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What Factors Affect an Athlete's Injury Reporting Decisions

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What Factors Affect an Athlete's Injury Reporting Decisions

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Abstract

The purpose of this research was to find out what factors impact or have an influence on the decisions and coping behaviors athletes after they have sustained an athletic injury. Semi-structured interviews with 11 SJFC student-athletes explored their thought processes and behaviors during the process of dealing with injury. Time loss factors play a critical role in their thinking about reporting and dealing with injuries. Eligibility concerns and role on the team also shape their reporting and return to play. Throughout the entire process, athletes discussed their identity changes when coping with injuries.

What Factors Affect an Athlete's Injury Reporting Decisions

As athletes, sports become a lifestyle. Many athletes find their social lives and academic lives revolving around their sport. Between balancing classes, homework, creating a college social life, and their athletic schedules, collegiate athletes have all of the same pressures on them as every other student, with an added pressure that not everyone goes through. This is part of the reason why a catastrophic event within an athlete's life, such as an athletic injury, can be particularly devastating.

When athletes sustain an injury their whole lifestyle experiences a major shift because the thing their lives have been revolving around has become threatened. This is due to the fact that most athletes place a high importance on athletics within their lives, and when they get injured there are important decisions that need to be made. The athletes face consequences regardless of the decision. If the athlete reports they would be held out of practice or place and if they do not report they could potentially be injured further or could not play as well as they are expected to due to injury. The unique thing about an athletics injury that is different than other negative events in a college student's life is that it touches every part of your life. Sometimes injuries sustained within athletics will also have an impact on a student's academic life as well as their social life. Many times athletes are aware of the potential impacts an injury will have on their life and for this reason, in conjunction with other factors, the way athletes respond to an injury will vary.

The way athletes respond to injury can also be dictated by their level of commitment to a sport lifestyle. If an athlete is highly committed or feels that their whole world is that sport, and now they are forced to watch from the sidelines with an injury, that is a hard thing for many athletes to deal with. Injuries are also something that are harder

for some athletes to deal with than others. It is important to understand that while no athlete is the same, there are certain factors that will consistently show up as having an impact on injury reporting and coping. It is important to further understand these different recurring factors because the better they are understood the better treatments there can be. Furthermore, more strategies can come from the different influences within an athlete's life to combat the potentially detrimental decisions athletes make while trying to cope with their injury reality and decisions. These different influences can be their teammates, coaches, parents, and even themselves. It also important for an athlete to understand the different reasons why they rationalize playing through an injury because it would give them the ability to work beyond the initial emotions or reaction and step back to make calm, self-aware decisions they feel are in their best interest.

Over the years, the number of athletes not reporting injuries has increased tremendously. Studies that have been conducted as recently as 2015 on athlete's have shown that nearly 40% of high school athletes and about 45-50% of college athletes are not reporting injuries (Kay, Welch & McLeod, 2015). While there are many different reasons why athletes are not reporting their injuries one of the most prominent is a fear of loss of playing time. Many athletes are not reporting their injuries for because they fear the repercussion of sitting out of practice or games (Bejar & Butryn, 2016). Especially at the college level, the fear of losing playing time is a huge concern because sports as seen as more of a "job" than a leisure activity and student athletes do not want to lose their "job" or their starting position (Hudson & Spradley, 2016). On top of that, most people that get to play a collegiate sport are very highly passionate about that sport. That passion is another reason why they do not want to sit. The commitment they have to their perspective sport is

so intense, that they feel there is no choice to miss a practice or game. It just simply cannot happen. Understanding the different factors that lead to athletes not reporting their injuries is important because the dynamic of sport is so intense, and coaches and organizations need to understand that the athlete's health should be more important than the sport itself.

Literature Review

Athlete Factors

There are several factors internal to the athlete that have an impact on how an athlete will respond to or cope with an injury. These internal factors are grouped in the category athlete factors because they are the different factors that make up each individual athlete, including their own thoughts and experiences that makes each one of them unique. This group also incorporates each athlete's background as well. Socioeconomic status (SES) is one background factor that could potentially have an impact on the mentality of each athlete when considering how to respond to a traumatic event such as an injury. A person's socioeconomic status encompasses their economic and social position in society in comparison to their peers and generally considers income, education, and occupation (Cralley, 2007). In the case of a student athlete, their SES is tied to their parents since their parents are the ones that support them growing up. Socioeconomic status influences the way athletes cognitively, emotionally, and behaviorally respond to an injury or other traumatic event (Bejar & Butryn, 2016).

Bejar & Butryn concluded in their study that athletes from low SES backgrounds have a higher probability of experiencing an exceptional amount of stress, attributed to their background, which may complicate how they cope with a negative event such as a

sport injury (2016). They pointed to a study conducted on African American athletes by Messner to try and explain one possible explanation for this additional stress. In this study, Messner found that a young male athlete from a lower-class background was more likely to see athletics as something that is vital to their ability to move up the social ladder and essential to supporting their families (1992). Many athletes from a low SES background lack the means to go to college and get noticed for their sport. Due to this fact, athletic scholarships for athletes from low SES backgrounds are valued significantly higher. Because of this increased perceived value of an athletic scholarship athletes from low SES backgrounds tend to be under much more pressure to obtain one of these scholarships. This added pressure only equates to an increased level of stress for these athletes because they feel so much is at stake whereas their upper-class counterparts tend to have more options so they do not necessarily put as much emphasis on athletics for their future (Bejar & Butryn, 2016).

Another factor that is important to understand each athlete's mentality is their family. It is important to understand an athletes' family situation when trying to understand their mentalities because each athlete can have different family situations that could affect how they perceive an event, such as an injury. Things such as a death in the family, or catastrophic injury or illness by a parent have been pointed to as additional sources of stress on student athletes (Bejar & Butryn, 2016). For example, in the interviews conducted by Bejar and Butryn some of the athletes they interviewed spoke to some of the additional stressors that can be put on an athlete from their family. These responses ranged in answers from parents separating or growing up in a single parent household to parents dealing with a severe surgery or illness (2016). It is also important to take a look at

how athletes feel a sense of obligation to their families. Athletes feel as if they need to live up to the expectations of their parents, and feel that they have an obligation to continue to play, even after an injury (Inigo, Podlog & Hall, 2015).

Parents can also pressure athletes in ways that are more influential when they are considering playing after an injury. Findings in the study by Kroshus, Garnett, Hawrilenko, Baugh, and Calzo showed that some athletes perceive pressure from their parents to continue playing after a head impact injury such as a concussion (2015). They also stated that “athletes who experience this pressure are less likely to intend to report symptoms of a concussion” (Kroshus, et al., 2015, p.73).

