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An Examination of Coping with Career Ending Injuries- An NCAA Division I and NCAA Division III Comparison

Hayley C. Marks

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AN EXAMINATION OF COPING WITH CAREER ENDING INJURIES
AN NCAA DIVISION I AND NCAA DIVISION III COMPARISON

by

HAYLEY MARKS

(Under the Direction of Daniel Czech)

ABSTRACT

Researchers have suggested that the way an athlete copes with the end of his or her career can be one of the most influential factors in how an athlete transitions out of their respective sport (Gardner & Moore, 2006). Moreover, an athlete is more likely to have sport transitioning issues if he or she sustains a career ending injury (Heil, 1993). Although this is the case, questions arise examining the coping styles and life impact career ending injuries may have on athletes who play at different levels. Sturm et al., (2011) suggested that the athletic identities of NCAA Division I athletes are similar to those of NCAA Division III athletes. Thus, the purpose of this study is to qualitatively examine and compare the coping strategies and injury impact of NCAA Division I and NCAA Division III athletes who have sustained a career ending injury. Data was transcribed and analyzed; emerging themes were identified as a) emotional response to injury, b) redefining identity, c) adopting a coping strategy, and d) feelings of unpreparedness to cope with transition. NCAA Division I athletes experienced more negative emotions than NCAA Division III athletes. All NCAA athletes adopted coping strategies to cope with the transition out of sport. The majority of the athletes felt unprepared to cope with this transition.

INDEX WORDS: Sport Psychology, Injuries, Coping, Athletic Identities, Transitions

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HAYLEY MARKS

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Major Professor: Dr. Daniel Czech
Committee: Dr. Brandonn Harris
Dr. Trey Burdette

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Spring 2014

DEDICATION

This thesis is dedicated to my loving and supportive family. You have always supported me in all of my adventures, encouraging me to do my best. You taught me to always challenge myself, set high standards, and to be satisfied with how far I have come even if I hadn't fully reached my goals. "Set your goals as high as the moon. If you don't achieve these goals, you will still land among the stars." Thank you for always rooting for me, the game's not over yet!

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I would also like to thank those that participated in this study. Thank you for providing me with your story and helping me understand what you went through. This study will hopefully help contribute to existing research and help others that have endured similar experiences.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	6
LIST OF TABLES	8
CHAPTER 1	9
INTRODUCTION	9
CHAPTER 2	20
METHOD	20
CHAPTER 3	26
RESULTS	26
CHAPTER 4	37
DISCUSSION	37
REFERENCES	44
APPENDIX A	48
APPENDIX B	50
APPENDIX C	60

LIST OF TABLES

Table 1: Participant Information	27
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CHAPTER 1

INTRODUCTION

An athlete has many experiences during his or her career, including strong social relationships, recognition, enjoyment of participating, and increased knowledge and skill mastery (Gardner & Moore, 2006). Athletes can experience fame and glory during the peaks of their careers; however they can also miss this opportunity due to a variety of reasons. An athlete's career can suddenly be ended by an injury sustained in college. These athletes must transition out of the sport they have dedicated time and effort to for many years, and in this process they may find themselves experiencing a wide variety of thoughts and feelings regarding their injury and the repercussions of the event. During this time an individual spends with their team, they develop and strengthen their athletic identity. This identity that the individual recognizes can be very hard to separate from due to an injury.

Athletic Identity

For years, athletic identity has been defined as “the degree to which an individual identifies with the athlete role” (Brewer, Van Raalte, & Linder, 1993, p. 237). The status that an athlete holds on his or her team as well as the status and recognition the athlete receives off of the field can be a vital part of being an athlete and representing the school. This status can also be detrimental to the athlete when they must transition out of their sport. There has been conflicting research regarding divisional differences and athletic identity in sport. Sturm, Feltz, and Gilson (2011) suggested that the athletic identities of NCAA Division I athletes are similar to those of NCAA Division III athletes. However,

the study conducted by Griffith and Johnson (2002) revealed that NCAA Division III athletes showed higher levels of athletic identity than NCAA Division I athletes. Cantor and Prentice (1996) found that athletes competing at the NCAA Division III level experienced a strain on their identity due to the rigorous demands of their sport. In this study, NCAA Division III athletes claimed that the demands of the sport they were playing were comparable to demands from other activities the athletes were involved in.

There are positive correlates associated with having a strong athletic identity. For example, athletes who have a high athletic identity have also been found to have higher levels of self-confidence and greater social interactions (Petitpas, 1987). Additionally, athletes with higher levels of athletic identity also have reported experiencing an increase in overall sport performance (Danish, 1983). The increase in sport performance related to a high athletic identity supports the notion that many athletes focus most of their time on their sport rather than other extracurricular activities in order to enhance their performance. Brewer et al. (1993) found that athletes with a stronger athletic identity place a greater importance on athletics. These athletes usually allocate most of their time to their sport, spending it mainly with teammates and coaches. The additional positive experiences that athletes with high athletic identity are exposed to include increased confidence and a stronger sense of self-identity.

While there are positive associations evidenced with higher athletic identities, there are also negative correlates associated with higher levels of athletic identity. Many of these negative aspects are experienced when an athlete encounters a transition out of sport. This might include, for example, when an athlete comes to end of their sport career, voluntarily or involuntarily, such as incurring an injury or being cut from a team.

If an athlete identifies too closely to their role as an athlete, it can make leaving their sport more difficult. These athletes have a harder time separating themselves from athletics and can become more susceptible to experiencing deficiencies in both emotional and physical health, depression, and feelings of isolation (Brewer et al., 1993). Research also suggests that an athlete that has a higher level of athletic identity will have a harder time adjusting to leaving their sport. Grove, Lavalley, and Gordon (1997) reported that athletes with higher athletic identity also demonstrated a higher degree of psychological adjustment needed to cope with transitioning out of their sport. This transition can be made harder and coping can be more difficult if the cause for change is sudden, such as an injury (Schlossberg, 1981).

Injury

Research has shown that about half of college athletes state experiencing an injury during their collegiate sport career (Etzel & Ferrante, 1993). Nearly 15% of athletes retire due to a career ending injury (NCAA, 2013). Many athletes experience challenges associated with leaving the sport world so abruptly. Heil (1993) explains that an athlete is more likely to have difficulties adjusting to unanticipated sport retirement. An anticipated transition out of sport is when an athlete's competitive career ends and the athlete has expected his or her career to end (Gardner & Moore, 2006). Examples of anticipated transitions include free choice to leave the sport and the expected conclusion of the opportunity to compete, as in the graduation from high school or college. The individuals that experience these transitions have the time and opportunity to prepare for their transition out of sport. On the other hand, athletes who experience unanticipated transitions out of sport are not as fortunate. In this situation, the individual's career as a

competitive athlete comes to an abrupt and unexpected halt, and can be due to deselection from a team or an injury (Gardner & Moore, 2006).

A career ending injury can be defined as an injury that prevents an athlete from returning to competition. Career ending injuries, as well as all injuries, are unanticipated, and most athletes have not prepared for this unanticipated event. Van Raalte and Anderson (2007) support this concern explaining that athletes who have been dedicated to playing sports for most of their lives experience problems in developmental areas including academics, relationships, and vocational exploration. Further research on athletic injuries suggests that an athlete who suffers a career ending injury can face a decrease in life satisfaction (Kleiber & Brock, 1992). Taken together, these studies may suggest that an athlete may spend so much time involved in sports that he or she may not have sufficient time to develop intimate relationships, may not invest as many resources in their education, and may be lost when it comes to deciding what to do once they complete their college education. These three components are vital to living a healthy and well balanced life. Many athletes focus so much of their time on sports that they believe they will play professionally, and they use this hope as their potential career path. However, the National Collegiate Athletic Association reports that about 15% of NCAA collegiate athletes in various sports progress to play professionally (NCAA, 2013). This means that most athletes will not have the opportunity to compete professionally. When athletes realize that they are not able to compete, it can be very hard to adjust to the idea of a sport-less career.

Coping

After experiencing an injury that leads to the termination of a sport career, an athlete must cope with the transition. Coping has been traditionally defined as “a process of constantly changing cognitive and behavioral efforts to manage specific internal demands or conflicts appraised as taxing or exceeding one’s resources” (Lazarus & Folkman, 1984, p.141). In other words, coping is how an individual deals with a stressful situation.

Many different models of coping and adjusting to transition have been established that can be utilized by athletes to aid in coping with transitioning out of sport. Some models exhibit a developmental type, which assess the transitions individuals endure using various personal and environmental factors, while others display a stage model, which addresses the phases that individuals go through and experience during a transition (Petitpas, Brewer, & Van Raalte, 2002). The conceptual model of athletic retirement introduced by Taylor and Ogilvie (1994) focuses on the process that an athlete goes through when they enter retirement. The model explains the different aspects of retiring from a sport and how the athlete can progress to a healthy career transition.

The first step in the model examines the causes of retirement among athletes, which includes age, deselection, the effects of an injury, and the free choice of the athlete. This leads to the second step, the factors related to how the individual adapts to retirement. This step explains that athletes face several changes, including those that are financial, occupational, social, and psychological in nature (Taylor & Ogilvie, 1994). The next step and aspect of this model addresses the resources that are available for individuals who are adjusting to retirement. These resources can encompass coping skills

that the athlete is using, any pre-retirement plans the athlete may have made, or social support that the athlete may have.

These previous three steps together greatly influence the fourth step of the model, which is the quality of adaptation to athletic retirement. All individuals may not suffer when adapting to exiting a sport, depending on the steps leading up to and affecting the quality of adaptation. If the quality of adaptation to athletic retirement is high, then this leads to a healthy career transition (Taylor & Ogilvie, 1994). If, however, the individual does not adapt to retirement well, does not have adequate resources for handling and accepting the transition, then the quality of adapting to retirement will be poor, thus leading to the fifth and final step of the model, interventions for athletic retirement difficulties. Taylor and Ogilvie explain that a sport psychologist may meet with the individual if they are having difficulties dealing with their transition, and may help individuals work through any distress experienced during that time. They also emphasize the importance of appropriate intervention and the ability to reduce the risk of experiencing emotional distress after transitioning out of sport. This model has displayed a clear process that the athlete experiences when transitioning out of a sport, and allows for a sport psychologist to see which step(s) the individual has experienced problems in and can help more easily determine how to help the athlete reduce the stress experienced due to athletic retirement.

Another stage model of coping was organized by Tunick, Etzel, Leard, and Lerner (2002), which pulled together emotional responses to loss that individuals experience and structured them into a stage model of adjustment phases that an individual endures when reacting to a loss such as transitioning out of sport. The phases an individual goes through

when responding to the stressful experience of losing something are shock, realization, mourning, acknowledgement, and coping/ reformulation (Tunick et al., 2002). Shock is usually seen in an individual within the first few hours of an injury, and they may appear to be confused, uncertain, or may even deny they are injured. The realization phase follows the shock phase; where the individual starts to admit that something is wrong. The individual may experience negative feelings including panic or worry, anger, and depression (Tunick et al., 2002). During the mourning phase, the individual fully understands their injury and its implications. In response to fully realizing the ramifications of the injury, the athlete may experience extreme distress and may feel helpless and alone. The individual enters the acknowledgement phase when they start to accept their injury, including related losses. The individual may have experienced changes in social, educational, financial, personal, and physical aspects of their life due to their injury. The last phase of adjustment, coping, is encountered by an individual when they have fully worked through their experience and is ready to progress through their life, leaving this experience behind them. An athlete may revert to a previous phase as the fear of reinjury may surface, causing them to recall thoughts and feelings associated with the injury. While this model depicts the different phases an athlete may experience while recovering from an injury, it is noted by the researchers that this model as well as other stage models should be utilized as guidelines for how an athlete progresses through the process of coping with an injury. It is widely assumed that stage models display a process of stages in which every athlete progresses through every stage (Petitpas et al., 2002). Many athletes do progress through stages of a model, however, it is not uncommon for athletes to revisit some stages or experience them out of order.

Developmental models differ in this regard as they investigate the transitions of an athlete from multiple areas due to the fact that all athletes are diverse and the environmental factors that each athlete experiences may be different, all affecting how they adjust to transitioning out of sport. The adaptation to transitions model designed by Schlossberg (1981) explains how adults handle transitions and has been adapted and used with collegiate athletes. Schlossberg explains that the characteristics of the transition, the features of both the pre- and post-transition environments, and the characteristics of the individual greatly affect how an individual adapts to their transition. Characteristics of the transition include the degree of stress the athlete reports, the presence of a change in role, if the transition comes from the person (decision to quit) or is due to an external source (such as an injury), whether the onset of the transition is gradual or sudden, and the duration of the adaptation. Pre- and post-transition environments include interpersonal support systems; such as families and friends that the athlete may turn to for support; institutional support such as the school or another organization, and the physical setting of the individual, including the climate, living conditions, and rural or urban location. The characteristics of the athlete, including age, previous experience, state of health, and psychosocial competence, are also very important in determining the effectiveness of the adaptation (Schlossberg, 1981). This model strengthens the concept of developmental models that there are many aspects that affect transitions, and that each individual handles transition differently.

