Content Sources Summary

Content Sources	Number (n)	Percentage (%)
Athlete (A)	36	19.3%
Journalist (J)	135	72.2%
Retired Athlete (RA)	0	0.0%
Doctors and Athletic Trainers (DT)	7	3.7%
Coaches (C)	5	2.7%
Management (M)	1	0.5%
Other (O)	3	1.6%

Finally, Pearson’s chi-squared tests were performed to test for statistical significance between the Nixon results from 1993 and the results from this study. Five of the original thematic categories were compared. Cultural Values (C) were not compared due to the small numbers for chi-squared comparison (Shavelson, 1988). The new category of Self-Protection (G) was not tested due to the lack of any prior data for this category. These tests revealed statistical significance in three of the five thematic categories when compared with the original research. A statistical significance was noted as a probability value (level of significance) less than .05. This was the current standard value for significance as noted by Babbie (Babbie, 2005).

Results indicated that there has been a significant change in the categories of Structural Inducements and Support (B), Institutional Rationalization (D) and Accept Risks (F). According to the chi-squared, there was not statistical significance between the 1993 and present study in the categories of Structural Role Constraints (A) and Socialization of Athletes (E). Table 4.10 describes the percentages for each category for the 1993 study as

well as the present day study. The table also described the level of significance when the percentages were compared.

Table 4.10 – Study Percentages and Significance Summary

Thematic Categories	Nixon Percentage (%)	Present Percentage (%)	Level of Significance (X²)
Structural Role Constraints (A)	15.6%	14.0%	0.740
Structural Inducements and Support (B)	8.2%	2.1%	0.043*
Cultural Values (C)	4.1%	0.5%	n/a
Institutional Rationalization (D)	21.8%	5.3%	< .001*
Socialization of Athletes (E)	28.0%	30.4%	0.650
Accept Risks (F)	22.2%	39.1%	< .001*
Self-Protection (G)	n/a	8.6%	n/a
<i>*Significant at p-value = ≤ .05</i>			

CHAPTER V

CONCLUSIONS

The primary purpose of this study was to examine the mediated messages about pain and injury as conveyed by the most popular sports magazine *Sports Illustrated* from 1992 – 2006 (Magazine Publishers of America, 2006). The secondary purpose of this study is to compare the *Sports Illustrated* content analysis results with the content analysis of *Sports Illustrated* completed by Nixon in 1992 (Nixon, 1993). A content analysis was completed which categorized messages into one of seven categories; Structural Role Constraints, Structural Inducements and Support, Cultural Values, Institutional Rationalization, Socialization of Athletes, Accept Risks and Self-Protection. The content sources were also identified and placed into one of the following categories; athletes, retired athletes, journalists, coaches, doctors and trainers, management or others. This chapter is organized into the following sections with subsections noted: summary of the findings and interpretation, limitations, implications, recommendations for future research and conclusion.

Summary of Findings and Interpretation

The summary of findings is organized according to the research hypothesis presented in Chapter 1. As discussed in Chapter 2, one of the most important identity roles is that of the socialization of athletes through society and the mass media. Based on the Social Learning Theory and Goffman's Framing Theory, research findings of Nixon (1993) the following hypothesis was stated:

H1: *The thematic categories listed below will be ranked in the same order based on frequency as the thematic categories identified by Nixon in Sports Illustrated articles for the years 1969-1991?*

1. Socialization of Athletes (28.0%)
2. Accept Risk (22.2%)
3. Institutional Rationalization (21.8%)
4. Structural Role Constraints (15.6%)
5. Structural Inducements and Support (8.2%)
6. Cultural Values (4.1%)

The Nixon study of 1993 indicated that the thematic category of Socialization of the Athlete was most frequent in *Sports Illustrated* articles discussing pain and injury. The Nixon study had Accepting Risk and Pain as the second most frequent category about, and third was the Institutional Rationalization. The fourth most frequent thematic category was Structural Role Constraints followed by Structural Inducements and Support. Finally, the category of Cultural Values was the least frequent in the Nixon article of 1993.

The current study showed a change in the rankings of four of the six thematic categories. Results, therefore, did not support the hypothesis that there would be no change in the thematic category rankings.