When considering the impact that an athletes’ family can have on their mental process when it comes to injuries and reporting habits, it is also important to look at how these pressures can affect an athlete after a sustained injury. These pressures can have a severe impact on an athlete’s commitment to their sport. Some parents are very supportive of their children but are more hands off and leave decisions like injuries up to them. Some parents, however, put substantial pressures on athletes to perform, and in some cases athletes feel a huge obligation to suit up and perform because of the values their parents have (Beaver, 2013). Inigo, Podlog, and Hall conducted a study to asses an athlete’s commitment to return to sport using the Sport Commitment Model (2015). Their interview results showed that a major force that pushed several of their participants to returning to play was a sense of obligation to continue playing after injury, mainly due to the effects of social constraints (Inigo, et al., 2015). Parent expectations were deemed a particularly prominent source of constraint (Inigo, et al., 2015). One participant in their study talked about how she felt compelled to continue playing after an injury due to her mother. She

stated how her parents continually reinforced the idea that they had a great desire to see her play sports (2015). Parents can have an impact on the mentality of an athlete when it comes to the athlete's commitment to their sport following a major injury. Due to this fact, is it conceivable that an athlete is strongly influenced by their parents and expectations when reporting, whether the injury is a major or minor.

In addition to the two previously mentioned factors, an athlete's psychology is another important piece that needs to be considered when trying to discover why they act the way they do when responding to an injury. Depending on unique athlete psychology, each will respond in a different way exhibiting a wide range of cognitive, emotional, and behavioral responses (Masten, Strazar, Zilavec, Tusak & Kandare, 2014). This psychological makeup will play a role in forming their perceptions and attitudes.

"Attitude consists of two basic components: a belief that a particular behavior leads to a certain outcome and a person's evaluation of the outcome of that behavior" (Register, Guskiewicz, McLeod, Linnan & Mueller, 2013, p. 646). Register et al. found that individuals who have a positive perception about reporting concussions, and not just the actual injury itself, would be more likely to report their injury. This means that an athlete could know and believe that their injury is a serious one, but if they think they will face retribution or perceive some negative reaction from their teammates or coaches for reporting their injury they may still choose not to report their injury (Register, et al., 2013) Masten et al. (2014) found that "emotional disturbance due to sports injuries is more likely to occur when the athletes perceive their injuries to be severe" (p. 131). This means that when an athlete perceives their injury to be severe there is a higher chance that they are going to face a more severe and volatile emotional reaction. Sometimes athletes also delay disclosure until

their removal is less likely to affect game or practice or until the symptoms worsen and they can no longer ignore the injury (Asken et. al., 2016). Athletes don't want to miss games or even practice because all of the pressures they have to perform makes them feel that missing any sort of playing time is letting their team down. Reporting of an injury was negatively influenced by the fear of losing playing time, and letting others down (Kay, Welch & McLeod, 2015). No athlete wants to miss a practice or a game due to injury, and they especially don't want to let their coach or teammates down, which is why the time loss that can occur because of an injury is important to understand. These facts point to the importance of perceptions and attitudes when trying to determine why athletes think the way they do.

Most athletes attribute their continued commitment to their sport after a major injury to "love of the game" or "passion for the sport" (Inigo et al., 2015, p.149). This idea of "love of the game" is shown to have an influence on continued commitment behaviors after a severe injury. Given this, it is conceivable that an athlete who sustains an injury that is not considered "severe" could point to their "love of the game" as something that influenced their decision to not report and continue playing. In addition, Inigo et al. discussed that the desire to be the best and the self-affirmation of one's abilities were two of the reasons that emerged as novel sources of commitment to return to ones' sport following a severe injury (2015). Masten et al. conducted a study in which they observed different personality traits of athletes (2014). Some of the traits they studied were athletic identity, masculinity, and emotional lability (Masten, et al., 2014). Emotional lability has three different parts that comprise it: depression, inhibition, and irritability. Athletes that exhibit certain personality traits, such as shyness and frustration are more likely to see a situation as more stressful,

and because of that they are more vulnerable to stress than their athletic counterparts that do not necessarily exhibit the same traits (Masten, et al., 2014). Using this study they were able to predict different psychological responses to injuries based on the different personality traits of the athletes they studied

Level of knowledge is another piece of the mental process that impacts reporting behavior or injury perception. Level of knowledge would have to do with the amount of information an athlete has access to about their injury or injuries in general (Kroshus, et al, 2015). Hypothetically, if an athlete has sustained a concussion and they do not know what the symptoms of a concussion are, or they do not know how severe sustaining a concussion is, they could decide not to report anything due to ignorance of the topic alone. Concussions are injuries in which level of knowledge and education is especially important, because concussions are injuries that, many times, need to be self-reported (Kroshus et al, 2015). Previous studies have shown that if athletes and their parents are properly educated about concussions, it will increase the likelihood and the athlete self-reporting (Kay, Welch & McLeod, 2015). One of the main reasons concussions need to be self-reported is because symptoms are generally not visible to an untrained eye, except for severe cases with loss of consciousness (Hudson & Spradley, 2016). Some of these symptoms include, but are not limited to, confusion and dizziness (Kroshus et al., 2015). Even if there is a trained doctor or medical professional on the sideline of an athletic contest or practice, removal from play following a concussion is, to some extent, is the responsibility of the athlete to self-report (Kroshus et al., 2015). This shows the importance of knowledge and education, especially with an injury such as a concussion. If athletes had proper knowledge about the severity of

concussions, as well as what symptoms to look out for, it could increase the likelihood of self-reporting among athletes.

There are also other reasons why athletes choose not to report that also tie in to their level of knowledge and education on the topic, and are not just a lack of knowledge. Some athletes do not report because they do not think that their symptoms are serious enough to go receive medical attention or they are not aware of the negative impact a concussion could have on their health (Register et. al, 2013). Other athletes have been shown to delay the reporting of their symptoms or injury until their removal is not as likely to have a negative impact on the game or practice or until their symptoms persist until they can no longer be avoided (Asken, McCrea, Clugston, Snyder, Houck & Bauer, 2016). Athletes not reporting because they don't think their symptoms are severe enough for medical attention speaks to the ignorance factor and the lack of proper education. However, athletes not reporting or delaying reporting until their perceived negative impact on the game or practice is not as high speaks to a different mentality entirely. These actions have less to do with level of knowledge or lack of knowledge but more to do with the impact that a negative perception can have when an athlete is considering how to act (Hudson & Spradley, 2016). This means that if an athlete perceives an injury in a negative light they are more likely to struggle with the decision to report because there might be a lot of different influences effecting their decision. Negative perceptions can often confuse an athlete and result in an athlete struggling with reporting or not reporting an injury (Heshka & Lines, 2012).

Environmental Factors

Environmental factors also need to be considered when trying to determine why

athletes behave the way they do when it comes to injury reporting. Environmental factors have to do with the parameters within which an athlete operates on a daily basis. These include the people an athlete is surrounded by and influenced by, as well as the sport specific factors of their environment (Cranmer & Brann, 2015). For example, a football team has a much different atmosphere and established set of environmental attitudes than a soccer team would. Some of the people that would be included in an athlete's environment are their coaches, teammates, peers, fans, and trainers (Cranmer & Brann, 2015). The environment of a student athlete is important because when individuals experience a gap between their behaviors and attitudes and the attitudes and behaviors of their peers they can feel a sense of pressure to change their behavior in order to follow the social norms and obtain social approval (Kroshus et al., 2015).