Anshel et al. (2001) explained how coping strategies and styles are combined to form the coping process in competitive sport model, a model that provides different classifications of coping strategies. The two strategies of coping include problem- and

emotion-focused coping, also known as behavioral- and mental-coping, respectively. Problem-focused coping is centered on changing the problem that is triggering stress in an individual. Emotion-focused coping is based more on controlling the emotions that an individual has when reacting to a situation that causes stress. The approach that a person utilizes when coping is often called a coping style. Some individuals may be more inclined to adopt an approach style of coping, which involves dealing with the stressful situation directly; others may favor an avoidance coping style, where the individual solves the problem by avoiding the situation. Anshel et al. (2001) proposed a two dimensional conceptual framework for the coping process in competitive sport model, where the coping styles and coping strategies interact with each other to form four categories of coping strategies. These four categories include approach-behavioral coping, approach-mental coping, avoidance-behavioral coping, and avoidance-mental coping (Anshel et al., 2001).

Anshel (2012) and Cox (2002) explained the different categories of coping and provide examples of each for the coping process in competitive sport model (Anshel et al., 2001). When an individual uses approach-behavioral coping, he or she attempts to determine the reasons for mistakes that were made and then tries to correct them. Some of the strategies for this style of coping include speaking to a mentor, seeking support from others, and going to a counselor. A person using approach-mental coping tries to lower stress levels by using progressive relaxation. Utilizing positive self-talk, planning, and engaging in prayer are just a few strategies that can be used in this approach. The approach styles of coping are very active in dealing with an issue or situation. On the other hand, avoidance styles of coping address a situation by disregarding the issue at

hand. A person using the avoidance-behavioral coping style tries not to worry about the issue and tries again in order to succeed. Strategies for this coping style include walking away, exercising, or participating in another activity. An individual who uses avoidance-mental coping deals with coping by ignoring the situation and not letting the issue bother him or her. Some of the strategies that someone may use within this style are psychological distancing, ignoring, and putting more focus on the future tasks at hand. Anshel's (2001) model contains different phases of the coping process in response to various causes of stress experienced after a stressful event. This model integrates both behavioral and mental components of coping, and classifies more strategies for coping, therefore making it easier to determine if and how an individual is coping with a stressful event. For these reasons, this model will be referred to when discussing the results of this study.

Coping processes have been found to be one of the most influential factors during the process an athlete endures when transitioning out of a sport (Gardner & Moore, 2006). Folkman and Lazarus (1985) show that both behavioral- and mental-coping are used by athletes who experience injury, supporting the notion that coping is a dynamic process that involves using one or more strategies to cope efficiently. Some of these strategies that athletes utilize in order to help them cope with the transition out of sport included acceptance, active coping, behavioral disengagement, denial, humor, mental disengagement, planning, and seeking social support (Grove et al., 1997). Among one of the most commonly used coping strategies was seeking social support; more specifically, athletes reported that they felt better and accomplished more when they had support from family and friends.

While research has been conducted to examine coping strategies in athletes who have experienced injury and gone through the rehabilitation process, little research has been found which has examined how an athlete handles a career ending injury and the coping strategies he or she uses in order to come to terms with the transition. Although there have been studies that have examined the coping strategies of elite athletes who played a professional sport and were forced to retire due to injury, few qualitative studies have examined the coping strategies used by athletes aside from the professional level. Furthermore, little research has been found which has compared and contrasted coping strategies of NCAA Division I and NCAA Division III athletes. Therefore, by using qualitative research methodologies, it is expected that participants will freely give information that can be used to help address the issue of career ending injuries and the burdens that athletes feel when having to cope with their transition.

The purpose of this study is twofold. The first purpose is to qualitatively examine the coping strategies of NCAA athletes who have sustained a career ending injury. The second purpose will be to compare and contrast the coping strategies of NCAA Division I and NCAA Division III athletes who have sustained a career ending injury by means of qualitative research.

CHAPTER 2

METHOD

Participants

Six collegiate athletes (three from NCAA Division I colleges and three from NCAA Division III colleges) were interviewed for this study. These athletes sustained injuries that ended their playing career in their respective sports. This purposeful sample was selected based on the snowballing technique, as well as the ability of the participants to describe their experience. A snowball sample is a sample of participants that is recruited from acquaintances of existing participants, as well as acquaintances of the researcher. These participants were selected based on the amount of information that could be used from the interviews. Participants had experienced a career ending injury while competing at the collegiate level, and they had been out of competition for at least one year. Research shows that athletes reported their process of adjustment to a career ending injury lasting between six months and one year (Stoltenburg, Kamphoff, & Bremer, 2011).

Instrumentation

The researcher is the most important instrument in qualitative research, as the research conducted is in the form of an interview. Because of this, it is vital that the researcher's thoughts, feelings, and experiences with career ending injuries be understood. The following section conveys this personal information.

I am a second year graduate student in the Sport Psychology Masters program at Georgia Southern University in Statesboro, Georgia. I have been involved in sports for

the majority of my life, either participating or helping out on the sidelines. The most serious injury that I have experienced was a sprained ankle, which is miniscule compared to some injuries athletes face. I took an interest in injuries while working in the Athletic Training Room at my undergraduate college. During our homecoming game, our quarterback was severely injured. He was advised not to play after he had healed and gone through physical therapy and rehabilitation. This news was devastating to him, as he was only a sophomore at the time. He very much wanted to stay a part of the team and help out, so he became an assistant coach for the quarterbacks, held that position for two years, and is now coaching football at the NCAA Division III level.

Many athletes believe that their sport is all that they have, and when they are told that they cannot participate in that sport anymore, the athletes' reactions can be extreme. During my work in the Athletic Training Room, I experienced many athletes receive news that they would not be able to return to competition. I saw all of these athletes handle this news in different ways; some athletes were able to cope with this news pretty well and find a way to stay connected to the sport that they love, while others had trouble adjusting to the lack of stability that being on a sport team provided. After seeing the struggles that some athletes endured, I became interested in the different ways that athletes cope, and decided to further explore the subject.

Participants completed a demographics questionnaire in order to collect information regarding gender, ethnicity, NCAA College Division (I or III), sport played, nature of injury, and number of years they have been out of competition. Participants engaged in an interview session where the majority of the data was collected regarding

their experience enduring a career ending injury. Due to geographical constraints, the researcher contacted participants that were able to meet in person using Skype in order to conduct the interview and still maintain the face to face interview. Interviews were recorded using a voice recorder application that is installed on the researcher's tablet. The application is entitled "Easy Voice Recorder" developed by DIGIPOM, version 1.6. This voice recorder was used to record the interviews and to replay and transcribe the interviews.

The semi structured interview guide was used for interviewing participants. The questions consisted of the following:

1. Tell me about your collegiate sport career.
2. Tell me about the injury you experienced that resulted with you having to stop competing.
3. What were your thoughts and feelings when you learned you would not be able to continue competing?
4. How did you cope with not being able to compete?

The researcher asked the first two questions in order to allow the participants to fully recall their competitive sport career and the injury that they endured which caused them to discontinue competing. Probing questions were asked when necessary in order to obtain more information and clarify the participants' answers. Interviews lasted between 20- 30 minutes.

Pilot Study

Prior to the researcher conducting a pilot study, a bracketing interview was conducted in order to make the researcher aware of any biases that they had. A bracketing interview is performed so that the researcher is mindful of their assumptions, beliefs, or personal experiences related to the research topic (Tufford & Newman, 2010). Bracketing interviews help the researcher become more familiar with the research topic and uncover themes that may interfere with the researcher fully listening to the participants and their stories. A pilot study was then conducted in order to help the researcher enhance interview skills and to ensure that the questions being asked were comprehensible and appropriate. The researcher interviewed an athlete in order to make sure that the questions were clearly understood, and any necessary changes were made to the questions and the interview process in efforts to improve the study. The pilot study interview was recorded and transcribed in the same way that the interviews in the main study were performed. An interview guide of questions was used in the interview process in order to have the interviewee explain their injury and how they coped with their unfortunate news. The interviewee was also able to provide feedback on the questions that they were asked and were able to provide suggestions in order to improve the study.

Procedures

The researcher and members of the committee for this study obtained names and contact information of athletes that met the criteria mentioned above. The athletes were contacted by the lead researcher and the study was explained to the athletes. Once the athletes agreed to participate, meeting times to conduct the interviews were mutually

agreed upon. The participants were made aware that the interviews they gave would be recorded; however their names could not be traced back to their interviews. Participants were also made aware that the researcher and her team would be the only ones that would be reviewing the data. Participants had the opportunity to review their transcript and validate their responses. The informed consent explained that participants could choose to end their interview at any time.

The researcher collected data in the form of in-depth interviews, similar to most qualitative studies. The questions for this study consisted of open ended questions, which allowed the participant to respond in his or her own words without any leading questions, which can guide the interviewee to say something that they think may be expected by the researcher.

Data Analysis

The main goal of the data analysis is to understand the data collected. All of the interviews were recorded and then transcribed into an interview script. Transcripts were prepared by the researcher. The researcher was the only individual that had access to the audiotapes until they were erased. The copies of the transcripts, informed consent, and recordings of the interviews continue to remain locked in a file drawer. In order to ensure confidentiality, names of participants were changed to numbers. Data analysis was conducted according to the process established by Czech, Wrisberg, and Fisher (2004). The steps in this process include approaching the interviews, focusing the data, summarizing the interviews, and releasing the meanings. Once the interviews were collected, the researcher approached the interviews by transcribing the interviews

verbatim and obtaining a grasp of the content. The researcher then focused the data by pulling out information that was significant. In this step, the researcher also eliminated any parts of the interview that were irrelevant. Next, the researcher summarized the interviews and gathered all related statements together. After this step, the researcher then released the meanings, identified themes within the interviews, and matched segments of the interviews with the determined themes.

In order to establish credibility in the study, triangulation was achieved in the form of interviewer transcription, member checks and peer debriefing. Member checks were completed in three parts. Following the interview, participants were asked if they would like to add any additional comments or clarify anything that was said. After the interviews were transcribed by the researcher, participants were given a copy of their interview in order to review and confirm the dialogue. After the transcripts were reviewed and themes were established, the researcher sent a copy of the themes and interview segments to the participants to verify themes and make sure the essence of what they said still remains. Peer debriefing was also utilized by the researcher. Once the themes were established and verified, the interview scripts were given to fellow graduate students in sport psychology in order to confirm that the chosen segments from interviews appropriately matched the corresponding themes.

CHAPTER 3

RESULTS

The participants were interviewed, the interviews were transcribed, and themes were formed based on the content of the interviews. In order to provide a vivid and rich descriptions, each participant was asked to first recall and explain their sport career, followed by expounding on the injury that they experienced which discontinued their opportunity to continue competing. The participants were then asked how they felt and how they coped with this experience.

A description of the participants is listed below. The participants were six athletes who endured a career-ending injury during the collegiate level. Five males and one female, three from NCAA Division I and three from NCAA Division III were included, and played sports including football, basketball, and baseball. Each athlete suffered from their injury while they were competing at the collegiate level, during a game or practice, and all participants have been out of competition for at least a year.

Table 1 Participant Information

Participant	Gender	Ethnicity	Sport	NCAA Division	Injury	Number of years out of competition
1.	Male	Caucasian	Baseball	Division I	Torn UCL	3
2.	Male	Caucasian	Football	Division I	Nerve damage in back	6
3.	Female	African American	Basketball	Division I	Torn ACL	4
4.	Male	Caucasian	Football	Division III	Broken Clavicle/ Ketoacidosis	6
5.	Male	Caucasian	Football	Division III	Torn ACL	5
6.	Male	Caucasian	Football	Division III	Torn Labrum & Rotator Cuff	6

The first two questions that were asked to the participants were used to refresh the participants on their collegiate career and the injury they endured, since all of the participants had been removed from their sport for at least three years. This helped the athletes provide a rich and vivid description of their injury and allowed for a more complete review of their coping process to be explained. Upon reviewing the interview transcripts, the following themes were identified: 1) emotional response to the injury-reactions associated with the awareness of no longer being able to compete, 2) redefining

identity- the feelings of having to redefine who you are and how you are perceived, 3) adopting a coping strategy- finding a certain resource that helped the individual cope with the transition, and 4) unprepared to cope with the injury- feelings regarding the lack of preparedness to know how to cope with a situation as grave as a career ending injury. Two of the themes contained subthemes. The subthemes for the emotional response to injury theme contained a) initial reaction of shock, b) negative emotions, and c) acceptance. The theme adopting a coping strategy, the subthemes were a) utilizing a support system, and b) focusing attention on something else.

