ABSTRACT

ATHLETES’ PERSPECTIVES ON PSYCHOLOGICAL REHABILITATION FROM SPORT INJURY IN RELATION TO THEIR RESTORATION NETWORKS

by John Charles Mackersie, Jr.

This paper examines the role of social support and its affect on athletic injury rehabilitation. The study utilized a semi-structured interview structure on six previously injured Division I athletes. Results were analyzed using qualitative methodology looking for emergent themes and sub-themes. It was originally thought a social network of supporting roles was crucial for injured athletes’ recovery. However, with the current results, it is now evident that social networks are but a small fraction of the process. This study concludes with future research directions.
ATHLETES’ PERSPECTIVES ON PSYCHOLOGICAL REHABILITATION FROM SPORT INJURY IN RELATION TO THEIR RESTORATION NETWORKS

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Athletes’ Perspectives on Psychological Rehabilitation from Sport Injury
In Relation to their Restoration Networks
Chapter 1
Introduction and Review of Literature

Psychological factors, compared with the physical aspects, have long been a secondary concern within the realm of rehabilitation from athletic injury. However, it has been shown that “the psychological” plays a major role in athletic injuries. Specifically, psychological factors have been found to predict athletic injuries (Wiese-Bjornstal et al., 1998; Young, 2004), vary the multiple psychological responses due to athletic injury (Wiese-Bjornstal et al., 1998), and also influence the process of recovery and rehabilitation from athletic injury as well as athletes’ return to competition from athletic injury (Podlog & Eklund, 2007; Tracey, 2003). Knowledgeable assessment of the psychology of athletic injury helps to maximize performance restoration following athletic injury of injured athletes. Further, a critical factor involved in athletic injury, recovery, and rehabilitation from athletic injury is the social influence of others who are interacting with the injured athletes. Specifically, social interactions with others may significantly influence the process of athletic injury and a lack of such interactions can prove detrimental (Tracey, 2003).

Previous research has focused on the social interactions between injured athletes and a multitude of other individuals including athletic trainers, significant others, and coaches (e.g., see Podlog & Eklund, 2007; Wiese-Bjornstal et al., 1998; Tracey, 2003). However, research has not examined the ways in which injured athletes experience their social interactions with multiple parties simultaneously. That is, instead of focusing on how individuals affect injured athletes’ recovery (i.e., coaches OR friends OR family), this study focused on how a combination of individuals effect the process of athletic injury and injured athletes’ recovery from athletic injury (i.e., coaches AND friends AND family). This is important because, for example, the actions resulting through social interactions with a coach may conflict with actions from family members, athletic trainers, etc. It is important to recognize the combination of multiple roles in affecting injured athletes’ recovery from athletic injury to restore performance. Therefore, the term restoration networks was used in this study to describe the multiple social interactions which occur between injured athletes and others in hindering or assisting the process of athletic
injury and, specifically, the recovery and rehabilitation from athletic injury. Such networks are comprised of a number of individuals (i.e., coaches, family, friends) to support the injured athlete attempting to return to their former, normal, or original state. As an illustrative point, consider restoration networks as spider webs, with each strand of the web representing an individual involved socially with athletes’ attempting to recover from athletic injury. All strands and the interaction between the strands, of the “web” or “restoration network” are significant to fully understand social influences on recovery from athletic injury. Therefore, the purpose of this study was to investigate athletes’ experiences of psychological rehabilitation from sport-related injury in relation to their restoration networks.

In this review of the literature, the existing research related to my study purpose is presented. Specifically, the extant research on the psychological aspects of athletic injury and athletic injury rehabilitation is reviewed. First, predictors of athletic injuries are examined. That is, research has shown that certain variables antecedence athletic injury (Wiese-Bjornstal et al., 1998; Young, 2004). Second, responses to athletic injuries are discussed. Research has supported multiple reactions to athletic injury (i.e., coping), and this will be explained. Third, conceptual models psychological aspects of injury are explained. These different conceptual models attempt to explain the process of athletic injury (i.e., appraisal models) ((Wiese-Bjornstal et al., 1998). Lastly, and most significant in terms of this particular study, social interactions with others influencing athletes’ psychological recovery and rehabilitation from athletic injury, as well as return to competition, are discussed. In other words, other individuals can significantly impact the athletic injury process and thereby affect this process of recovery and rehabilitation from athletic injury (Magyar & Duda, 2000; Podlog & Eklund, 2007). The combination of individuals interacting with injured athletes comprise their restoration networks, which are social networks aimed towards performance restoration, both physically and mentally, resulting in enhanced sport performance following athletic injury. The review of the literature then concludes with a discussion of the limitations of the existing research.

A primary understanding of any topic depends on defining the subject at hand. Definitions of athletic injury prove problematic as no true working definition or set of definitions exist. The definitions available are operational definitions differing per study. One operational definition of athletic injury comes from a study by Gould, Udry, Bridges, and Beck (1997a),
which operationally defined athletic injury as season-ending, and defined such as “one which prevented a skier from completing a ski racing season and kept him or her off skis for at least 3 months (p. 363).” Though this definition is skiing-specific, no true working definitions are available concerning the broad range of athletic injury. Further development of working definitions on athletic injury warrants future attention (Wiese-Bjornstal et al., 1998).

**Psychosocial Predictors of Athletic Injury**

A relatively unexplored area of interest focuses on the psychosocial predictors of athletic injury. Factors that have been shown to predict athletic injury are various life and mental skills, personality characteristics, and sociological factors. Wiese-Bjornstal, Smith, Shaffer, and Morrey (1998) specifically identify personality, life stresses, and coping resources as factors that predict athletic injury. However, a major, yet relatively new component, of injury prediction has a sociological focus.