The study by Kroshus, Garnett, Hawrilenko, Baugh, and Calzo found that in the previous season, around one in every four athletes in their sample had experienced pressure from a teammate, coach, parent, or fan to continue playing after a head impact (2015). Pressure is defined as an internal feeling of stress in response to external demands (Kroshus et al., 2015). These outside pressures from peers or authority figures who are held in high esteem, such as teammates or coaches, certainly could have an impact on an athlete's attitude toward reporting an injury he or she might have sustained. This was later confirmed in a study by Kay et al., where they concluded that a coach's attitude or behavior can be a force in encouraging their athletes to report their injuries (2015). They also concluded that these behaviors can also serve as a deterrent for their athletes against reporting (2015). If a coach is pressuring an athlete to play through an injury, or if they are being ridiculed by their teammates, an athlete is more likely to keep quiet about the injury

(Kay, Welch & McLeod, 2015). This means that depending on the actions by a respective coach, his or her attitudes could not only help create an atmosphere where their athletes are responsible and self-report, but also as something that works in the opposite manner and creates a culture of hiding injuries in order to continue playing.

Coaches especially play a vital role in affecting an athlete's attitude. Athletes learn early on that to be an accepted part of a team they have to play through anything and not let the team down (Beaver, 2013). There has been a growing movement of trying to change the role coaches play in not only giving concussion information to athletes but also in trying to create a culture of safety with regards to concussions (Kroshus et al., 2015). Another way in which coaches have an impact on the attitudes towards injuries on their team is through their own adoption, or lack of adoption, of injury prevention programs (Norcross, Johnson, Bovbjerg, Koester, & Hoffman, 2015). If a coach has a bad attitude towards injuries or towards preventative practice, then they are more likely not to adopt an Injury Prevention Program (IPP) (Narcross et. al., 2015).

Another environmental factor that has been found to have an impact on athlete perceptions of injury is the idea of a sport ethic. This has been found to be a popularly accepted reason why athletes continue to play through pain or injury (Madrigal, Robbins, Gill & Wurst, 2015). According to a previous study conducted by Hughes and Coakley, the sport ethic idea states that injuries are naturally part of sports and should be accepted as such. Athletes that play sports are generally encouraged to accept the injury and play through any pain they may have (1991). Within many sporting environments, regardless of sport, there is a common attitude that injuries should not stop an athlete from playing. This ethic encourages the idea that an athlete that is truly committed to their sport, and team,

should be willing to do whatever needs to be done in order to continue playing, including not reporting injuries (Hughes & Coakley, 1991). This speaks to the fact that a prevailing idea or attitude about injuries in sports could have an impact on how the athletes themselves perceive an injury should they get one. This idea also relates to the “shake it off” mentality. “The shake it off mentality which has dominated sports for much of their existence was and still is an important part of the sport culture, where toughness, aggression, and bravery are most valued” (Beaver, 2013, p.336). The pressures from coaches, along with the idea of sport ethic begin to explain some reasons why athletes continue to play through injury. While these environmental pressures have been shown in previous studies to have an impact on reporting trends they are only one piece of a very complex puzzle.

Injury Factors

When thinking about an athlete’s response to injury and their tendency to report or not report, it is important to look at the actual injury. “Actual injury occurs as a result of some proximate cause or inciting event based on controllable risks inherent in sport training and competition and the specific risk of the athlete” (Wiese, 2010, p. 105). The actual injury could likely be a factor that influences athletes. This involves the severity of the injury as well as the specific injury itself. It was found that more severe injuries tend to influence athlete decisions more than less severe injuries (Beaver, 2013). This means that the more severe an injury is, the more an athlete struggles with a decision about reporting the injury because they do not want to face missing playing time or other factors associated with missing a game or practice. This could include being shunned by teammates or ignored by coaches. If an injury tends to be less severe, the athlete is less likely to report

the injury because they don't think it is a problem (Beaver, 2013). The actual injury can be a very influential factor in an athlete's decision to report or not report their injury.

Another factor of influence is reporting protocols. The reporting protocols for injury is not always as crucial as it should be. Reporting protocols is often not enforced or taught by coaches or trainers and it is therefore up to the athlete to report their injury. Reporting protocols is also important because if an athlete does not know the procedure for reporting an injury within the school or team than they could just hide it due to the fact that they do not know any better. Diagnosis of injury is based on the presence of signs and symptoms, which are self-reported by the athlete and therefore injuries are often not reported because athletes don't see a need for it (Kay, Welch & McLeod, 2015).

Attitudes and social constructs may play a role in injury reporting during practice and games (Kay, Welch & McLeod, 2015). In other words, the attitude an athlete has toward their injury or sport as well as the culture they were brought up in can have an effect on their reporting of an injury. It is believed that an athlete's attitudes toward the actual injury effect their attitudes toward reporting the injury, as well as the culture the athlete was brought up in. Perhaps the most potential help could be in a cultural change or an attitude change from a standard of ignoring the issue to a new standard of identification, awareness and effective response (Hudson & Spradley, 2016). There needs to be a change in reporting protocol and in the way that athletes report. This means that athletes need to start becoming aware of their injuries and the extent of their injuries instead of just ignoring them and continuing to play through injury.

The diagnostics of injury are an important concept to look at when considering an athlete's decision to report an injury. One of the main problems with diagnosing injury is

that there are varying definitions and parameters for defining many injuries and therefore the diagnostics and the return to play protocols vary greatly (Hudson & Spradley, 2016). This means that often times injuries are hard to nail down and some physicians might not diagnose an injury right away. Due to this, athletes might not receive a diagnosis for an injury and might think they are perfectly fine to return to play, when this isn't the case. There is also a concern that medical professionals believe that if an athlete showed no symptoms of injury then they had nothing to worry about, which is also not the case (Beaver, 2013). An athlete might feel fine but could have suffered some kind of injury, which if not treated right away may result in long term consequences (Beaver, 2013). Along with this, there is also a problem with coaches and trainers having difficulty recognizing the symptoms of an injury and its seriousness, especially during a game (Register et. al., 2013). Diagnosing an injury can be hard to do sometimes and may cause an athlete to believe they have nothing to worry about, when in reality this is not the case.

Previous literature has stated that athletes have multiple things they consider, consciously or subconsciously, that have an impact on their reporting of injuries or choice to remain silent. Existing literature has explored environmental factors, athlete factors, and injury factors that all contribute to this pattern of behavior. The environmental factors can be described as the parameters within which an athlete operates throughout their day, or in other words, different people or ideas that an athlete is exposed to within their sport that have an impact on the way they think. This includes sport specific related factors, coaches, trainers, family, fans, or teammates. Athlete factors can be described as all of the different things that make up the mental background of an athlete, including socioeconomic status, family, psychology, and prior level of knowledge. Injury factors have

to do with the things that have to do with the actual injuries that could have an impact on mental processes. The injury piece of this research includes include the specific injury or injury type, existing reporting protocols and knowledge of them, as well as severity of injury or the perceived impact of the time lost. Reiterate what is missing from this list which leads to a justification of why your study is happening.

This study sets out to discover what factors have an impact on a St. John Fisher College student athlete's thought process about and throughout an athletic injury. It is important to determine what factors have a potential influence on the mentality of each athlete when considering how to respond to a traumatic event such as an injury because if the factors that lead athletes toward not reporting are known than those factors can be controlled as much as possible in order to prevent such a trend of not reporting.