Emotional Response to the Injury

Each participant reported experiencing some emotional response to their injury. The responses were broken down into the subthemes of initial reactions of shock, negative emotions, and acceptance. There were some divisional differences in the emotional responses to injury. Only NCAA Division I athletes discussed experiencing an initial reaction of shock. They all reported feeling uncertain about what was happening and what the next steps would be. Participant 1 recalled his feelings right after the injury happened during competition:

“It was like the strangest feeling ever. I don’t really know how to explain it. I was like I knew something was completely wrong with it, so right then and there, on the field, I had to make the decision to take myself out of the game... things that popped into my head just like, ‘Oh my God. What just happened? What am I going to do?’ so a lot of things flash through your mind when those kind of serious injuries happen.”

Participant 2 revealed his feelings of shock after he learned of his injury:

“I asked the doctor when I would be able to play again; he kind of laughed, which is a little weird, and he says, ‘Play? I don't if you're going to be able to walk

properly again.’ So that was his way of saying like, ‘Football's done.’ And at that I just stopped and I remember thinking, ‘What am I going to do now?’”

Additionally, along with one NCAA Division III athlete, all three NCAA Division I athletes also discussed experiencing negative emotions in response to their injuries. These negative emotions included devastation, disappointment, frustration, and depression.

Participant 6 stated his feelings of depression:

“At first it was real depressing. At the time, I was pretty depressed. I realized I couldn't play again. I even tried going back my senior year. My shoulder just couldn't handle it anymore. At first it was, obviously, a depressed feeling. Every time fall rolls around, I have that slight depressed feeling because football is here.”

Participant 3 explained how she felt after trying to recover from her injury and return to play, but was not able to, due to the extent of her injury:

They wanted me to at least get 90% before I could actually get contact. Maybe a couple weeks later I took a Cybex test again, I only increased to like ... It wasn't much. At that point I got really frustrated. Mentally I struggled a lot. I wasn't expecting to just all of a sudden go dry. Whenever that hit, that's whenever really problems came into play.

The subtheme of negative emotions was supported by feelings of disappointment expressed by Participant 1:

“I gave up a little bit on my sport. I figured if I wasn't playing, I didn't have a chance to start, then I was pretty much useless and I wasn't really benefiting anyone. My work ethic started to decline a little bit and I fell into maybe a little bit of funk or kind of not a depression, but something was off to where I wasn't satisfied with where I was at... I was kind of slightly devastated at the time because all three of my roommates, we had all been competing all year and they all ended up getting drafted that same year as I would have, it was disappointing for me.”

In contrast, only one NCAA Division I athlete expressed a feeling of acceptance, while all three of the NCAA Division III athletes expressed a feeling of acceptance in regards to their injury. Most of them reported that they experienced the injury, but were able to move on relatively soon afterwards, in some cases, due to that injury experienced.

Participant 4 explained how staying connected to the team in some way helped him come to terms with not being able to continue playing:

“I was still a part of it so I got to translate my playing skills to the kids that I was helping coach while I was there. I think that helped me get over the fact that I wasn't playing anymore. My coach told me he wanted me to stay on and coach and that was something that I wanted to do. That was kind of my aspirations after college. The decision to stop playing led to this coaching position.”

Participant 5 stated that his injury actually helped him move on focus on the future:

“I realize it actually benefitted me and began my future. I was forced to focus on school and my career after college rather than football. It was an immediate "growing up" moment for me and I became okay with my decision to stop playing.”

In summary, each participant experienced an emotional response to their injury, however, each response was diverse, yet the emotions that were expressed were similar among NCAA Divisions, and were categorized into various subthemes of the theme of emotional responses to injury.

Redefining Identity

In the interviews, every participant reported experiencing a change in identity as a result of their injury. Most participants explained that they felt as though they had lost part of their identity due to no longer competing and being on their team. Many of the

participants expressed the need to redefine their once strong identity. Participant 2 explained his struggle with losing his identity as an athlete:

“I think one of the problems with that, especially from a psychological standpoint is that we tend to put our identity into what we do, as I did--I mean was 19 at the time. I thought, ‘Well, football's all I have.’ So, you've got all this publicity from outside, and you've got all these people that want to be a part of this, and as soon as it's over, you find out relatively quickly that you're really not that big of a deal as you thought you were.”

Participant 3 reported that she struggled with trying to redefine her identity while still keeping her athletic identity intact:

“I lost my identity as an athlete to some extent. I had to learn how to be a new player with my injury, because I had the struggle of trying to be someone else so then I could play. I was just trying to find my identity as far as how can I still bring the energy and my defense to the game to the team with my injury? Not being an athlete no more, that was really hard for me.”

Participant 5 mentioned being unsure of how to accept his modified identity:

“Sports were pretty much my entire life and everything else took a back seat. I was known as an athlete. When I realized I wasn't able to play football anymore, I really didn't know what I was supposed to do next. Every year it was play the football season, start basketball season, start baseball season, then train for the upcoming football season. All of a sudden I had more time on my hands and didn't know what to do with it.”

Participant 6 expressed the struggle he endured due to losing his identity as a quarterback:

“It was an adjustment. Especially at the quarterback position, you're always getting looked at and treated kind of differently, I would say. Everyone knows who you are and stuff like that. That was a real hard change to cope with.”

In contrast to other participants, participant 1 expressed feelings of eagerness to redefine his identity:

“I guess when thinking about transitioning out of a sport, I was excited to have an opportunity to be like a normal student again because I’d always been an athlete the whole time. I kind of transitioned and started having a little bit more of a social life outside of a team and meeting other people.”

The above data shows that all of the participants experienced a change in identity on their respective teams. Most of the participants had a difficult time adjusting to their new identities, while one participant welcomed the opportunity to change how people perceived him.

Adopting a Coping Strategy

When asked how participants coped with not being able to compete, every participant reported that they relied on various coping strategies. Two subthemes were found to be prominent in this theme: focusing on something else, and adopting a support system. Every participant reported that they tried to divert their attention to a different task, whether it was academics, planning their future, exercising, or a combination of these. Participant 1 explained how he focused more of his time on academics and his future:

“I always remind myself to stay focused on kind of the positive things that I was doing right. I took pride in my school work always, so I knew I had a good GPA, but I stayed focused on my grades. I just tried to stay disciplined and maintained everything that I would do otherwise if I was still playing baseball, really, so I tried to do that, and I guess trying to figure out then what my career goals would be, thinking of other things outside of sports, what I would want to do as far as a job.”

Participant 2 recalled also shifting his focus to his academics and developing his career:

“I was always very academically focused. And I interned on the church while I rehabbed; so I think it could be a lot of ways of just trying to create community, if you will. So really maybe, keeping myself busy and doing other things. I think my life had moved on, which helped me to cope. I was offered a job at a church upon graduation, and I was making decisions to move on with my life.”

Participant 3 reported that playing basketball was her coping mechanism. She recalled trying to focus on exercising and running through drills even though she was not able to play. She focused more on still being able to perform while trying to accept that she would no longer compete:

“I stayed in the gym. I really did. I was transitioning, I was ball handling and shooting, outside shooting. I could still do all that. I had me a tennis ball, 2 basketballs. I was constantly dribbling and I was constantly shooting. That helped me cope. Those moments where I had a ball in my hand.”

Participant 4 discussed how staying connected with his team helped him cope:

“I think it was nice because I was still part of the football program, I was just on the coaching side now. It wasn't like I just stopped playing and then all of a sudden football left, like left my life. I was still a part of it so I got to translate my playing skills to the kids that I was helping coach while I was there, which helped me focus on finding a job as a coach. I think that helped me get over the fact that I wasn't playing anymore.”

Participant 6 also focused on academics and his future:

“As I started thinking about it, I realized I could start focusing on school and internships and stuff like that. Just other extracurriculars I could get involved in to help my future. That following year, I was able to get a few internships and really help out my future.”

Four out of six participants mentioned the presence of a support system helped them cope with their transition out of sport. The results were even divisionally speaking, with two

athletes from each division reporting a strong support system. These support systems included family, friends, coaches, and athletic trainers. Participant 1 recalled his support system:

“Mainly my parents. I talked to them a lot and they told me choose whatever or follow whatever your heart wants to do and so they kind of left the decision up to me. But they said ‘just make sure that you’re doing it for the right reasons and all that.’ They were definitely a source, and then again, one of my best friends was the guy from Penn State who had that Tommy John before, so I talked to him about it all the time, so I had some good peer support there.”

Participant 3 stated the importance and the effect her teammates had on her coping abilities:

“I guess my teammates ... They was really there for me as far as, cause like I said, a bunch of them had been through a surgery or a time period where they had to sit out. They put me in charge of stuff. When they was free play, I was the ref and I select the teams. I really am so thankful for my teammates. They are awesome. They was awesome during that time and they was very encouraging.”

Participant 5 stated “my trainers, coaches, my parents, and friends provided me words of encouragement to get through the surgery and rehabilitation.” Participant 6 explained the multiple support systems that he utilized:

“I have a pretty big Italian family. I'm real close with my parents, my grandparents, brothers. I had a good core group of friends. Even while some of my friends were at football, I was able to still hang out with some other guys. Even if they went and played basketball, I was able to go on the other court and use my left arm while I was in rehab. I guess my support system definitely was family and friends at that point. I definitely think it wouldn't have been as easy if I didn't have them there to help. To be honest, what also helped was ... I guess maybe just finding other groups outside of the football team. I was able to make a lot of friends at my school. It's a smaller school. It wasn't too hard to find a good group of people.”

All of the participants reported that focusing on a different area of their lives helped them to cope with their transition out of sport. The majority of participants also reported that a strong support system helped make the transition easier.

Feelings of Unpreparedness to Cope with Injury and Transition

Four out of the six participants freely expressed that they did not feel prepared to cope with their transition out of sport. The results were evenly split, with two participants from each NCAA Division reporting feelings of unpreparedness. Overall, participants expressed a concern of not being ready for a sudden transition out of sport. Participant 1 felt as though he was not prepared for this transition:

“I wasn’t really prepared to effectively cope with it. I didn’t know how to cope. I think I could have done a much better job of dealing with it. I wish I would have coped. I say wish, but I think I could have probably coped a little bit better than I did.”

Participant 2 explained that there is a lack of acknowledgement by the coaching staff of the topic of becoming injured, which caused him to never consider the likelihood of the event:

“I don't think anybody ever talked about it. Actually, in a lot of ways, it was not an option to the coaches, like ‘It's okay, you're going to get better. You're going to do this.’ How much of that's realistic? And how much of that's just them being coaches? It's kind of what you have to balance. Because in their mind it's like you're going to get better or we don't really have any use for you.”

Participant 4 explained that he also felt unprepared for this transition:

“I wasn’t ready for that transition. I didn't think that that was going to be the end of it so I just kind of ... I kind of just made the decision and stuck with it, instead of having to cope with my decision and make my decision, it was kind of just made it, done.”

Participant 6 discussed the abruptness of a career-ending injury, which affected how prepared he felt for the transition out of sport:

“I was not prepared to deal with that. Nobody can be. Especially when it's so sudden like that. It takes a while to sink in. That next year, they all entered football camp a couple weeks early. When I got to school, they're all still hanging out and had all their inside little jokes and stuff like that. I think that's when it hurt more, and I wasn’t expecting it. It really hit me that I wasn't really going to play.”

This theme consists of the concerns presented by the participants regarding not feeling prepared for the transition out of sport. Participants attributed not being prepared for this transition to the sudden onset of injury, not knowing how to cope, and not having the issue addressed by the coaching staff.

CHAPTER 4

DISCUSSION

The current study examined the coping styles and strategies of NCAA athletes who have sustained a career ending injury, and also compared and contrasted the coping styles and strategies of NCAA Division I and NCAA Division III athletes who have sustained a career ending injury. Transcribed interviews were studied and themes were extracted to describe how athletes reacted to not being able to complete after sustaining a career ending injury, and how the athletes coped with transitioning out of their sport. This section will compare and contrast those themes individually with current research, and recommendations for future research will also be discussed.