The thematic category rankings for this study were as follows:

1. Accept Risks (39.1%)
2. Socialization of Athletes (30.4%)
3. Structural Role Constraints (14.0%)
4. Institutional Rationalization (5.3%)

5. Structural Inducements and Support (2.1%)

6. Cultural Values (0.5%)

In this study the ranking of the two thematic categories that accounted for nearly 70% of comments were reversed in rank order when compared with the Nixon study of 1993. The role of accepting risks increased in frequency to take over number one rank. Comments on the socialization of athletes increased in frequency but this category dropped to second in the rankings. Structural Role Constraints moved up one position in the thematic category rankings. Institutional Rationalization moved down one position in the thematic category rankings. Even though the frequency of comments related to structural inducements and support decreased, the ranking of this category remained the same. The thematic category of Cultural Values also decreased in frequency of comments but remained in sixth place in the rankings.

H2: There will be no significant differences in the proportion of items found in any of the thematic categories listed below compared to the proportion of items in the 1969-1991 Sports Illustrated article analysis.

- A. Structural Role Constraints
- B. Structural Inducements and Support
- C. Cultural Values
- D. Institutional Rationalization
- E. Socialization of Athletes
- F. Accept Risk

The results of this study showed a significant change in three out of six thematic categories. Therefore, the results did not support the hypothesis that there would be no

significant change. Based on a chi-squared analysis of each thematic category there was a significant change in the percentage of comments in the categories of Structural Inducements and Support, Institutional Rationalization, and Accept Risks.

The thematic category of Structural Inducements and Support showed a significant change since the Nixon 1993 study. There was a 6.1% decrease in the frequency of comments in this category. The chi-squared test for statistical significance illustrated in Table 4.10 shows a statistically significant change of $p = \leq .043$. Notable information in this category were two units categorized as support from a coach to not play hurt. In an article entitled, "Spartan Life," the head coach of Michigan State University's football team was quoted as saying, "But it doesn't do any good to play guys hurt if they can't perform. This game is too intense to play hurt," (Layden, 1997, 3).

The thematic category of Institutional Rationalization showed a significant change since the Nixon 1993 study. There was a 16.5% decrease in the frequency of comments in this category. The chi-squared test for statistical significance illustrated in Table 4.10 shows a statistically significant change of $p = \leq .001$.

The thematic category of Accept Risks also showed a significant change since the Nixon 1993 study. There was a 16.9% increase in the frequency of comments related to taking risks, playing hurt and the athlete blaming themselves. The chi-squared test for statistical significance illustrated in Table 4.10 shows a statistically significant change of $p = \leq .001$.

The thematic category of Self-Protection was added by the researcher to capture the comments of players who indicated they would not play if they were injured. Sixteen (8.6%) of the 187 units were placed into this category. Self-Protection described the athletes who

will sit out and allow an injury to heal, rather than increasing the chances of re-injury. In an article from 1998, Terrell Brandon of the Milwaukee Bucks’ was quoted as saying, “he promised himself that he wouldn’t return until it [sprained left ankle] was fully healed” (MacMullan, 1998). The article went on to state that, “it’s clear that there are more reasons than ever for players to be reluctant about making hasty returns” (MacMullan, 1998). Many athletes have seen teammates end a career because they were never fully healed from an injury when they returned to play.

Given that over 91% (171/187) of the source material came from athletes and journalists, comments are made about where they fall within the thematic categories. The theme accept risks was the most common theme used by journalists and athletes at 35% (67/187). Socialization of athletes followed next with 27% (51/187). These trends show journalists more commonly talking about athletes accepting risks. Athletes are still following in Nixon’s’ conclusions about learning how to socialize and “internalize expected and desired behavior” (Nixon, 1993, 187), as demonstrated above. Structural role constraints was prominent among journalist content sources. They alone spoke of this category 19/187 (10%) of units coded. A summary of this data is available in Table 5.1.