Method

General Research Descriptors

This research set out to discover what factors have an impact on St. John Fisher College student athlete's thought process about and throughout an injury, specifically what has an impact on reporting decisions and coping behaviors. The research attempted to achieve this through multiple semi-structured interviews with student athletes at the college. The data for the research was primary as the researcher conducted the interviews. Along with this the research is classified as qualitative research.

This research attempted to explain not only some of the reasons why athletes make the decision they do to report their injury or not, but also some of the reasons behind coping attitudes. The research falls primarily under explanatory classification as well as partly descriptive (Jones,2015). Explanatory research is typically used to explain why a

certain phenomenon happens the way it does. This is usually done by looking at casual relationships between the variables or factors (Jones, 2015). The research follows along a post-positivism path, which is the belief that true understanding is unattainable through strict measurement and observations due to limitations of the research such as researcher bias and their own personal values (Jones, 2015).

While these interviews helped provide a better understanding of some of the different reasons that influence a SJFC athlete during injury periods it did not fully and completely answer why all athletes cope with the decisions the way they do because it is limited to the athletes that respond and are interviewed.

Sample Selection

The participants of this research included St. John Fisher College athletes that have sustained some sort of injury throughout their collegiate athletic career that has kept them out for at least a week of practice or play. The study looked at both male and female athletes of multiple sports and class years. The participating athletes were selected after an initial email was sent to every athlete on a SJFC asking for volunteers (See Appendix A). A secondary invitation email was sent out on the behalf of the researcher by the Assistant Athletic Director and NCAA Athletic Compliance Director to all athletes at SJFC using the ACS Athletics Portal that every athlete at the college signs into prior to the school year.

There was a parameter within the email that requested that only respondents that have had some sort of athletic injury throughout their athletic career that forced them to miss at least a week of practice or play. The reason behind this parameter is the fact that there are over 500 student athletes at St. John Fisher College and without the parameter asking for an athlete that has sustained an "injury" was too general. By putting a time

length on it, the researcher was able to narrow down the number of potential respondents to do a realistic number of interviews. The study included participants from the football, women's basketball, men's basketball, women's lacrosse, cheerleading, softball, volleyball, women's track and field, and field hockey teams at St. John Fisher College.

The previous research has primarily focused on either high school or Division I athletes. This research looks to explore similar topics within a Division III setting. The research attempted to get a sample of participants of different sports, gender, and ages as to better understand the athlete mindset across sports rather than one specific subsection of athletes. The research only included those athletes on inter-scholastic competition roster, and not club sport rosters. This is due to the fact that inter-scholastic teams have trainers at their practices or games looking after the athletes whereas in the club setting there are no trainers and it is up to the athlete to tell the coach if something is wrong. The research also decided against club sports because with club sports there is a different emphasis than with inter-scholastic sport. Club sport focuses more on participation and just having the opportunity to play. Inter-scholastic sport on the other hand places a higher emphasis on winning and being the best. Due to different ideologies between the two different levels of sport there could be different reasons why club athletes and inter-scholastic athletes choose to cope or report the way they do.

Variable Operationalization

This research collected data on whether athletes at St. John Fisher College have hidden or played through injury and what factors influenced their decision to do this. This research also collected data on some of the different thoughts, emotions, pressures, and experiences these athletes face during their injury period. The independent variables in

this research include each different group of factors that is being discussed, while the dependent variable is the decision to report the injury or not as well as coping behaviors.

The different independent factors will be grouped into categories which are athlete factors, environmental factors, and injury factors. Athlete factors are factors that are internal to each athlete. This has to do with anything within an athlete's background as well as unique experiences, thoughts, or feelings of each respective athlete. This also includes socioeconomic status, athlete psychology, level of knowledge. Previous research has stated that socioeconomic status can be defined as "educational attainment and social class based on occupation" (Basta, Matthews, Chatfield, and Brayne, 2007, p.48). Athlete psychology has to do with anything going on within the mind of an athlete. For example, there is a five-stage grief model that is used to judge and view the different emotional stages that an athlete deals with after an athletic injury (Bennett, Czech, Harris & Todd, 2016).

Environmental pressures are influences that come from outside an athlete. These pressures come from other people or things within an athlete's life. For example, these influences could come from coaches, teammates, trainers, parents, or any other outside source. This also includes sport specific ideas that may change between different sports. This also includes the broad ideas within the sport ethic concept such as the "need to play through injury" (Hughes & Coakley, 1991, p. 98). Injury factors are the factors that have to do with the actual injury itself. This includes things such as the severity of the injury as well as the type of injury. The severity of the injury was measured in time missed in weeks and the type of injury was measured by different categories. Previous studies have shown that the more severe the injury the more volatile the athlete's reaction to that injury could be

(Inigo, Podlog & Hall, 2015). The categories for injuries were; head injuries, sprains, breaks or fractures, and ligament or muscle injuries.

Data Collection Instrument

. In order to gather information relevant to answering the question of athlete reporting and injury a cross sectional interview method was used. The interview consisted of 14 scripted questions and aimed to get at the specific factors that influence an athlete's decision to report or not report an injury as well as their thought process behind it and coping behaviors. It seemed that using an interview was the most effective means to gather the data necessary for this research. The interviews were conducted using a semi-structured format. An opening script was read to the participant explaining what to expect during the interview. There were 14 scripted questions with the opportunity for more should they arise by the researcher during the interview (Appendix B).The researcher then read the liability release form to the participant explaining that the interview was completely voluntary and anonymous and they consent to be recorded (Appendix C).The questions were all open ended questions that provided the qualitative data necessary for the research. The first question is what year they are which just helps provide background right off the bat. The next couple questions refer to the injury that the participant sustained in college that made them eligible for the interview. The interview asked about the type, severity, and time loss about the injury, as well as questions about prior knowledge or symptoms of the injury. This helped to get at the level of knowledge piece because it is important to know if an athlete knew what to expect from the injury or if it was something new to them.

The next series of questions ask about if they have ever played through or hidden an injury. Questions about factors, both internal and external, that made the athlete think twice are asked as well as questions about different pressures and perceptions of pressures that an athlete can deal with during their career. The interview then progressed to questions about their parents' involvement in their athletic career and a question about how many people lived in their house during high school. This is important because parents can be involved in their child's career and not put any extra pressure on their child to play through or report an injury, but parents who are ultra-involved can also exhibit pressure and not realize it. The question about house size is important because students from similar background such as; one parent, two parent, or with siblings, could answer the questions in similar ways due to something in their home life.

The interview concluded with a question asking the interviewee if they feel like there is anything I should know about them personally, athletically or otherwise, or that they feel is important for me to know in my research that perhaps was not touched on. This helped at the end if someone has a unique story or thought that they feel was important to them when they were making these decisions.