Emotional Response to Injury

The theme of emotional response to injury was supported by all of the participants in the study. The second stage of the coping process in competitive sport model (Anshel et al., 1997) is called cognitive appraisal. This stage is where the individual interprets the stimulus as positive or negative. Individuals who appraise situations as positive often are more open to accepting the situation, or may view the even as a challenge for them to overcome. An individual may also view their situation as negative, and may feel threatened by the event. The individual can also choose to ignore the stimulus completely, thus resulting in not coping with the stimulus, and remaining stressed. It is important that individuals appraise the event that they encounter in order to effectively cope and reduce any stress that is being experienced. The participants in this study

appraised the event in various ways, which is further displayed in the subthemes for this theme.

All of the NCAA Division I athletes appraised the event as a threat and therefore experienced initial feelings of shock. These athletes, along with one NCAA Division III athlete, experienced negative emotions including disappointment, worry, depression, and frustration. Anshel (2001) explains that when viewing the event as a threat, these feelings are common in most individuals. The initial feelings of shock also support the phases of adjustment model (Tunick et al., 2002). Many individuals experience confusion along with feelings of shock, and are worried about what will happen to them in the future.

There were differences present in how the athletes in each NCAA Division appraised the event. The last subtheme, feelings of acceptance, were experienced by all of the NCAA Division III athletes, and only one NCAA Division I athlete. The NCAA Division I athletes saw the event as more threatening, while the NCAA Division III athletes were more ready to accept the situation. Lazarus (1993) argued that only events that are appraised as stressful justify the use of coping strategies, however, the results in this study evidenced the use of coping strategies by individuals that have experienced feelings of acceptance towards the event. These findings suggest that even if an individual appraises the event as stressful, but also appraises the event as challenging, or accepts the situation, the individual still utilizes some form of coping strategy. This is important for sport psychologists to be aware of; professionals in the field should remember that each athlete is diverse and will react to situations differently, and therefore generalizations should not be made regarding the reason for utilization of certain coping strategies.

Redefining Identity

The athletes in the study felt as though their identity had been altered due to their injury and the transition out of sport, and they reported feeling as though they needed to redefine who they were and how they were seen by others. The fact that all participants, regardless of NCAA Division, experienced a change in identity supports the findings of Sturm et al. (2011) that athletes have similar perspectives on being an athlete, regardless of NCAA Divisional status. Every participant reported losing a piece of their identity, and having to rebuild and change their image. There is still conflicting research regarding the athletic identities of NCAA Division I and NCAA Division III athletes. Regardless of level of competition, athletes have to be disciplined, exemplify leadership qualities, and hold the responsibility of representing their team as well as their school. These factors contribute to an athlete's identity, and if athletes at any level have the opportunity to have these qualities, they may be more inclined to relate more to being an athlete, therefore feeling more of a loss of identity when forced to transition out of their sport. Additional research on the topic of athletic identity in NCAA Division I and NCAA Division III athletes could elaborate as to whether or not on if the status of an athlete does in fact affect how they handle stressful and/or unexpected situations, such as a transition out of sport.

Adopting a Coping Strategy

When choosing to cope with a stressful situation, an individual engages in certain activities to help alleviate that experienced stress. These activities are described as coping strategies in the coping process in competitive sport model (Anshel et al., 1997). All six participants adopted coping strategies to help them transition out of their sport. Most

participants focused fully on something else, including academics and developing their future, while some participants also sought out a support system, including familial and/or social. Anshel (2001) also noted that social and familial support is essential in dealing with stress in sport.

Focusing attention on another activity and seeking out a support system are both behavioral based coping strategies. Support systems can be classified as approach behavioral coping or avoidance behavioral coping, while focusing fully on another activity or task is classified as avoidance behavioral coping. One participant did mention exercising as a way of coping, which is also classified as an avoidance behavior coping strategy. This finding does not support the conclusions of Gardner and Moore (2006) who suggested both behavior- and mental-coping strategies are used by athletes who have suffered injuries. This study does only have six participants, which, when comparing strategies used nationwide is a very small number. It should still be emphasized however, that these six individuals did not mention using any mental-coping strategies. This may suggest that mental-coping strategies are not being utilized. Further research can be done to ascertain if mental-coping strategies are used as commonly as behavioral-coping strategies; which ones are used; and the reason that they are used. This information could further explain the differences in the two coping strategies, the preference of one coping strategy over the other, and the reason for this, which would provide sport psychologists with information on whether it is beneficial to suggest and implement more mental-coping strategies to athletes.

Feelings of Unpreparedness to Cope with Injury and Transition

Four out of six participants admitted that they did not feel prepared to handle their transition out of sport. This finding emphasizes the importance of education on the matter of transitions and coping. Transitions are important during any stage of life (Schlossberg, 1981) and the more information that can be disseminated to athletes while they are still in school can better prepare them for transitions they will encounter during their competitive sport careers as well as throughout the rest of their lives.

Conclusions

The current study investigated the coping styles and strategies utilized by NCAA Division I and NCAA Division III athletes who have endured a career injury. Emerging themes included a) emotional response to the injury (initial feelings of shock, negative emotions, and feelings of acceptance), b) redefining identity, c) adopting a coping strategy (relying on a support system, and focusing attention on other things), and d) feelings of unpreparedness to cope with injury and transition. When reviewing previous research on injury and coping, both similarities and differences were found when comparing the current research. Multiple theories and models were supported, further strengthening the concept of individuality and diversity among individuals. The process taken by each individual to cope with transitions is not going to fit perfectly into one model, but may adopt portions from various models and theories. This supports the idea that coping is complex and multidimensional. While many models for coping have been created, a limited number have been introduced to and used in the realm of sport psychology.

This study did present some limitations. There were only three sports represented in this sample, and these sports are three of the most popular in the country. There were

also five males in the study and only one female who participated. A more balanced sample with a variety of sports and an equal gender distribution may have yielded different results.

One main area of interest based on the results of this study is the possible creation and implementation of programs and interventions that will help collegiate athletes better prepare for the end of their sport career and have a smoother transition out of sport. At some point, the end of a competitive sport career is inevitable, regardless if it is presented as an anticipated or an unanticipated transition out of sport. Introducing athletes to the idea of preparing them for that moment could benefit athletes by reducing the negative emotional responses that may be experienced when transitioning out of sport. An emphasis can be placed on mental-coping strategies, such as positive self-talk, to assist athletes in keeping a clear and focused mind while processing their emotions and effects of their transition.

Based on this study, sport psychology consultants can achieve a better understanding of the different coping strategies used by athletes when experiencing a stressful event, and work to implement educational programs and interventions that will raise awareness of potential hazards, such as enduring an severe injury, which can result in no longer being able to compete and transitioning out of sport. In addition to consultants, this information can benefit coaching staffs as well as athletic directors who are in charge of helping athletes prosper and stay healthy, both physically and mentally. An athlete could be forced to transition out of sport at any moment, and information readily available on how to understand this stressful experience can help the athlete cope

with emotions experience. This information can also help the athlete accept his retirement out of sport and possibly eliminate negative emotions, such as depression.

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APPENDIX A

Purpose Statement

The purpose of this study is twofold. The first purpose is to qualitatively examine the coping styles and strategies of NCAA athletes who have sustained a career ending injury. The second purpose will be to compare and contrast the coping styles and strategies of Division I and Division III athletes who have sustained a career ending injury by means of qualitative research.

Research Questions

1. What are the coping strategies of NCAA DIVISION I and NCAA Division III athletes who experienced a career ending injury?
2. What are the differences in coping strategies of NCAA DIVISION I and NCAA Division III athletes who experienced a career ending injury?

Limitations

1. Some information may have been forgotten and not provided due to injuries happening in the past.
2. A limited range of sports was represented in this study.
3. There were more males than females in the study.

Delimitations

1. A snowball sample was used to recruit participants.
2. Participants were out of competition for at least a year.
3. Participants were from NCAA Division I and Division III institutions.

Assumptions

1. Participants will be honest and will fully share their whole experience.
2. Participants were able to provide the appropriate information.

Definitions

1. Career Ending Injury- an injury that prevents an athlete from returning to competition (Anshel, 2012)
2. Athletic Identity- the extent to which an individual sees himself as an athlete (Brewer, Van Raalte, & Linder, 1993, p. 237)
3. Coping- dealing with a situation that causes an individual to experience stress (Lazarus & Folkman, 1984, p.141).
4. Coping Styles- a person's preference of using a certain type of coping strategy (Anshel, Williams, & Hodge, 1997).
5. Approach Coping Style- dealing with the stressful situation directly (Anshel et al., 2001)
6. Avoidance Coping Style- problem is solved by avoiding the situation (Anshel et al., 2001)
7. Coping Strategy- the type of actions that you take to deal with the stressful situation (Anshel et al., 2001)
8. Problem Focused Coping- changing the problem that is causing the stress (Anshel et al., 2001)
9. Emotion Focused Coping- controlling the emotions that one experiences when reacting to stress (Anshel et al., 2001)

APPENDIX B

REVIEW OF LITERATURE

AN EXAMINATION OF COPING WITH CAREER ENDING INJURIES

AN NCAA DIVISION I AND NCAA DIVISION III COMPARISON

Brock, S. C., & Kleiber, D. A. (1994). Narrative in medicine: The stories of elite college athletes' career-ending injuries. *Qualitative Health Research*, 4(4), 411.

Researchers used a narrative analytic method in this qualitative study to ask participants about events and feelings that they experienced before, during, and after their injury. Participants showed a decrease in self-esteem as well as a loss of identity. When an athlete is injured he loses his status and therefore drops on the social totem pole.

This research applies to my topic because it highlights some of the issues that athletes endure when they experience an injury that forces them to stop competing. I want to explore how athletes overcome these issues and regain the self confidence they had while they were performing.

Evans, L., & Hardy, L. (1995). Sport injury and grief responses: A review. *Journal of Sport and Exercise Psychology*, 17, 227-245.

The purpose of this study was to review literature involving the emotions that injured athletes experience and their responses to these emotions. The authors wanted to highlight grief and explain the process that a person goes through while grieving, grief models, and emotions that accompany grief. This article is beneficial to the research that I will be conducting because a lot of athletes do grieve the loss of being an athlete. It is important that I know the accompanying emotions of grief and the feelings that athletes endure so that I may attempt to put myself in the athletes' shoes to obtain an understanding of what they went through when they were forced to retire from sport.

Fisher, L., & Wrisberg, C. (2005). The "Zen" of Career-Ending-Injury Rehabilitation. *Athletic Therapy Today*, 10(3), 44-45.

This article was written mainly to target athletic trainers and help them become aware of things they can do to help their athletes cope with injuries that are career ending. Fisher explains the views held by David Richo that need to be accepted as things we cannot change, including "everything changes and ends, things do not

always go according to plan, life is not always fair, pain is part of life, and people are not loving and loyal all the time.” The five principles as Fisher calls them helps the athlete to realize that trying to change scenarios that cannot be changed will only cause more harm.

Even though this article is directed more at athletic trainers, it is beneficial to sport psychologists as well, because many athletes seek consultation when they find out that they can no longer compete. These five principles could be explored to see if any or all are adopted by injured athletes on their own. These attitudes could also be incorporated into a coping intervention that could be used with athletes who are suffering any injury or hardship.

Ford, I. W., & Gordon, S. (1999). COPING WITH SPORT INJURY: RESOURCE LOSS AND THE ROLE OF SOCIAL SUPPORT. *Journal Of Personal & Interpersonal Loss*, 4(3), 243.

Ford and Gordon sought to examine the emotions felt by athletes regarding their rehabilitation, their experience of retiring, and outside assistance that aided in their transitioning out of sport. Researchers interviewed four participants, 2 male and 2 female, using a semi-structured interview. The interviews were transcribed and tagged for themes. Three main themes emerged: resources lost, resources gained, and social support. Participants explained many resources were lost as a result of injury and necessary surgery, including physical health, finances, independence, and achievements. However, participants also noted that social roles and recreational activity were gained from their retirement from sport. Regarding social support, participants agreed that reassurance, encouragement, and advice given helped the athletes to better cope with their situation and stress experienced.

This was a qualitative study that examined specific points of how an athlete thinks and what they are feeling after a career ending injury. These are many points that may be mentioned by my participants when I interview them regarding their retirement from sport. Social support is important to examine because this research suggests that a strong social support system better helped the athletes cope with having to leave the realm of sport.

Grove, J. R., Lavalley, D., & Gordon, S. (1997). Coping with retirement from sport: The influence of athletic identity. *Journal of Applied Sport Psychology*, 9(2), 191-203.