Table 5.1 -- Content Sources Coding Summary

Content Source	Thematic Category							Totals
	A	B	C	D	E	F	G	
Athletes	6	1	1	5	12	7	4	36
Journalists	19	3	0	2	39	60	12	135
Retired Athlete	0	0	0	0	0	0	0	0
Doctors and Athletic Trainers	0	0	0	2	4	1	0	7
Coaches	2	0	0	0	0	2	1	5
Management	0	0	0	0	1	0	0	1
Other	0	0	0	2	0	1	0	3
Totals	27	4	1	11	56	71	17	187

Limitations of the Study

The limitations of the current study were primarily methodological concerns. First, even though this study used the same thematic categories as the Nixon 1993 study there may have been differences in coder categorization of words, phrases and sentences. Second, this study only used *Sports Illustrated* articles as a content source. Therefore, the results cannot be generalized to other print media or mass media in general. Finally, this study was limited to an examination of a small number of articles written about male intercollegiate and professional athletes so the results cannot be generalized to other males.

Implications of the Study

Overall the results of this study suggested that print media messages still encourage the normalization of pain and injury in sport. The two most common themes identified were still “Accepting the Risks and Pain” and “Socialization of Athletes.” This message identified through content analysis perpetuates the common practice of minimizing injury and pain.

The “Accepting the Risks and Pain” thematic category showed the greatest increase in frequency since the Nixon study. It appeared that intercollegiate and professional male athletes recognized the risk for physical injury and pain but felt that the risk was an inevitable part of the game. They also did not blame others for the risk but accepted this risk as a personal responsibility. Coaches and management still view the acceptance of risk as a measure of “manhood” and proving oneself to the team and the organization.

The “Socialization of Athletes” into the values, expectations and norms of society and sport were apparent in every sport article examined. Men were encouraged not to back down

from anyone or anything because if they did they would appear weak and weakness was not a masculine characteristic.

The messages of “Structural Role Constraints” was slightly less (1.6%) than in the Nixon 1993 study. However, the concerns about not letting the team down and losing one’s job or starting position were still strong motivators for playing hurt.

The messages related to “Structural Inducements and Support” and “Cultural Values” both decreased in this study but still appeared among the messages conveyed. Since Structural Inducements includes desire to be a part of the team and hear the cheers of the crowd, this change may reflect a more individual or ego-centric view by the athlete. Even though being part of the team is important perhaps the individual athlete is more focused on his performance more than on the performance of the team as a whole. Cultural values reflecting the view that it is worst to be a quitter than a loser decreased in this study but were too infrequent to test for any significant difference.

The new category of “Self-Protection” demonstrated a slight change from past messages about playing with injury or pain. In this study, there were 16 messages that indicated that a player should not play while injured. Most of these messages came directly from athletes and on one occasion from a professional coach.

In terms of content sources, over 70% of the articles coded from 1993-2006 for were attributed to journalists. This means that journalists can play a powerful role in conveying messages about pain and injury to young athletes and the public in general.

Future Research

The ideas presented in this study provide a basis for further exploration. This study was a continuation of the Nixon study of 1993, *Accepting the Risks of Pain and Injury in*

Sport; Mediated Cultural Influences on Playing Hurt. The results of this study help us to understand the messages about pain and injury conveyed by the most popular sport magazine, *Sports Illustrated* about intercollegiate and professional male athletes. Future research could examine the messages conveyed about pain and injury by other forms of mass media, different populations, and different levels of sports. There has been very limited research about this topic related to females and also examining other forms of mass media.

Researchers could examine which factors contribute more to the athlete's acceptance of playing with pain and injury? What are the roles of external factors (coaches, parents, doctors and athletic trainers, mass media) compared to internal factors (self-esteem, athletic identity or self-concept). What is the impact of sport role-models? Are young athletes following in the footsteps of their heroes and becoming athletes who will play hurt, accept the risks and blame themselves for any problems that may arise from the competition? Nixon suggests an examination of the judicial and legal pressures on the athlete (Nixon, 1993).

Conclusions

The risks of pain and injuries in high-level sports will never disappear because many sports are designed to inflict pain and to encourage athletes to play aggressively to be successful. Despite of this reality and the fact that society's expectations of athletes has not changed, athletes, coaches and management may have to take the lead in putting the health and safety of athletes as a top priority. In the long term, it is very short sighted for the player, coach or management to risk additional injury, permanent damage, and possible season ending complications for the sake of winning one game. If players, coaches and management

could keep long-term success in mind, then an injured player would be encouraged to not play hurt and to come back even to make a greater contribution to the team. This change in behavior would then provide a new model for print media.