Data Collection Process

There was a recruitment email crafted by the researcher and sent out by an administrator within the athletic department to every athlete on a SJFC roster. There was a stipulation email that stated that participants could only be athletes that have sustained some sort of injury that kept them out for at least a week of practice or play, and if they had gone through an injury to respond to the email if they were willing to do a short interview with the researcher. The researcher then set up the interviews with willing

participants based on overlapping availability of researcher and subject. The interviewer conducted two pilot tests prior to the launch of their project. After modifications were made following the pilot tests, the recruitment email was sent out. Athletes began to respond slowly. Prior to the interview the researcher walked the participant through the liability release form, including the purpose of the research and the precaution of voice recording during the interview. After the interviews were completed a thank you email was sent out to thank the participants for their time. The researcher then began to analyze the data (Jones, 2015). The data was inserted into a spreadsheet in order to analyze it further

Data Analysis Plan

Once the interviews were complete the data was compiled into an Excel spreadsheet. The answers were organized originally by both question and participant. In each row there were the answers by a single person, and in each column were all of the answers to a specific question. From there the researcher looked for common themes or answers that seemed to be recurring among the different athletes. The researcher looked for casual relationships between the different factors based on similar answers to the same questions by different athletes. The results of the research were not placed into set categories because the answers of the different participants were compared to possible correlations. The researcher made their own conclusions based on the differences or similarities of answers when compared to overlying factors such as age, sport, or year. For example, the researcher is looking for if people that have qualities in common, such as age, sport, year, or background also answered the questions in a similar fashion. This indicated a causal relationship between the quality they have in common and the similar answers

they gave, which while it does not indicate causality it does indicate that there is a relationship between the two factors. This research attempted to understand what some of the casual relationships are that could have a potential influence on injury reporting and coping behaviors. The researcher expects to find that many athletes attribute the reason they do not want to report their injury is due to a fear of being taken out and losing their playing time.

Results and Discussion

Participant Description and Discussion

Through this research process, the researcher was able to find factors that influence athlete decision making when it comes to injury reporting and coping. All participants were required to provide a pseudonym in place of their name, and indicate their demographic information as well, including academic year and sport (Appendix D). The participants were both males and females; five males and six females. The participants were of various ages in their collegiate careers. Of the eleven total participants, four were seniors, four were juniors, one was a sophomore, and two were freshman. The participants also came from a variety of sport backgrounds and environments: football (n=3), field hockey (n=1), lacrosse (n=1), basketball (n=3), softball (n=1). The other two participants were two sport collegiate athletes; one was a cheerleader and ran track and field, the other played softball as well as volleyball.

All participants were required to have sustained some sort of injury that took them out of participation for at least one week. Of the eleven participants, five indicated some sort of ankle sprain or ankle injury. Two responded with knee injuries; one was a torn meniscus, and one was a dislocated kneecap and sprained/strained Medial Collateral

Ligament (MCL). Two had sustained concussive injuries. The last two suffered broken or fractured bones injuries; one a broken hand, and the other a fractured growth plate in the shoulder with torn ligaments as well. This initial injury list became the first theme uncovered with the high occurrence of ankle injuries. This type of injury was by far the highest occurring injury among the participants with about 45% of the participants indicating this type of injury whereas no other type of injury had a response rate higher than 19% of the sample. These percentages are potentially skewed due to the small number of actual participants in the research. It is important to look at this for an explanation as to why this was the highest reported injury or if there is a relationship between this type of injury and another factor such as the sport played. A relationship between sport played and the types of injury was not revealed. The five ankle injuries were spread out among five sports; football, cheerleading, lacrosse, basketball, and softball. Furthermore, to continue to show a lack of pattern between these two factors none of the other injury types, aside from concussive and ankle injuries, were mentioned by two athletes of the same sport.

The severity of the injuries, measured in terms of time loss and the need for surgery, ranged from low severity to very high severity. The time loss ranged anywhere from a week and no surgery all the way up to six months and surgery. The two injuries that had the highest amount of lost time were the two bone break or fracture related injuries. This is not unexpected because broken or fractured bones tend to take longer to heal than other injuries such as sprains or concussions. Jamaar James, a senior football player, suffered a torn rotator cuff that required him to get surgery and he missed the entire season as well as part of the offseason, totaling a time loss of about six months. Francesca James, a senior

softball player, was the participant with a similar type of injury in that she broke her hand. Her recovery was also extensive as she missed the last three weeks of the season and was still injured into the offseason. Her injured time totaled over a month. While this would seem to indicate a relationship between the type of relationship and the amount of time lost this cannot be generalized. This is because many injuries vary by degree even within the same types of injury. This is evidenced among the group of participants that all responded with ankle sprains. All of the participants had many different experiences with their injury. Of the five people, two were only forced to be out for a week, one was out for a week but had to make concessions in practice the next week, one was out for three weeks, and one was supposed to be out for six weeks but decided to come back in three and re-injured the same ankle to then require surgery. This wide range of severity for injuries to the same area of the body makes it difficult to conclusively link the type of injury to the amount of time lost.

When it came to previous knowledge about their respective injuries the participants had varied answers. Three of the participants stated that they had sustained similar injuries prior so they had some knowledge about the injury, symptoms of the injury, what to expect, and a general idea of the recovery process they would have to go through. Five respondents indicated that they had sustained similar injuries prior, but not to the severity of this injury, so their level of knowledge about what to expect was not as high but they did have some baseline knowledge about their injury or that type of injury. The other three participants indicated that they had very low levels of knowledge about their injury due to the fact that it was either their first injury, or their first injury of the type so they were not at all aware of what to expect during the process. While it was discovered in previous

research that the lack of knowledge of risks and consequences of sustaining an injury play a greater role in high school athletes deciding to report it is still possible that this lack of knowledge could have similar consequences for all athletes of all injuries (McCrae, et al. 2004).

Another factor that ties into the level of knowledge piece is the idea of pre-existing symptoms and whether there were any or if they were acknowledged by the athlete. Seven of the eleven participants indicated that their injury was one without any prior symptoms, but rather was a sudden injury that just happened. The other four participants indicated that they knew that they had some sort of prior symptoms or soreness that came before the actual injury or symptoms of the injury did not appear fully immediately. If an athlete ignores these symptoms it could lead to them hurting themselves further or more extensively than they would have if they would have taken care of the small injury in the first place. Emily Smith, a freshman basketball player, talked about how when she sustained her concussion during a game she did not immediately get all of the symptoms she was used to when getting a concussion so she thought she did not necessarily have one and tried to continue and play anyway. It was not until the next day, before the second game of a back to back, that all of the symptoms hit her at once and she realized how badly she actually was injured the night before. Emily's specific example provides strong evidence that even though she had sustained concussions prior, did not have the necessary level of knowledge to make this decision. She did not know that concussion symptoms do not always appear at once and can take days to come to fruition. This points to previous research that states that many athletes have had their bell rung but believe it falls short of

actual concussive injuries because they are not fully aware of all of the levels and symptoms of concussions (Miyashita, Timpson, Frye, & Gloeckner, 2013).

Of the eleven athletes that participated in the research all of them indicated they have played through injury, in one form or another. Five of the people interviewed indicated they have played through possible concussions. Four indicated they have played through some sort of bone injury such as a broken or dislocated finger. Four indicated they have played through some sort of muscular injury such as a pull or a tear. Two indicated they have played through injuries such as ankle sprains. This wide array of injury types indicates that the type of injury does not necessarily have an impact on reporting behavior because they were all played through. As evidenced by these behaviors coupled with these athletes injury history, little consistency exists with a specific injury type leading to more consistent reporting.