This study aimed to collect information regarding how athletes cope with a career transition, to explore how sport-role identification and the quality of adjustment

related to one another, and to study athletic identity of athletes and its relation to the coping strategies that athletes use. Participants were 48 retired Australian athletes who were asked to complete the Athletic Identity Measurement Scale (AIMS) as well as the COPE inventory to assess both athletes' views on their athletic identities and also assess which coping strategies were more widely used by athletes. Results showed that most athletes used acceptance, positive reinterpretation and growth, and active coping to cope with their injuries. The researchers also found that athletes scoring high on the AIMS used coping strategies such as venting, mental disengagement, and behavioral disengagement. It was also noticed that social support during the athlete's transition process was very important to the athletes who scored high on the AIMS.

This study used a quantitative approach to collecting information about coping strategies in athletes. The AIMS and COPE inventories could be helpful in collecting some of the same information if I decide I want to choose a mixed methodology approach. I think that it was interesting that scoring higher on the AIMS suggested that some athletes used specific coping strategies, and that may be something to investigate in the future. Having a strong social support system was also mentioned as being important to athletes. I agree with this finding and I took note and can look for the support that athletes had in my study to see if it helped them to be where they are today.

Gould, D., Udry, E., Bridges, D., & Beck, L. (1997). Coping with season-ending injuries. *Sport Psychologist, 11*(4), 379-399.

This study sought to examine different coping methods used by athletes who suffered from a season ending injury. Participants were twenty one skiers from the United States Ski Team who sustained injuries that caused them to miss a season. Participants were interviewed to collect information including demographic information, cause of injury, feelings and thoughts relating to becoming injured, and coping mechanisms that were utilized during the recovery process. Results showed that the majority of the skiers used problem focused coping to deal with their injuries.

This study touches upon the importance of coping strategies in the road to recovery from an injury. The athletes in this study suffered a season ending injury and were able to return to sports. It would be interesting to examine coping strategies of athletes who are unable to return to play and compare them with the strategies portrayed in this study to view similarities and differences.

Heil, J. (1993). *Psychology of sport injury*. Champaign, IL: Human Kinetics Publishers.

In his book, Heil addresses the issue of career ending injuries in a few places. Heil explains that a career ending injury can be one of the worst ways to end a sport career. Some issues that Heil addresses include the fact that many athletes are so involved in their sport career that they are ill prepared for the real world when they suddenly are forced to transition into it from their sport world. He goes on to explain that athletes in these situations can benefit greatly from counseling where they can learn to cope with their injury and develop an understanding of why it happened and how sport in general has helped the athletes develop skills that they can use in the real world.

I think that the information in this book regarding career ending injuries can be beneficial to my literature review and the introduction to my thesis. Many athletes put a lot of time and effort into their sport and they rely on the hope that they will play professionally. When this dream is not foreseeable anymore due to an athlete becoming injured, many athletes do have trouble adjusting to the real world and many become overwhelmed. I want to talk to athletes who have been in this situation and have maybe been overwhelmed by the pressures of the real world and talk to them about how they dealt with those issues.

Kerr, G., & Dacyshyn, A. (2000). The retirement experiences of elite, female gymnasts. *Journal of Applied Sport Psychology, 12*, 115-133.

The purpose of this study was to examine the experiences that elite gymnasts had when retiring from the sport. Seven elite gymnasts were the participants in this qualitative study, most of these gymnasts had voluntarily retired while one had been forced to retire due to injury. Interviews were conducted and then broken up into themes; each athlete talked about the transition process, which was further broken down into retirement, nowhere land, and new beginnings. All participants felt a loss of identity after they retired (nowhere land) and many struggled with trying to find themselves. Some of the participants were able to transition to the new beginnings phase and began immersing themselves back into the sport in different ways (coaching, limited performing, etc.)

This study looks at participants that left their sport voluntarily but still struggled with identity issues. Other research would suggest that these individuals would have an easier time adjusting because they accepted their retirement, but the interviews in this study really illustrate that that view is not always what athletes encounter. Some of the athletes were able to give back to the sport and remain connected in some way. This is an aspect that I want to examine as well; I want to

see if any athletes that were forced to retire stay connected to their sport in some way, whether it is through coaching, helping out at sport clinics, announcing, etc. I personally think that staying connected with the sport even after you cannot play it anymore provides some level of comfort to the athlete.

Kleiber, D. A., & Brock, S. C. (1992). The effect of career-ending injuries on the subsequent well-being of elite college athletes. *Sociology of Sport Journal*, 9(1), 70-75.

Researchers in this study wanted to examine the well being of an athlete at least five years after they had experienced a career ending injury. Participants were surveyed and divided into groups of noninjured and injured athletes. From there each of the two groups were further divided into those who expressed a strong interest in competing professionally and those who did not. Researchers looked at life satisfaction and self esteem, and used the Life Satisfaction Inventory-A (LSIA) and the Rosenberg 10-item self-esteem scale to measure these variables, respectively. Results indicated that athletes who had suffered a career ending injury experienced a decrease in life satisfaction. More specifically, injured athletes who had high hopes for competing professionally showed the lowest scores on the life satisfaction and self-esteem scales out of all of the groups.

This quantitative research looked at two specific pieces of an athlete: their self-esteem and their satisfaction in life. Both of these attributes can be high while the athlete is competing, however, once the athlete can no longer play due to injury, he may believe he is viewed differently. These are good attributes to keep in mind while conducting a qualitative study; I can examine the interviews and look for decreases in both self-esteem and life satisfaction to see if either have increased any or further decreased.

Kleiber, D. D., Greendorfer, S. S., Blinde, E. E., & Samdahl, D. D. (1987). Quality of exit from university sports and life satisfaction in early adulthood. *Sociology Of Sport Journal*, 4(1), 28-36.

Researchers sent surveys to over 1,000 male athletes who had played basketball and football, and they received a little over 400 surveys back. The survey was a questionnaire which identified three variables to be examined: any special recognition received during their sport career, whether or not the athlete sustained a career ending injury, and if the athlete was a starter on their team or not. All of these variables were compared to life satisfaction, which was measured by the Life Satisfaction Index-A. Results from a three way ANOVA showed that the

main effect on life satisfaction was from a career ending injury. The other variables did not show any significant contributions to life satisfaction.

This study had a noted limitation of using only male athletes from large Midwestern universities. This is a small sample and could be broadened to examine southern and western coast athletes as well as female athletes from these regions. However, the suffering of a career ending injury ultimately affects an athlete and decreases their satisfaction with their career and life overall. Perhaps in other areas of the country the other variables examined may have an effect on life satisfaction. It is good to keep in mind for my study that these are issues that sparked someone's interest and could potentially be mentioned in interviews that I will be conducting.

Lavallee, D., Grove, J. R., & Gordon, S. (1997). The causes of career termination from sport and their relationship to post-retirement adjustment among elite-amateur athletes in Australia. *Australian Psychologist*, 32(2), 131-135.

This study focused on the athlete's cause for retiring from sport and their adjustment to this decision. Grove and Gordon also wanted to search for any other issues for athletes who were having problems adjusting to their retirement, including emotional, financial and occupational issues. 48 retired athletes were surveyed using the Revised Causal Dimension Scale (CDSII) which required athletes to explain their decision for retiring from sport and also required them to answer questions regarding control, stability, and locus of causality. The researchers found that most athletes retired due to injury, age, deselection from a team, or a voluntary withdrawal from the sport. Those who voluntarily chose to stop competing showed higher levels of personal control than those who involuntarily retired. The research also suggested that athletes who involuntarily retire may be more susceptible to experience distress psychologically.

One of the limitations of this study that was brought to the readers' attention was that most of the athletes had been retired for just under three and a half years on average. The time in between when an athlete is forced to retire and the time when the athlete is interviewed about the situation can have an effect on the response. An athlete that is interviewed one month after an injury may feel very differently than an athlete who had been injured for an entire year and then interviewed. Athletes may have a hard time adjusting to a life without sports, or they may find ways to cope with the missing piece that they once had.

Raalte, J. V., & Andersen, M. B. (2007). When sport psychology consulting is a means to an end(ing): roles and agendas when helping athletes leave their sports. *Sport Psychologist*, 21(2), 227-242.

This article provided really helpful insight for sport psychologists on how to counsel athletes who are retiring from competition. There is a brief paragraph regarding ending a sport career, and a few articles are mentioned. Before interviewing an athlete about their retirement from sport, I think it is important for the sport psychologist or interviewer etc. to have an idea about what the athlete went through or is currently going through. If the interviewer is prepared, then there are less surprises and judgments made in front of the athlete. This helps to maintain a good relationship with the athlete throughout the interview so that as much information as possible can be disclosed comfortably by the athlete.

Rapp, C. M. (2009). Understanding the career-ending injury [electronic resource]: A phenomenological analysis/by Christina M. Rapp.

This researcher took a phenomenological approach and interviewed participants to gain a better understanding of the experience an athlete has when they become injured and cannot return to sports. Five participants were interviewed, all at the professional level, and they were asked one question; “tell me about your experience with an injury that ultimately ended your playing career.” The interviews were transcribed and broken down into themes: emotional response, change, coping, and current state. All four themes were portrayed by the participants. Subthemes were also created to explore each broad theme and specify how and what the participants were feeling at the time of their injury.

This study provides a great example of how a qualitative research study should be set up and conducted. Each step that the researcher took was explained clearly. The themes that were identified will most likely be themes that I may see in my interviews, and the subthemes give me an idea of what I should look for in the transcripts from my participants. The participants in this study had played at the professional level, however, athletes of any level can injure themselves and experience similar feelings to those explained in this study, and I want to look at how much of a difference there is in coping strategies that are used with professional athletes in comparison to collegiate athletes.

Soyer, F. (2012). Relationship between coping strategies with stress and sport confidence. *Healthmed*, 6(4), 1315-1326.

This study examined the relationship between confidence and stress in athletes. Most athletes used problem or emotion focused coping to deal with the stressors they experience in the realm of sports. Confidence is one of the main aspects of psychological well being in athletes. The researcher used the COPE inventory and the Sport Confidence Inventory to examine both sport confidence and coping strategies used. Results showed that there was a positive relationship between sports confidence and coping with stress. The results showed that males were more likely to use problem focused coping while females used emotion focused coping more often.

The research in this study strengthens the idea that everyone copes differently and uses various coping strategies in order to deal with stressors. Results showed that the higher the sports confidence of an athlete, the more capable the athlete was of utilizing coping strategies. This may show significance when comparing Division I and Division II athletes; Division I athletes may have more sports confidence because they are competing on a high level and their status on the team is well known, whereas Division III athletes may just be playing to stay active, or because they enjoy the game, not because their athletic status is prestigious or because the team is successful in competition.

Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology Of Sport & Exercise*, 8(1), 101-118.

Former athletes from Sweden and France were asked to complete the Retirement from Sports survey. The Retirement from Sports survey asked questions regarding many aspects of an athlete's career, including but not limited to an athlete's identity while still competing, how satisfied athletes were with their sports career, reasons for retirement, whether retirement was voluntary or not, emotional reactions to retirement, coping strategies used, duration of the transition, and general life satisfaction. The results of ANOVAs showed that French and Swedish athletes differed in which coping strategies they used. Swedish athletes also seemed to be more satisfied with life after career termination than French athletes. Although there was less satisfaction for athletic career in athletes who involuntarily retired across the board, the French athletes in this category had even lower satisfaction for their athletic careers than the Swedish athletes did.

This study is great at bringing the issue of cross-cultural differences to hand. This study shows that there are differences in athletes from different cultural backgrounds and for that reason they handle issues such as retirement from sport very differently. This is a good study to keep in mind because I do not know who

exactly my participants will be at this time, however, there is the chance that I will have a diverse sample of participants. I need to remember that some cultures may view involuntary retirement from sport as a disappointment and it may weigh more heavily on that specific athlete than it would on another athlete.

Stoltenburg, A. L., Kamphoff, C. S., & Bremer, K. L. (2011). Transitioning out of sport: the psychosocial effects of collegiate athletes' career-ending injuries. *Athletic Insight: The Online Journal of Sport Psychology*, 13(2).

This article examined the issues that an athlete faces when transitioning out of a sport due to a career ending injury. Athletes from Division I and Division II colleges were selected to participate in semi-structured interviews in which they were asked about their experience with a career ending injury and the transition following the injury. Researchers found that athletes who had sustained a career ending injury experienced difficulties with academics, tried to remain connected to their team and sport, relied on a strong social support system, and had done little if any preplanning for after their sport career was over.

This study provides a great deal of information regarding different aspects of transitioning out of sport. The researchers were able to gather data on what experiences athletes have during this time, which can contribute to my study. I am familiar now with what athletes struggle with after experiencing a career ending injury, but I want to explore how they overcome these experiences.