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APPENDICIES

Appendix A

Sports Illustrated Articles (by Date of Publication)

- Newman, B. (1992). Smash hits. *Sports Illustrated*, 77(14), Oct-5.
- Johnson, W. O. (1992). La belle Parisien. *Sports Illustrated*, 77(24), Dec-7.
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Appendix B

Reproduced from: Nixon, H. L. (1993). Accepting the risks of pain and injury in sport; mediated cultural influences on playing hurt. *Sociology of Sport Journal*, 10(2), 183-196.

Sample of Major and Illustrative Content Items

Note: The primary reason for the order of items in a list for a category is their location in the chronology of the literature search, with earlier items generally appearing before later ones. The articles that were the basis of these items are listed in Appendix A. The samples of items are meant to help define themes and, as samples, are representative of items in a thematic category but do not include all items in the category or subcategory.

Summary of Thematic Categories and Subcategories

A. Structural Role Constraints

A1. Disposable. Fearful of losing my job if I sit out.

A2. Accuse. Coaches think players are dogging it when they recover slowly from injuries; coaches make disabled players feel guilty; slow slide into “gray area” peopled by hypochondriacs, malingerers, and “non-risk takers”; faker; low pain threshold.

A3. Push Body. Burden always on player to play; “We don’t want anybody to play injured, But play hurt, yes, you have to.”

A4. Team. Letting teammates down; detached teammates; wanting to impress management with rehabilitation progress to reassure them about investment.

B. Structural Inducements and Support

B1. Opportunities. Worried that this injury will affect my pro chances; need to grab the moment.

B2. Recognized Part. I don’t feel like part of the team anymore; loving the cheers of the crowd.

B3. Support. Rare case of a head coach who cared about an injured player; not listening to loved ones who tell you to quit.

C. Cultural Values. It is worse to feel like a quitter than a loser; men should not be afraid of injury; a reputation for toughness.

D. Institutional Rationalization

D1. Part of Game. Athletes have to play with injuries and in pain, it's the nature of their occupation; football makes injury unavoidable; players are coaches to inflict injury.

D2. Minimize. You cannot worry about injuries or players going down, it's part of the game; ignoring or reinterpreting injury statistics.

D3. Rely Medical. Reassured by the doctor that my injury wouldn't get worse; you learn to trust doctors and sometimes you shouldn't.

D4. Subordinate. They let me fight with my blind eye "as long as it served someone's purposes"; the doctor versus athlete dilemma; the health of the player usually is subordinated to the teams interests, when the two conflict; artificial turf good for the economics of the sport but causes injuries and may prematurely end their careers.

E. Socialization of the Athletes

E1. Character. An acknowledged he-man among men, impervious to pain and the sight of his own blood; optimistic, proud, hardworking, and patient during a long rehabilitation; trying to come back so that there would not be any questions in my mind; you can't keep a good man down.

E2. Competitive. Feeling sick to my stomach because I have to sit on the sideline; athletes are so competitive and intent on playing.

E3. Loving Sport. Doing what I enjoyed; I knew I would miss it if I never could play again.

E4. Confidence. I was the guy who was invincible, who never could get hurt and then I was humbled when I got injured; I thought I had conditioned myself against injury; my pain tolerance is high, I feel I can conquer anything.

E5. Trust Doctors. Feeling as though it is up to the doctors to make the decisions about playing; alleging inept medical treatment; "I'm the most doctor-tested man alive."

F. Accept Risks

F1. Play Hurt. Pain is part of football, I seem to enjoy it; athletes live with pain; giving into the pressure to play hurt and in pain; injuries as an occupational hazard and putting up with the little nagging injuries that come with aging.

F2. Blame Self. Not using injury or pain as an excuse, I made the decision to play, so you could blame me; I'm not blaming the manager for overwork.

F3. Taking Risks. It is worth the risk of not being able to walk again? "It sure is....Playing college is the best thing in the world. No price is too great"; the "no pain, no gain kid"; athletes want to compete whatever the cost --- including risk to their lives.