When asked what factors made them think twice about reporting their injury ten of the eleven participants indicated some sort of a time-loss aspect in their answer. In previous research, Abraldes explains that after all of the sacrifice and commitment an athlete gives to their sport they want to be able to compete at a very high level (2016). A general theme emerged among these answers of not wanting to have to sit out of practice or games for one reason or another. This is important because it points to a change in playing time as an important factor within an athlete's mind when they are considering whether to report or to not report their injury. Christina Howard, a freshman field hockey player, said that, "As a freshman getting playing time she did not want to stop practicing or lose playing time because she was not sure if it would ever pick back up." Four of the eleven participants indicated that there was an element of "showing toughness" or "not showing

weakness” that also had an impact on their decision to report or not. This confirms the “shake it off” mentality and the impact it has on an athlete’s mentality during injury times.

Ten of the eleven participants indicated that the consequence of missing practices or games was one of the biggest factors they took into consideration when considering whether to report an injury or play through it. This was a factor that exposed itself as being highly important to the student-athletes that participated in this study. When asked the question how much of a factor the consequence of missing practices or games was the participants responded with answers such as; “A major factor”, “The only factor”, and “highly important”. This further confirms the conclusions in the research by Kay, Welch, and McLeod that reporting of an injury was negatively related to and influenced by the fear of losing playing time or letting others down (2015).

The “Shake it off” mentality glorifies the ideas of toughness, aggression, and bravery within athletes (Beaver, 2013). While this idea may not be explicitly taught to athletes today, it is an established culture within sport that is taught unintentionally, as evidenced by the answers pointing to it as a reason why athletes decide to play through injury. Kim Ling evidenced this in her answer when she talked about how she was a person that always pushes through things such as injuries and problems. She talked about how in high school she never made a big deal about things such as injuries and part of her problem is that she has continued the same mentality into college.

“Shake it off” mentality can also be tied to the idea of “the sport ethic”. Hughes and Coakley stated that the sport ethic encompasses the idea that injuries are just a part of sports and are to be accepted as such. Athletes are encouraged to play through injuries and do whatever they need to do to play (Hughes & Coakley, 1991). Jamaar Jones

unintentionally encompassed this complete idea with one of his answers. He stated that he had definitely played through concussions before during his football career. When pressed to clarify his feelings about playing through these concussions he said “Concussions just like all injuries are just part of the game. Playing through injury is something that comes with the territory of playing sports.” This reinforces the ideas of “Shake it off” and the “sport ethic” as being factors that influence athlete decisions when it comes to injuries.

There was a common theme among the participant’s answers that they felt some sort of pressure to perform during their injury period. The source of the pressure felt by these athletes didn’t have a consistent pattern of representation; that is, who or what they felt pressure from was very situation dependent. Most athletes also indicated that a big part of that pressure had to do with coaches or teammates and the want to play well for them. Two of the participants indicated the pressure was mainly to get back to playing. Seven of the interviewees indicated that a big reason for their feeling of pressure was performance related. In some cases, the presence of a big game or important rivalry placed more pressure on the athletes to continue playing. In other cases, the athlete had hidden the injury and as a consequence, their expectations to perform were still very high.

Internal or self-pressure was the most consistent source of pressure that the athletes pointed to feeling during their injury. Much of the internal pressure that these athletes put on themselves is fueled by the external expectations of others such as coaches or teammates. The majority of participants that indicated that self-pressure, in wanting to be able to play the same way as they always had, was their biggest source of pressure. John Doe stated that the pressure he felt was a combination of all three, internal, as well as coaches, and teammates. He said that, “You obviously want to do well for yourself and that

is most important, but at the same time you want to play well for your coaches and teammates and not let them down.” This further shows the idea that while the pressure may be primarily internal, there is always going to be external influences that exude pressure.

Playing sports become such an integral part of an athlete’s life that playing in their games becomes one of the most important things in their lives. Collegiate athletes especially place a high importance on being able to play and perform in their sport. For this reason, many collegiate athletes hide injuries due to the fact that they feel that they have so much to lose by reporting symptoms of their injuries and risk being taken out (Williams, Putez, Giza & Broglio, 2015). While the research by Williams et al. was focused on concussions the same reasons athletes hide injuries can be applied for all injuries across sports (2015). Four of the eleven participants indicated that that there was some essence of feeling like they could not miss out due to an injury. Kim Ling in particular embodied this with her answer. She said that, “When someone works as hard as she does to maintain her spot and something as small as an injury could make her miss time and potentially lose her spot so this is one of the biggest factors for her. On her team the rule is "no practice no play" so she knows she has to play and by default she needs to practice.” This makes it increasingly apparent that the feeling of missing out is a big factor in many athlete’s decisions not to report injuries.

Nine of the eleven athletes interviewed reported having some sense of feeling like they were letting their coaches or teammates down. While this feeling was not mentioned as a primary factor in the thought process it is still a factor that has an influence on behavior. This feeling is further brought out by the coaches and teammates of a player at

times because of jokes or harassment about their injury that can be intentionally lighthearted but still have an impact. Eight of the eleven participants indicated having been subjected to jokes or harassment by teammates or coaches. While it was never anything take too seriously it did weigh on the mind of some of the athletes. Six of those eight indicated these episodes had some impact on their mentality and in some way made them feel like they should still be playing regardless of injury. Savannah Miller, a sophomore cheerleader and track runner, indicated that these episodes made her want to push to come back that much faster and she ended up coming back too early and re-injuring herself. Register et al. came to the conclusion that perception of reporting an injury is highly important within an athlete's mindset when dealing with injury (2014). They indicated within their research that athletes that had a positive perception about reporting a concussion would be more likely to report in (Register et al., 2014). Even though this research was done on student-athletes and concussions it is conceivable that many of the same reasons athletes hide concussions can be attributed to most other injuries as well.

This points to the idea that athletes that have a negative perception about reporting injuries because they fear the retribution from teammates or coaches are more likely to hide an injury. Francesca James alluded to this when she answered whether these episodes of jokes and harassment had an impact on her mentality. She was sitting out of softball due to a broken hand and even tried to play through this injury but she could not even swing a bat. She indicated that even though she knew she was severely injured and could in no way play, the jokes still impacted her mentality. She said that even though the jokes were lighthearted and nothing serious they still made her feel like she could and should still be playing. This further points to the ideas by Register et al. These answers further validate

the fact that perception of external consequences has an impact on the mentality of student athletes during an injury. Even after an injury has occurred the perceptions of others continue to influence the way an athlete thinks or behaves with their injury.

There are also different sport cultures where toughness and masculinity is pushed to the forefront. One of these sports is football and it is shown in how some of these athletes were joked on by their teammates or even coaches when they were injured. All three of the football players indicated that when they were out due to injury they either had players or coaches make jokes to them about things such as “being soft” or “faking it”. This does not necessarily indicate that these episodes in this setting have a specific impact on reporting attitudes. Of the three only Jamaar James indicated that these episodes had an influence on his mindset throughout his injury even though the themes of the jokes for all three were very similar. He said that the episodes, “Made him feel like he had to play.” He indicated that while this was not a primary influence on his injury decisions it definitely had some impact.