Sturm, J. C., Feltz, D. L., & Gilson, T. A. (2011). A comparison of athlete and student identity for Division I and Division III athletes. *Journal of Sport Behavior*, 34(3), 295-306.

This study investigated the differences in Division I and Division III collegiate athletes, particularly in the areas of athlete and student identities. Participants included 66 Division I athletes and 122 Division III athletes. Participants were issued the Athlete Identity Measurement Scale (AIMS) as well as the Measure of Student Identity (MSI) to measure both athletic identity and student identity. Results indicated that athletic identity was negative correlated with student identity for both Division I and Division III collegiate athletes. Sturm et. al pointed out that females, regardless of division level, had a lower athlete identity and higher student identity scores compared to males.

The results of this study suggest that Division I athletes are very similar to Division III athletes. This could remain true regarding reactions to career ending injuries and how athletes at different levels cope with this issue. Perhaps if

division level is not an issue, then most collegiate athletes would have a difficult time coping with a career ending injury, regardless of a chance to play professionally or not.

APPENDIX C

IRB APPROVAL

Research Compliance Combined Cover Page

Georgia Southern University

Application for Research Approval

<i>Investigator Information:</i>		
Name of Principal Investigator: Hayley Marks	Phone: (240) 538-8137	For Office Use Only: Protocol ID: _____ Date Received:
Email: hm01672@georgiasouthern.edu (Note: Georgia southern email addresses will be used for correspondance.)	<input type="checkbox"/> Faculty; <input type="checkbox"/> Doctoral; <input type="checkbox"/> Specialist; <input checked="" type="checkbox"/> Masters <input type="checkbox"/> Undergraduate	
Department Name and PO Box: Department of Health & Kinesiology P.O. Box 8076		
Name(s) of Co-Investiagators: Dr. Daniel Czech (F) [Advisor]; Dr. Brandonn Harris (F); Dr. Trey Burdette (F)	Phone: 912/478-5267 (Czech); 912-478-7900 (Harris); 912/478-7323 (Burdette)	
Email addresses: drczech@georgiasouthern.edu ; bharris@georgiasouthern.edu ; gburdette@georgiasouthern.edu	<input checked="" type="checkbox"/> Faculty; <input type="checkbox"/> Doctoral; <input type="checkbox"/> Specialist; <input type="checkbox"/> Masters <input type="checkbox"/> Undergraduate (If multiple: identify by initial letter behind name. E.g., F for faculty)	

Department Name and PO Box: Applies to all of the Faculty members listed above: Department of Health & Kinesiology P.O. Box 8076	
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Personnel and/or Institutions Outside of Georgia Southern University involved in this research (Attach training certification):

Project Information: (Note: funded project titles must match grant title)

Title: An Examination of Coping with Career Ending Injuries- An NCAA Division I and III Comparison

Brief (less than 50 words) Project Summary: This study looks to qualitatively explore the coping styles and strategies of NCAA Division I and Division III athletes who have endured a career ending injury. This study will also compare these coping styles and strategies of NCAA Division I athletes to those of NCAA Division III athletes.

Compliance Information:

Please indicate which of the following will be used in your research: (application may be submitted simultaneously

Human Subjects (Complete Section A: Human Subjects below)

Care and Use of Vertebrate Animals (Complete Section B: Care and Use of Vertebrate Animals below)

Biohazards (Complete Section C: Biohazards below)

<input type="checkbox"/> Do you or any investigator on this project have a financial interest in the subjects, study outcome or project sponsor. (A disclosed conflict of interest will not preclude approval. An undisclosed conflict of interest will result in disciplinary action.).	
Project Start Date: Jan 1, 2014 End Date: June 1, 2014 (no more than 1 year) Anticipated renewals <input type="checkbox"/> year 2 <input type="checkbox"/> year 3	Check one: <input checked="" type="checkbox"/> New submission <input type="checkbox"/> Resubmission # _____
Funding Source: <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Internal GSU <input checked="" type="checkbox"/> Self-funded/non-funded	
Funding Agency: <input checked="" type="checkbox"/> Not Applicable	

Section A: Human Subjects <input type="checkbox"/> Not Applicable	
Number of Subjects (Maximum) 10	Date of IRB education completion: 9/18/2012 (attach copy of completion certificate)
<i>Purpose of Research: (Check all that apply)</i> <input checked="" type="checkbox"/> Publication/use in thesis/dissertation <input checked="" type="checkbox"/> Publication (journal, book, etc.) <input checked="" type="checkbox"/> Poster/presentation to a scientific audience <input type="checkbox"/> Completion of a class project <input type="checkbox"/> Presentation to GSU audience only <input type="checkbox"/> Presentation in outside of GSU <input type="checkbox"/> Results will not be published <input type="checkbox"/> Other	<i>Please indicate if the following are included in the study (Check all that apply):</i> <input checked="" type="checkbox"/> Informed Consent Document <input type="checkbox"/> Greater than minimal risk <input type="checkbox"/> Research Involving Minors <input type="checkbox"/> Deception <input checked="" type="checkbox"/> Generalizable knowledge (results are intended to be published) <input type="checkbox"/> Survey Research <input type="checkbox"/> At Risk Populations (prisoners, children, pregnant women, etc) <input checked="" type="checkbox"/> Video or Audio Tapes <input type="checkbox"/> Medical Procedures, including exercise, administering drugs/dietary supplements, and other procedures

Section B: Care and Use of Vertebrate Animals Not Applicable

<i>Purpose of use/care of animals:</i>	<i>Please indicate if the following are included in the study:</i>
<input type="checkbox"/> Research <input type="checkbox"/> Teaching <input type="checkbox"/> Demo only <input type="checkbox"/> Student participation in faculty work <input type="checkbox"/> Class Project <input type="checkbox"/> Exhibition <input type="checkbox"/> Display	<input type="checkbox"/> Physical intervention with vertebrate animals <input type="checkbox"/> Housing of vertebrate animals <input type="checkbox"/> Euthanasia of vertebrate animals <input type="checkbox"/> Use of sedation, analgesia, or anesthesia <input type="checkbox"/> Surgery <input type="checkbox"/> Farm animals for biomedical research (e.g., diseases, organs, etc.) <input type="checkbox"/> Farm animals for agricultural research (e.g., food/fiber production, etc.) <input type="checkbox"/> Observation of vertebrate animals in their natural setting

Section C: Biological Research Not Applicable Submitted Separately

<i>Biosafety Level:</i>	<i>Please indicate if the following are included in the study:</i>
<input type="checkbox"/> Exempt <input type="checkbox"/> BSL 1 <input type="checkbox"/> BSL 2 <input type="checkbox"/> BSL 3	<input type="checkbox"/> Use of rDNA <input type="checkbox"/> Non native/invasive plant species <input type="checkbox"/> Last EHS lab safety inspection date: <u> Attach Report </u> <input type="checkbox"/> Last IBC biosafety lab inspection date: <u> Attach Report </u>

<i>Signature of Applicant(s): (PI, CoPI)</i>	<i>Date:</i>
X	

If student project please complete research advisor's information below (note that advisor signature must be received before application will be reviewed.):

Research Advisor's Name: Dr. Daniel Czech	Advisor's E-mail: drczech@georgiasouthern.edu
Advisor's Phone: 912-478-5267	Advisor's Department: Department of Health & Kinesiology P.O. Box: 8076
If student project - Signature of faculty member who is responsible for the student conducting research. If faculty project – Signature of department head or chair.	
<i>By signing this cover page I acknowledge that I have reviewed and approved this protocol for scientific merit, rational and significance. I further acknowledge that I approve the ethical basis for the study.</i>	
Signature of Committee Chair/Research Advisor (if student) Department Chair(if faculty): _____ Date: _____	
X	

Please submit this protocol to the Georgia Southern University Research Compliance Office, c/o The Office of Research Services & Sponsored Programs, P.O. Box 8005. The application should contain all required documents specific to the committee to which you are applying. Questions or comments can be directed to (912)478-5465 or IRB@georgiasouthern.edu Fax 912-478-0719.

For optional email submission: Save the application forms to your computer. Complete the forms and name them beginning with your last name and first initial. Email the entire submission package to IRB@georgiasouthern.edu in a single email. Original signature pages may follow by mail or fax. (Signatures located on cover page, certification of investigator responsibilities and last page of application where certifications required.)

GEORGIA SOUTHERN UNIVERSITY INSTITUTIONAL REVIEW BOARD

INSTRUCTIONS FOR PREPARATION OF PROPOSAL NARRATIVE

Instructions: *Please respond to the following as clearly as possible. The Narrative should include a step by step plan of how you will obtain your subjects, conduct the research and analyze the data. Make sure the narrative clearly explains aspects of the methodology that provide protections for your human subjects. Your narrative should be written to be read and understood by a general audience who does not have prior knowledge of your research and by committee members who may not be expert in your specific field of research. Your reviewers will only have the information you provide in your application. Explain any technical terms, jargon or acronyms. The narrative is a part of the complete application.*

The application may be submitted electronically at irb@georgisouthern.edu (email attachment) or sent to the Office of Research Services and Sponsored Programs, at P. O. Box 8005, Statesboro, GA 30460, fax (912) 478-071.

Personnel. *Please list any individuals who will be participating in the research. Also please detail the experience, level of involvement in the process and the access to information that each may have.*

The only individuals participating in the research are the primary researcher and her advisors. Hayley Marks, the primary researcher is a second year Masters student at Georgia Southern University. Cooperating faculty advisors include Dr. Daniel Czech,

Ph.D., Dr. Brandonn Harris, Ph.D., and Dr. Trey Burdette, Ph.D., of the Department of Health and Kinesiology at Georgia Southern University.

Purpose. *1. Briefly describe in one or two sentences the purpose of your research. 2. What questions are you trying to answer in this experiment? Please include your hypothesis in this section. The jurisdiction of the IRB requires that we ensure the appropriateness of research. It is unethical to put participants at risk without the possibility of sound scientific result. For this reason, you should be very clear about how participants and others will benefit from knowledge gained in this project.*

The purpose of the present study is to explore the coping strategies of NCAA Division I and NCAA Division III athletes who have sustained a career ending injury. The secondary purpose of this study is to compare these coping strategies of NCAA Division I and NCAA Division III athletes. A career ending injury can be defined as an injury that prevents an athlete from returning to competition.

This research aims to qualitatively examine the ways that athletes cope with enduring a career ending injury. This study is strictly qualitative in order to gain insight and perspective from those individuals who have suffered a career ending injury. Since this is an exploratory qualitative study, the researcher has no hypotheses, as she just wishes to gain a deeper understanding of the phenomena of coping with a career ending injury.

Literature Review. *Provide a brief description of how this study fits into the current literature. Have the research procedures been used before? How were similar risks controlled for and documented in the literature? Have your instruments been validated with this audience? Include citations in the description.*

Nearly 15% of athletes retire due to a career ending injury (NCAA, 2012). Many athletes have issues with leaving the sport world so abruptly. Heil (1993) explains that an athlete is more likely to have difficulties adjusting to an unanticipated retirement. A career ending injury can be defined as an injury that prevents an athlete from returning to competition. Van Raalte and Anderson (2007) support this concern explaining that athletes who have been dedicated to playing sports for most of their lives experience problems in developmental areas including academics, relationships, and vocational exploration. Further research on athletic injuries suggests that an athlete who suffers a career ending injury can face a decrease in life satisfaction (Klieber & Brock, 1992). Taken together, these studies may suggest that an athlete may spend so much time involved in sports that he or she may not have sufficient time to have intimate relationships, may not invest as many resources in their education, and may be lost when it comes to deciding what to do once they complete their college education. These three components are vital to living a healthy and well balanced life. The National Collegiate Athletic Association (NCAA, 2012) reports that about 15% of NCAA collegiate athletes in various sports progress to play professionally. This means that most athletes will not have the opportunity to compete professionally. When athletes realize that they can no longer compete, it can be very hard to adjust to the idea of a sport-less career. When an

athlete is no longer on a sport team, he or she experiences the loss of camaraderie with teammates, the loss of social relationships, as well as the loss of social recognition and their athletic identity (Gardner & Moore, 2006).

For years, athletic identity has been defined as “the degree to which an individual identifies with the athlete role” (Brewer, 1993, p. 237). The status that an athlete holds on his or her team as well as the status and recognition the athlete receives off of the field on campus can be a vital part of being an athlete and representing the school. There has been conflicting research regarding divisional differences and athletic identity in sport. Sturm and colleagues (2011) suggested that the athletic identities of Division I athletes are similar to those of Division III athletes. However, the study conducted by Griffith and Johnson (2002) revealed that NCAA Division III athletes showed higher levels of athletic identity than Division I athletes. Cantor and Prentice (1996) found that athletes competing at the Division III level experience a strain on their identity due to the rigorous demands of their sport; athletes claimed that the demands of the sport they were playing were comparable to if they did not exceed demands from other activities the athletes were involved in.

There are positive correlates associated with having a strong athletic identity. For example, athletes who have a high athletic identity have also been found to have higher levels of self confidence and greater social interactions (Petitpas, 1987). Additionally, athletes with higher levels of athletic identity also have reported experiencing an increase in overall sport performance (Danish, 1983). The increase in sport performance related to a high athletic identity contributes to the notion that many athletes will focus most of

their time on their sport instead of other various extracurricular activities in order to enhance their performance. Brewer (1993) found that athletes with a stronger athletic identity place a greater importance on athletics. These athletes usually allocate most of their time to their sport, spending it mainly with teammates and coaches. The additional positive experiences that athletes with high athletic identity are exposed to include increased confidence and a stronger sense of self-identity.

While there are positive associations evidenced with higher athletic identities, there are also negative correlates associated with higher levels of athletic identity. Many of these negative aspects are experienced when an athlete encounters a transition out of sport. This might include, for example, when an athlete comes to end of their sport career, voluntarily or involuntarily, such as incurring an injury or being cut from a team. If an athlete identifies too closely to their role as an athlete, it can make leaving their sport more difficult. These athletes have a harder time separating themselves from athletics and can become more susceptible to decreases in both emotional and physical health, depression, and feelings of isolation (Brewer, 1993). Research suggests that an athlete that has a higher level of athletic identity will have a harder time adjusting to leaving their sport. Grove et. al (1997) reported that athletes with higher athletic identity also demonstrated a higher degree of psychological adjustment needed to cope with transitioning out of their sport.

After experiencing an injury that causes termination of sports career, an athlete must cope with the transition. Coping has been traditionally defined as “a process of constantly changing cognitive and behavioral efforts to manage specific internal demands

or conflicts appraised as taxing or exceeding one's resources" (Lazarus & Folkman, 1984, p.141). In other words, coping is how an individual deals with a stressful situation.

From the more formal definition, two types of coping have emerged. Two strategies of coping include problem- and emotion-focused coping. Problem-focused coping is centered on changing the problem that is triggering stress in an individual. Emotion-focused coping is based more on controlling the emotions that an individual has when reacting to a situation that causes stress. The approach that a person utilizes when coping is often called a coping style. Some individuals may be more inclined to adopt an approach style of coping, which involves dealing with the stressful situation directly; while others may favor an avoidance coping style, where the individual solves the problem by avoiding the situation. Anshel and colleagues (1997) proposed a two dimensional conceptual framework for coping, where the coping styles and coping strategies interact with each other to form four categories of coping strategies. These four categories include approach/problem-focused coping, approach/emotion-focused coping, avoidance/problem-focused coping, and avoidance/emotion-focused coping (Anshel et al., 1997).

Anshel (2012) and Cox (2002) explain the different categories of coping and provide examples of each. When an individual uses approach/problem-focus coping, he or she attempts to determine the reasons for mistakes that were made and then tries to correct them. Some of the strategies for this style of coping include speaking to a mentor, seeking support from others, and going to a counselor. A person using approach /emotion-focused coping tries to lower stress levels by using progressive relaxation.

Utilizing positive self-talk, planning, and engaging in prayer are just a few strategies that can be used in this approach. The approach styles of coping are very active in dealing with an issue or situation. On the other hand, avoidance styles of coping address a situation by disregarding the issue at hand. A person using the avoidance/problem-focused coping style tries not to worry about the issue and tries again in order to succeed. Strategies for this coping style include walking away, exercising, or participating in another activity. An individual who uses the last style of coping, avoidance/emotion-focused coping, deals with coping by ignoring the situation and not letting the issue bother him or her. Some of the strategies that someone may use within this style are psychological distancing, ignoring, and putting more focus on the future tasks at hand.

Coping processes have been found to be one of the most influential factors during the process an athlete endures when transitioning out of a sport (Gardner & Moore, 2006). Folkman and Lazarus (1985) show that both problem-focused and emotional-focused coping are used by athletes who experience injury, strengthening the notion that coping is a dynamic process that involves using one or more strategies to cope efficiently. Some of these strategies that athletes utilize in order to help them cope with the transition out of sport included acceptance, active coping, behavioral disengagement, denial, humor, mental disengagement, planning, and seeking social support, to name a few (Grove et al., 1997). Among one of the most used coping strategies was seeking social support; more specifically, athletes reported that they felt better and accomplished more when they had support from family and friends.

While research has been conducted to examine coping strategies in athletes who have experienced injury and gone through the rehabilitation process, little research has been found which has examined how an athlete handles the news of a career ending injury and the coping strategies he or she uses in order to come to terms with the transition. Although there have been studies that have examined the coping strategies of elite athletes who played professional sport and were forced to retire due to injury, few qualitative studies have looked at the coping strategies used by athletes below the professional level. Furthermore, little research has been found which has compared and contrasted coping strategies of NCAA Division I and Division III athletes. Therefore, by using qualitative research methodologies, it is expected that participants will freely give information that can be used to help address the issue of career ending injuries and the burdens that athletes feel when having to cope with their transition.

Outcome. *Please state what results you expect to achieve? Who will benefit from this study? How will the participants benefit (if at all). Remember that the participants do not necessarily have to benefit directly. The results of your study may have broadly stated outcomes for a large number of people or society in general.*

The researcher expects to conduct in depth interviews with individuals who have suffered from a career ending injury to gain more information on the coping strategies that were employed while coping with an event as severe as a career ending injury. The researcher has no hypothesis regarding the interviews or the outcomes of these interviews, as this is study is qualitative in nature, and the researcher is attempting to expand her knowledge about coping mechanisms used. These results will help the

researcher better understand the feelings that these athletes experience and will help the researcher find ways to alleviate the stress that these athletes experience if and when they endure a career ending injury. The researcher also hopes to work towards not only helping those athletes that have suffered a career ending injury, but those athletes who suffer any injury and have to discontinue competitive play for any amount of time. The researcher hopes to shed light on the importance of transitions in sport, including those transitions that come about suddenly that many athletes are not prepared for. The researcher hopes to gain knowledge about these athletes and use this information in the study to introduce programs that can be implemented with athletes so that they are better prepared should they have to face a sudden transition in their sport career, such a career ending injury. The study will encompass information from two NCAA divisions, which will contribute to the existing research and enhance the knowledge of career ending injuries. There is little research on how collegiate athletes handle the transition out of their sport due to a career ending injury. Researchers in the field can use this knowledge to develop programs for these athletes in order to make the transition easier and help the athletes have a more positive outlook on exiting their sport.

Describe your subjects. *Give number of participants, and applicable inclusion or exclusion requirements (ages, gender requirements, etc.).*

Ten NCAA collegiate athletes (five from Division I colleges and five from Division III colleges) who have sustained injuries that ended their playing career in their respective sports, will be interviewed for this study. This purposeful sample will be selected based on the snowballing technique, as well as the ability of the participants to

describe their experience. A snowball sample is a sample of participants that is recruited from acquaintances of existing participants, as well as acquaintances of the researcher. These participants will be selected based on the amount of information that could be used from the interviews. Participants will have experienced a career ending injury while competing at a collegiate level, and they will have been out of competition for at least one year. Research shows that athletes reported their process of adjustment to a career ending injury lasting between six months and one year (Stoltenburg et. al, 2011).

Recruitment and Incentives: *Describe how subjects will be recruited. (Attach a copy of recruitment emails, flyers or etc.) If provided, describe what incentives will be used and how they will be distributed.)*

In order to recruit individuals for this study, a snowball sample will be used. The researcher will be given contact information of individuals that meet the requirements for the study from people the researcher knows, the researcher will contact those individuals via email/phone, depending on the contact information given. The researcher will also ask those individuals who partake in the study if they know anyone who would fit the criteria needed to participate in the study in order to find more participants for the study. A recruitment script will be used when contacting potential subjects for the study. The recruitment script can be found attached to this narrative. No incentives will be offered for participation in the study.

Research Procedures and Timeline: *Enumerate specifically what will you be doing in this study, what kind of experimental manipulations you will use, what kinds of questions or recording of behavior you will use. Focus on the interactions you will have with the*

human subjects. (Where applicable, attach a questionnaire, focus group outline, interview question set, etc.) Describe in detail any physical procedures you may be performing.

Upon receiving Institutional Review Board approval, potential participants will be contacted asking for their participation in the study. The researcher and members of the committee for this study will obtain names and contact information of athletes that meet the criteria mentioned above. The athletes will be contacted by the lead researcher and the study will be explained to the athletes. If the athletes agree to participate, meeting times and locations to conduct the interviews will be mutually agreed upon. The interviews will all be conducted individually to ensure the confidentiality of each participant. The participants will be made aware that the interviews they will be giving will be recorded, however their names will not be able to be traced back to their interviews. Participants will also be made aware that the researcher and her team would be the only ones that would be reviewing the data. Participants will have the opportunity to review their transcript and validate their responses. The informed consent will explain that participants could choose to end their interview at any time. Participants would also be aware that the researcher and her team would be the only ones that would be reviewing the data. Participants had the opportunity to review their transcript and validate their responses. The informed consent explained that participants could choose to end their interview at any time. The researcher will collect data in the form of in-depth interviews, similar to most qualitative studies. The questions for this study consist of open ended questions, which allow the participant to respond in his or her own words

without any leading questions, which can guide the interviewee to say something that they think may be expected by the researcher.

Prior to collecting data from participants via qualitative interviews, a pilot study and bracketing interview will be conducted. A bracketing interview will be done in order to make the researcher aware of any biases that they may have. A pilot study will then be conducted in order to help the researcher enhance interview skills and to ensure that the questions being asked are appropriate. The researcher will interview an athlete in order to make sure that the questions are clearly understood, and any necessary changes will be made to the questions and the interview process in efforts to improve the study. The interviews will be recorded and transcribed in the same way that the interviews in the main study will be performed. An interview guide of questions will be used in the interview process in order to have the interviewees explain their injury and how they coped with their unfortunate news. Through these interviews, the researcher will become more comfortable with the interview process. The interviewees will also be able to provide feedback on the questions that they were asked and were able to provide suggestions in order to improve the study.

When data collection begins, participants will complete a demographics questionnaire in order to collect information regarding age, gender, ethnicity, college Division (I or III), sport played, nature of injury, and number of years they have been out of competition. Interviews will then be conducted by the researcher. Interviews will be recorded using a voice recorder application that is installed on the researcher's tablet. The application is titled "Easy Voice Recorder" developed by DIGIPOM, version 1.6. This

voice recorder will be used to record the interviews and will be used to replay and transcribe the interviews. The semi structured interview guide will be used for interviewing participants. The questions will consist of the following:

1. Tell me about your collegiate sport career.
2. Tell me about the injury you experienced that resulted with you having to stop competing.
3. What were your thoughts and feelings when you learned you would not be able to continue competing?
4. How did you cope with not being able to compete?

Probing questions will be asked when necessary in order to obtain more information and clarify the participants' answers. Participants will once again be informed that they are voluntarily consenting to take part in the study and may choose to leave the interview at any time if feeling uncomfortable. All participants will be assigned an arbitrary number to ensure confidentiality of responses for the thematizing of the interviews. As these sessions are recorded, each interview participant was also informed that the recording may be stopped at any time and he or she may choose to leave without any repercussions. All participants' responses will be kept confidential from one another and stored in the form of digital files on the researcher's personal computer. Only the primary researcher and her faculty advisor will have access to these files. Transcriptions of the recorded interviews will be performed by the researcher of this study. In order to maintain confidentiality, each participant will be given a coding number prior to the start of the interview. A protocol will be also set in place in case participants became overwhelmed during the interview and felt the need to seek further counseling assistance upon interview completion. Participants who feel they need further assistance will be

encouraged to contact the Counseling and Career Development at Georgia Southern University. They may be reached at (912)478-5541.

Data Analysis: *Briefly describe how you will analyze and report the collected data.*

Include an explanation of how will the data be maintained after the study is complete and anticipated destruction date or method used to render it anonymous for future use.