Eight of the eleven participants indicated that the biggest influence on their respective injury decisions is primarily themselves. These athletes indicated that at the end of the day it is mostly their decision and up to them. Four of the eight indicated that their parents had some sort of influence on their injury decisions. While this is the case the overall themes of these answers were while the parent definitely has an influence when they are in the loop about an injury, they act more like a guide than a pressure. The four athletes who mentioned parents also mentioned the fact that at the end of the day their parents primarily leave the final decision up to them because it is their body. Three of the athletes mentioned teammates as an important influence on their injury decisions.

Teammates are the other players that are actually going through all of the same things as the athlete so they have the unique perspective of knowing exactly what each other are going through so it makes their opinions doubly important in some athlete's minds.

Kroshus et al. indicated in their study that around one in four athletes experience some sort of pressure from an external source such as a teammate, parent, coach, or fan to continue playing after a head impact (Korshus et al., 2015). This further provides evidence to the fact that pressure from external sources such as teammates is not only prevalent, but something that is highly influential as well.

Inigo, Podlog, and Hall discussed how athletes feel as if they need to live up to the expectations of their parents, so they feel they have an obligation to continue playing even after injury (2015). All eleven of the participants indicated that their parents have been highly involved throughout their athletic careers. This ranged from going to every game to making sure the athlete talked to a parent every game. The majority of athletes indicated that they are fairly open with their parents when it comes to things such as injuries. While the athletes all indicated that their parents are very supportive and their opinions are very important to them when it comes to injuries at the end of the day the final decision is usually left up to the athlete to make themselves. While some parents, intentionally or unintentionally, apply pressure on their athletes about injuries when it comes to either reporting and being cautious or playing through and being tough, it is usually more of a guiding influence more than a decision changing influence. Savannah Miller stated during her interview that while she placed a high importance on the opinion of her parents, at the end of the day if there is a disagreement she would take her own opinion into higher consideration because of the fact that it is her choice and her body.

Ten of the eleven participants reported growing up in a two-parent household with ten of the total eleven also reporting living with one or more siblings. Bejar & Butryn discussed how growing up in a single parent household could be pointed to as an additional parental stressor on the athlete (2016). The housing structure of the participants in the research did not appear to discover any link between this factor and the reporting or coping behavior. While only one athlete reported being in a single parent household and only one athlete reporting not having any siblings the answers to the rest of the questions were still similar.

Another factor that uncovered itself throughout the research was the factor of a player's role on their team as well as their age. Many athletes reported treating an injury differently based on if they were a starter or a bench player, as well as year of eligibility such as freshman, sophomore, junior, senior. When an athlete is a starter or is a role of high importance on the team they feel more pressure to perform at a high level for their team because more is expected of them. Christina Howard discussed how being both a freshman and a starter on the field hockey team had an impact on her injury decisions. She said that, "Personally as a freshman and a starter I felt more pressure to be there for the team. I had a big role on the team so I had to live up to it and would be less inclined to report an injury than someone that does not necessarily have as big a role and does not play as much, because I would not want to be taken out versus someone that would have an easier time missing practice or less consequences from missing practice such as a loss of playing time or disappointing a coach". John Smith, a junior football player, indicated that year was highly important to him when it comes to his mindset about an injury. He discussed how he got hurt his senior high school season, and that as a senior there is no option to sit out

because at the end of the season your career is over and it could be your last game. The mindset is different when an athlete gets hurt and can still look ahead to “next season”. John Do, a junior basketball player, said, “Academic year is a huge factor. As you get older and get towards the end of your career you want to take advantage of the time you have while its left so you want to play through anything.”

There are also athletes the report a different attitude when considering similar factors. For one girl being a starter on the team gave her more of a responsibility to be careful with her injuries and take care of herself so she can be 100% for her team. Emily Smith said, "Because I was a starter I was more careful with my body and made a point to report my injuries, because I knew that I would hurt the team if I did not take care of it. I would approach it the same way for the year factor, but if it was senior year I feel the pressure and the need to play through and finish her career would overpower anything else. I feel like you need to play every season like it is your last because you do not know what injury could be your last injury." This shows that while there is a definite relationship between role on the team or year and the reporting decision or behavior, the relationship cannot be justified one way or the other because it depends on each individual athlete.

Conclusions

The current study explored different factors that affect an athlete’s injury reporting decision. Some factors stood out more than others as things that affect an athlete’s decision to report an injury such as time loss. The results found from this research is important and should be taken into consideration by athletic departments to utilize. Having a better idea of the factors that can affect an athlete’s injury reporting will be useful for athletic departments, and coaches.

There were some limitations throughout this research that could have played a role in the results. There were only eleven athletes interviewed for the purpose of this research. Although a variety of academic years and sports were interviewed, eleven athletes do not give a wide range of athletes. The data would probably be much different, and much more solidified if the researcher was able to interview more athletes. Another limitation is that only St. John Fisher College athletes were used for the purpose of this research. This limited the scope, and the amount of responses the researcher got for this research.

Some recommendations for future research about the factors affecting an athlete's injury reporting decision could include attempting to get a higher population of athletes to use for this research. Interviewing more athletes for this type of research would be beneficial because it would allow for a wider array of answers. Throughout this research there were many factors that stood out among the athletes interviewed, but bringing more athletes into the research might allow for those factors to narrow down even more.

As collegiate athletes, sports become more than just a hobby, they become a lifestyle. Along with this lifestyle comes a lot of pressure to perform and a lot of expectations to be at their best every day. However, injuries occur at some point for all athletes and they are faced with a choice, to play through the injury or to report the injury and risk losing playing time among other things. This research helps to see which factors go into an athlete's thought process about their injury.

References

- Asken, B. M., McCrea, M. A., Clugston, J. R., Snyder, A. R., Houck, Z. M., & Bauer, R. M. (2016). "Playing through it": Delayed reporting and removal from athletic activity after concussion predicts prolonged recovery. *Journal of Athletic Training (Allen Press)*, 51(4), 329-335.
- Basta, N. E., Matthews, F. E., Chatfield, M. D., & Brayne, C. (2007). Community-level socio-economic status and cognitive and functional impairment in the older population. *The European Journal of Public Health*, 18(1), 48-54.
- Beaver, W. (2013). *The future of football. Society*, 50(4), 335-338
- Bejar, M. P., & Butryn, T. M. (2016). Experiences of coping with injury in NCAA Division I athletes from low-to-middle socioeconomic status backgrounds. *Journal of Sport Behavior*, 39(4), 345-371.
- Bennett, H. R., Czech, D., Harris, B., & Todd, S. (2016). Perceptions of coping with an injury in sport at the NCAA Division I level: Perceptual continuity between student athletes and their athletic trainers. *Clinical Kinesiology*, 70(4), 39-43.
- Covassin, T., McAJlister-Deitrick, J., Bleecker, A., Heiden, E. O., & Jingzhen, Y. (2015). Examining time-loss and fear of re-injury in athletes. *Journal of Sport Behavior*, 38(4), 394-403.
- Cralley, E. (2007). Socioeconomic status. *Encyclopedia of social psychology*, 928-928
- Cranmer, G. A., & Brann, M. (2015). "It makes me feel like I am an important part of this team": An exploratory study of coach confirmation. *International Journal of Sport Communication*, 8(2), 193-211.