All of the interviews will be recorded and then transcribed into an interview script. Transcripts will be prepared by the researcher. The researcher and the participants will be the only individuals that have access to the audiotapes until they are erased. The copies of the transcripts, informed consent, and recordings of the interviews will remain locked in a file drawer. In order to ensure confidentiality, names of participants will be changed to numbers. Data analysis will be done according to the process established by Czech et al. (2004). The steps in this process include approaching the interviews, focusing the data, summarizing the interviews, and releasing the meanings. Once the interviews are collected, the researcher will approach the interviews by transcribing the interviews verbatim and obtaining a grasp of the content. The researcher will then focus the data by pulling out information that is significant. In this step, the researcher will also eliminate any parts of the interview that are irrelevant. Next, the researcher will summarize the interviews and gather all related statements together. After this step, the researcher will then release the meanings, identifying themes within the interviews, and the researcher will match segments of the interviews with the determined themes.

In order to establish credibility in the study, triangulation will be achieved in the form of interviewer transcription, member checks and peer debriefing. Member checks

will be done in three parts. Following the interview, participants will be asked if they would like to add any additional comments or clarify anything that was said. After the interviews are transcribed by the researcher, participants will be given a copy of their interview in order to review and confirm the dialogue. After the transcripts are reviewed and themes are established, the researcher will send a copy of the themes and interview segments to the participants to verify themes and make sure the essence of what they said still remains. Peer debriefing will also be utilized by the researcher. Once the themes are established and verified, the interview scripts will be given to fellow graduate students in sport psychology in order to confirm that the chosen segments from interviews appropriately match the corresponding themes. The graduate students who participate in helping to verify themes will meet once in a closed room to discuss the themes and scripts, and they will be made aware that all information that they have is confidential and not to be repeated outside of that discussion. The graduate students will only have access to the selected segments of interviews, no other information (demographic questionnaire, audio recordings, etc.) will be made available to them. The participants will be from different geographical areas, not necessarily from an area that is familiar with the graduate students, which will help preserve the participants' confidentiality.

After the themes are verified, the researcher will compare the coping strategies of Division I athletes to the strategies used by Division III athletes. Through the comparison of coping strategies, the researcher will hopefully be able to see which athletes had a harder time coping with their injury, and if there is a difference in athletes in different NCAA divisions. The researcher will also gain knowledge about which coping strategies

are common among each division, if any commonalities are presented. The findings from this study will help to contribute to the importance of and significant need of programs that help athletes with transitioning out of sport, due to a career ending injury, The emphasis on transitioning out of sport in general may also be touched upon, as many athletes who are graduating are transitioning out of their sport indefinitely and may not be prepared for this transition. This research will help researchers to plan programs so that these individuals feel more comfortable transitioning out of their sport, for any reason, not just extreme measures such as a career ending injury.

Special Conditions:

Risk. *Is there greater than minimal risk from physical, mental or social discomfort?*

Describe the risks and the steps taken to minimize them. Justify the risk undertaken by outlining any benefits that might result from the study, both on a participant and societal level. Even minor discomfort in answering questions on a survey may pose some risk to subjects. Carefully consider how the subjects will react and address ANY potential risks. Do not simply state that no risk exists. Carefully examine possible subject reactions. If risk is no greater than risk associated with daily life experiences state risk in these terms.

There is minimal risk for participants taking part in this study, however, since the participants are divulging some sensitive information, there is a possibility that they may experience negative feelings such as sadness, anger, or emotional distress when recollecting their experience of enduring a career ending injury; and in the event that a participant needs to seek further counseling services, the researcher will encourage the

participant to seek counseling services if these negative feelings arise. Since the researcher will be interviewing participants from different areas, the participants will be encouraged to seek further counseling services that are geographically convenient to them.

The researcher is mindful that personal and sensitive information is being collected, and participants may feel as though their confidentiality may be compromised. However, measures will be taken to minimize this possibility. All data will remain secured and password protected on the tablet that will be used to record the interviews.

Cover page checklist. *Please provide additional information concerning risk elements checked on the cover page and not yet addressed in the narrative. If none, please state "none of the items listed on the cover page checklist apply." The cover page can be accessed from the IRB forms page. (Note – if a student, make sure your advisor has read your application and signed your cover page. (Your advisor is responsible for the research you undertake in the name of GSU.)*

Reminder: No research can be undertaken until your proposal has been approved by the IRB.

COLLEGE OF HEALTH AND HUMAN SCIENCES

DEPARTMENT OF HEALTH AND KINESIOLOGY

INFORMED CONSENT

Dear Participant,

You are being asked to participate in a study that is being conducted by Hayley Marks, a current graduate student at Georgia Southern University, who is working towards obtaining a Masters degree in Health and Kinesiology with a specialization in Sport and Exercise Psychology. Your participation in this study will contribute to part of the completion of Hayley's Masters Thesis project, as your interview will be compiled with other interviews to serve as the prominent data for this research study.

The purpose of the present study is to use a qualitative approach to examine the coping styles and strategies employed when coping with a career ending injury. A secondary purpose of this study is to compare these styles and strategies to other individuals that are participating in this study. This study will be completed by means of a qualitative analysis, meaning the responses from your interviews will be categorized into themes in order to interpret results from the data.

Participation in this research is not anonymous, but is confidential. The primary researcher will be aware of your participation and corresponding results. Participation in this research will require you to take part in a semi-structured interview, which will last approximately 30-60 minutes. Interviews will be inscribed on a digital recording device and will be kept through the completion of the study in August 2014, upon which all digital files will be destroyed. The digital files as well as the interview transcripts will be kept in a secure location under the supervision of only the primary researcher and her faculty advisor. Basic demographic information will also be collected. Transcriptions of the recorded interviews will be performed by the head researcher of this study. This research idea has been submitted to the Institutional Review Board. The Board has approved this study and has found that this proposal serves a valid educational purpose and poses little risk to you as a participant. Please be aware that your participation in filling out this form and taking part in the interview process for this study is entirely voluntary. You may choose to complete the interview in its entirety or you may choose not to participate without penalty. In addition, you may choose to skip any questions you find objectionable. You should know that some of these questions may be personal and sensitive, as the researcher will be asking about your past and present stressful experiences. You have the right to refuse to answer any questions without penalty and may skip any of these questions in their entirety if you feel that the questions are too personal or too sensitive. Choosing to participate in this study, skipping questions, or withdrawing from the study will not result in any consequences.

There is also a risk that at some point in this questioning process you may be uncomfortable sharing certain information with the primary researcher. Therefore, you should also be aware that all responses from both the demographics and the interview

will be kept confidential—your identity in conjunction with your responses will be seen by no one but the primary researcher. Part of the qualitative process involves the use of a “focus group” to help with the process of categorizing data from the interviews into themes. This focus group will meet and be presented with the interview transcript and corresponding themes for the study. Thus, your identity on your transcript will be labeled with an ambiguous name and number, such as ‘Participant 1,’ so that your identity will not be known to these external members. Data will be stored in a safe location under the supervision of the primary researchers, and will kept through the completion of the study in August 2014. As personal information is being collected, the breach of confidentiality may be a potential risk in this study, however efforts are being taken on the part of the researchers to decrease the chance of this risk. Possible emotional distress may also occur due to the personal nature of the questions. Should you feel overwhelmed as a result of this interview; the researcher will encourage you to seek counseling services that are convenient to you in your geographical area.

In participating in this study, you are helping the primary researcher answer questions about coping styles and strategies of athletes who endure career ending injuries. Ultimately, your participation in this study will help further knowledge about career ending injuries and may lead towards the improvement of psychological skills training and anxiety reducing programs as well as coping protocols for college athletes who may experience career ending injuries.

As a participant, you should be prepared to dedicate a least 30 minutes for participation in this study. Roughly 5-10 minutes will be needed to gather demographic and background information. The interview itself should take approximately 30-45 minutes, lasting as long as 60 minutes. No compensation for participation in this study will be provided.

As a participant, you have the right to ask questions and have those questions answered. If at any time during this study you have questions please contact the primary researcher at hm01672@georgiasouthern.edu. You may also contact the researchers’ faculty advisor, Dr. Daniel Czech, whose information is below. If you have further questions concerning your rights as a participant in this study, please contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-0843.

You will be given a copy of this consent form to keep for your records. This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H14263.

Title of Project: An Examination Coping with Career Ending Injuries: An NCAA Division I and NCAA Division III Comparison

Principal Investigator:

Hayley Marks, Georgia Southern University, hm01672@georgiasouthern.edu

Faculty Advisor: Dr. Daniel Czech, Georgia Southern University, 912-478-5267, drczech@georgiasouthern.edu

Participant Signature

Date

I, the undersigned, verify that the above informed consent procedure has been followed.

Investigator Signature

Date

Demographic Questionnaire

What is your age? _____

What is your gender?

Male

Female

What is your ethnicity?

Caucasian

African American

Asian American

Hispanic/Latino

Multiracial

Other (Please specify): _____

What Division did you play for in college?

Division I

Division III

Please specify which sport you played that caused your injury: _____

Please specify your injury that caused you to leave your sport: _____

How many years have you been out of competitive sport? _____

CITI Collaborative Institutional Training Initiative

Human Subjects-Social & Behavioral Research - Basic/Refresher
Curriculum

Completion Report

Printed on 2/4/2013

Learner: Hayley Marks (username: hcmarks)

Institution: Georgia Southern University

Contact Information 300 Lanier Drive

Suite 221

Statesboro, GA 30458

Department: Health & Kinesiology

Phone: (912) 478-1990

Email: hm01672@georgiasouthern.edu

Human Subjects-Social & Behavioral Research - Basic/Refresher: Choose
this group to satisfy CITI training requirements for Investigators and staff
involved

primarily in Social/Behavioral Research with human subjects.

Stage 1. Basic Course Passed on 09/19/12 (Ref # 8791127)

Required Modules

Date

Completed

Belmont Report and CITI Course Introduction 09/18/12 3/3 (100%)

Students in Research 09/18/12 10/10 (100%)

History and Ethical Principles - SBR 09/18/12 5/5 (100%)

Defining Research with Human Subjects - SBR 09/18/12 4/5 (80%)

The Regulations and The Social and Behavioral

Sciences - SBR

09/19/12 5/5 (100%)

Assessing Risk in Social and Behavioral Sciences -

SBR

09/19/12 5/5 (100%)

Informed Consent - SBR 09/19/12 4/5 (80%)

Privacy and Confidentiality - SBR 09/19/12 5/5 (100%)

Conflicts of Interest in Research Involving Human
Subjects

09/19/12 4/5 (80%)

Elective Modules

Date

Completed

Cultural Competence in Research 09/19/12 5/5 (100%)
Research with Children - SBR 09/19/12 4/4 (100%)
Research in Public Elementary and Secondary Schools
- SBR
09/19/12 1/4 (25%)

Internet Research - SBR 09/19/12 5/5 (100%)

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and

2/4/13 Completion Report

<https://www.citiprogram.org/members/learnersII/crbystage.asp?strKeyID=E91549C3-FD48-42D5-9893-A28417F2AF8C-14424960&gradebook=30242> 2/2

unauthorized use of the CITI course site is unethical, and may be considered

scientific misconduct by your institution.

Paul Braunschweiger Ph.D.

Professor, University of Miami

Director Office of Research Education

CITI Course Coordinator

CITI Collaborative Institutional Training Initiative
CITI Health Information Privacy and Security (HIPS) Curriculum
Completion

Report

Printed on 2/4/2013

Learner: Hayley Marks (username: hcmarks)

Institution: Georgia Southern University

Contact Information 300 Lanier Drive

Suite 221

Statesboro, GA 30458

Department: Health & Kinesiology

Phone: (912) 478-1990

Email: hm01672@georgiasouthern.edu

CITI Health Information Privacy and Security (HIPS) for Clinical

Investigators: This course for Clinical Investigators will satisfy the mandate
for

basic training in the HIPAA. In addition other modules on keeping your
computers,

passwords and electronic media safe and secure are included.

Stage 1. Basic Course Passed on 08/26/12 (Ref # 8547621)

Required Modules

Date

Completed

About the Course 08/26/12 1/1 (100%)

Privacy Rules: Introduction to Federal and State

Requirements*

08/26/12 9/10 (90%)

Privacy Rules and Research* 08/26/12 10/10 (100%)

Security Rules: Basics of Being Secure, Part 1* 08/26/12 no quiz

Security Rules: Basics of Being Secure, Part 2* 08/26/12 4/5 (80%)

Completing the Privacy and Security Course 08/26/12 no quiz

Elective Modules

Date

Completed

Security Rules: Picking and Protecting Passwords** 08/26/12 6/8 (75%)

Security Rules: Protecting your identity* 08/26/12 7/7 (100%)

For this Completion Report to be valid, the learner listed above must be
affiliated with a CITI participating institution. Falsified information and
unauthorized use of the CITI course site is unethical, and may be
considered

scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education

CITI Course Coordinator