- Heshka, J., & Lines, K. (2012). "One ding to rule them all": A proposed new approach to regulating brain injuries in sport. *International Journal of Sport & Society*, 3(4), 141-152.
- Hudson, R., & Spradley, B. (2016). Concussions: A sport ethics commentary. *Sport Journal*, 1-7.
- Hughes, R., & Coakley, J. (1991). Positive deviance among athletes: The implications of over conformity to the sport ethic. *Sociology of Sport Journal*, 8(4), 307-325.
- Iñigo, M. M., Podlog, L., & Hall, M. S. (2015). Why do athletes remain committed to sport after severe injury? An examination of the sport commitment model. *Sport Psychologist*, 29(2), 143-155.
- Jones, I. & Gratton, C. (2015). Research methods for sport studies. Milton Park, Abingdon, Oxon, New York, NY: Routledge, 2015.
- Kay, M. C., Welch, C. E., & Valovich McLeod, T. C. (2015). Positive and negative factors that influence concussion reporting among secondary-school athletes. *Journal of Sport Rehabilitation*, 24(2), 210-213.
- Kroshus, E., Garnett, B., Hawrilenko, M., Baugh, C.M., & Calzo, J.P. (2015). Concussion under-reporting and pressure from coaches, teammates, fans, and parents. *Social Science & Medicine*, 134, 66-75.
- Madrigal, L., Robbins, J., Gill, D. L., & Wurst, K. (2015). A pilot study investigating the reasons for playing through pain and injury: Emerging themes in men's and women's collegiate rugby. *Sport Psychologist*, 29(4), 310-318.
- Masten, R., Stražar, K., Žilavec, I., Tušak, M., & Kandare, M. (2014). Psychological response of athletes to injury. *Kinesiology*, 46(1), 127-13

Messner, M.A. (2007). *Out of play: Critical essay on gender and sport*. State University of New York Press.

Norcross, M. F., Johnson, S. T., Bovbjerg, V. E., Koester, M. C., & Hoffman, M. A. (2016). Factors influencing high school coaches' adoption of injury prevention programs. *Journal of Science & Medicine in Sport, 19*(4), 299.

Register-Mihalik, J. K., Guskiewicz, K. M., McLeod, T. V., Linnan, L. A., Mueller, F. O., & Marshall, S. W. (2013). Knowledge, attitude, and concussion-reporting behaviors among high school athletes: A preliminary study. *Journal of Athletic Training, 48*(5), 645-653.

Wiese-Bjornstal, D. M. (2010). Psychology and socioculture affect injury risk, response, and recovery in high-intensity athletes: a consensus statement. *Scandinavian Journal of Medicine & Science in Sports, 20*, 103-111.

Appendices

Appendix A

Dear Student Athletes,

My name is Zachary Mallard and I am a Sport Management Major here at St. John Fisher College. For my senior thesis project, I am studying how athletes process and cope with athletic injuries. Since you are a student athlete here at SJFC, your participation could help my study. I am inviting you to share your injury story through a one on one interview.

The purpose of this research is to determine how student athletes here at St. John Fisher College are reporting their injury symptoms. I am looking for current student athletes that have experienced an injury at some point within their collegiate athletic career that has forced them to miss more than a week of practice or play. My study is looking to better understand the process an athlete takes in acknowledging their own suspicions of injuries and how athletes deal with these injuries.

If you fit these criteria I am requesting you to contact me to help with my research. The interviews will take around 20 minutes.

You will pick your pseudonym to use in order to replace your name during this process. There are no known risks and since answers are reported generally, they will not be linked to you.

If you would like to help me with my research, please contact me through email (zam05360@sjfc.edu). In your response, please indicate what sport you play and the best way to contact you.

If you do not fit these criteria or are unwilling to participate, please send a quick response indicating that so I can select another athlete. If you have any questions, contact me or my supervising professor at the contact information listed below.

Sincerely,

Zachary Mallard
zam05360@sjfc.edu

Dr. Emily Dane Staples
edane-staples@sjfc.edu

Appendix B

Opening Script

My study aims to understand the different things that impact an athlete's mindset after an injury from coping to reporting. Since you are an athlete at the college that has sustained some sort of injury throughout your collegiate career your perspective is essential to understanding why athletes chose to cope or report the way they do. During this interview you will be asked about your injury, about your thought process throughout, about experiences you may or may not have had during your injured period as well as demographic questions to understand the background of each athlete. This interview should take no longer than 20 minutes and is completely voluntary. You have the right to refuse any question at any time as well as stop the interview should you want to. Please sign the consent form before we begin.

Interview Questions

Opening script/statement

Tell them what they can expect for the next 30 minutes.

Ask them to sign the consent form

Begin asking questions

1. What year in school/sports are you?
2. What is the first injury you thought of when responding to this email?
 - a. What type of injury, severity, time loss
3. How much previous knowledge did you have about the injury you sustained?
4. How aware were you of the symptoms of your injury prior to sustaining it?
5. Have you ever not reported, or played through an injury? Expand on decision.
 - a. What was the injury
6. What other factors make you think twice about reporting an injury?
7. How much pressure do you feel to perform when you are injured? Where do you think this pressure comes from and why? In what ways does the pressure to play when you are healthy compared to when you are injured feel different?
8. To what extent were the consequence of missing a practice or game a factor in the decision not to report an injury? Explain.
9. Did you have any coaches or teammates make jokes or harass you about the injury?
 - a. Did these episodes make you feel like you should be playing regardless of injury?
10. When you had to sit out due to injury, did you feel a sense of letting your teammates and coaches down? Explain.
11. Who had the biggest influence on your decision to report or not report an injury? Self, coaches, parents, or teammate prompt if needed
12. How involved have your parents been throughout your athletic career?
13. How many adults and children live in your house?
14. Are there any other things that you feel I should know about your athlete history that can help explain your coping and response to injury?

Appendix C

Liability Release Form

I _____ hereby choose to participate in the research done by Zachary Mallard. In this interview, I understand I will be asked questions related to my injury history and decision making processes while dealing with injury. As a student athlete, I will be sharing past and current experiences within my sport. I acknowledge that the interviews will be structured and will be 14 questions.

I consent to the use of an audio recorder and know that the recording will not be made public.

Participation in the interviews is completely voluntary, and I know I have the right to decline questions at any time during the interview.

By signing below, I give permission to have the audio recordings from the interviews used by the researcher for educational purposes like papers or presentations.

Name (Print) _____

Signature _____

Date _____

Pseudonym I would like to use _____

Appendix D

Pseudonyms and Demographics

Pseudonyms	Demographics
John Smith	Junior, Football
Savannah Miller	Sophomore, Cheerleading/ Track and Field
Jamaar Jones	Senior, Football
Ace Young	Senior, Football
Susan Smith	Senior, Lacrosse
Tim Johnson	Junior, Basketball
John Doe	Junior, Basketball
Kim Ling	Junior, Softball/ Volleyball
Francesca James	Senior, Softball
Emily Smith	Freshman, Basketball
Christina Howard	Freshman, Field Hockey