A primary and influential social factor involved in predicting athletic injury is referred to as the “culture of risk” which describes the risks existing within sport as inevitable (Wiese-Bjornstal et al., 1998; Young, 2004). The “culture of risk” concept originated within the gay community regarding practices of unsafe sex before being examined within sport, and was preceded by the term of “sport ethic” (Wiese-Bjornstal et al.; Young, 2004). Within sport, this term can be described as accepting pain and injury, among other things, as “part of the game” (Wiese-Bjornstal et al., 1998). Gender differences perpetuate the ideology behind the “culture of risk” (Young, 2004). The merging of pain and athletics is continued through a focus on masculine identity, character development, and media sources. In this sense, rejecting the combination of pain and athletics would be to reject athletics entirely, as athletics and pain are increasingly meshing themselves (Wiese-Bjornstal et al., 1998). This is seen through numerous outlets including the mass media (i.e., slow-motion of plays containing injury) and sport advertising (“no pain, no gain”) (Young, 2004).

The social aspects of injury are escalated as injury and pain can be further viewed as a biopsychosocial phenomenon. Observably, this rests on factors as the perception and distinguishing of pain by the individual athlete, and the degree of suffering is ultimately a reflection of the meaning of pain to the individual. This was originally assessed in World War Two soldiers and was later adapted to pain interpretation in sport (Pargman, 1999). More work
is needed in the sociological realm dealing with different ideologies of risk and risk-taking by trying risk assessment/management and application of appropriate theories (Young, 2004).

Along with the sociological aspects in prediction of athletic injury, some explanation may lie within personality traits and variables (Galli & Vealey, 2006). Research has shown that resiliency is linked with important variables involved in athletic injury and athletic injury rehabilitation such as social support and coping (Galli & Vealey, 2006). These, combined with personal factors, such as the aforementioned sociological influences, produce resilient qualities in athletes. Personal characteristics (i.e., confidence), coping, and social support seem to be most indicative of resilient qualities in athletes, and both social support and coping seemed critical in the process of dealing with adversity, such as the event of an athletic injury (Galli & Vealey, 2006). Thus, a plausible relationship is seen between personal characteristics, such as resiliency, and athletic injury.

Mental toughness is a personality variable associated with helping to predict athletic injuries as well (Connaughton, Wadey, Hanton, & Jones, 2008). Mental toughness is pivotal in resiliency in sport, such as recovering from athletic injury, and takes place in stages (i.e., early, middle, later, maintenance). One key to developing mental toughness is support from others, or social support (i.e., coaches, parents), and social support is intricately involved with the athletic injury process. Social support helps athletes to reframe performance setbacks (i.e., athletic injury) and attribute such setbacks to factors other than ability, which is crucial when attempting to be resilient and recovering from such setbacks. Therefore, the impact of restoration networks associated with athletes suffering from athletic injury plays a prominent role. Several strategies noted in building mental toughness, linked with athletic injury rehabilitation, are self-talk and reflection (Connaughton, Wadey, Hanton, & Jones, 2008). Both allow the injured athletes to recover from setbacks by reframing thoughts and rationalizing their thinking (i.e., athletic injury) more efficiently.

Personality variables may affect additional factors within athletic injury and athletic injury rehabilitation (i.e., coping). Confidence may also play a role in affecting the utilization of coping. Hanton, Evans, and Neil (2003) pose a new term, confident coping, which argues individuals with increased self-confidence have an increased ability to cope. Therefore, it is reasonable to assume higher amounts of confidence are directly linked with improved coping,
and thus, improved rehabilitation and recovery from athletic injury. Conversely, it is suggested that the type of appraisals and coping strategies used could influence levels of confidence. Therefore, the use of restoration networks could have a vast impact on both confidence and coping levels, both of which play integral roles in the realm of athletic injury. This is an interesting finding, as confidence seems central to most concepts associated with mental training in sport, yet little focus has been paid to the link between confidence, coping, and the athletic injury rehabilitation and recovery process.

Responses to Athletic Injury

The majority of research on athletic injury focuses on athletes’ responses to injury. A critical factor affecting this recovery process is social support which comprises athletes’ restoration networks. Coping is defined as “regulatory efforts used to maintain a desirable level of personal functioning in the face of demands on one’s resources” (Udry, 1997, p. 74). Gould et al. (1997b) provide an additional definition of coping as “a process of constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands or conflicts appraised as taxing or exceeding one’s resources (p. 380).” Hanton and Mellalieu (2006) describe coping as something that “can be seen as the person’s ever-changing efforts to manage circumstances that are appraised as stressful” (p. 295). As seen, coping can be described in multiple ways, however all definitions target the same meaning – adaptation towards recovery following an adverse event. Results of several studies showed that coping is a dynamic process, though proving to be an important factor, and could be facilitated through the use of restoration networks (Udry et al., 1997; Gould et al., 1997b). Social support and the use of restoration networks enhances coping in injured athletes and proves important when dealing with adverse situations, as in the case of athletic injury, and separate types of coping exist.

One type of coping, emotion-focused coping, emphasizes the regulation of distressing emotions linked with athletic injury. For example, emotion-focused coping could be used to increase self-confidence and correct performance issues which may result from athletic injury (Hanin & Hanin, 2009; Murphy, 2005). Problem-focused coping targets a change in the source of the stress itself (Udry et al., 1997). Further, problem-focused coping strategies refer to efforts directed towards managing or altering the cause of the stress. An example of this would be the gathering knowledge towards the athletic injury, learning about the treatment for the athletic
injury, and different treatment options, resources, etc. for the athletic injury as well (Murphy, 2005).

Udry (1997) noted additional forms of coping including instrumental coping, negative-emotion coping, distraction coping and palliative coping. The first, instrumental coping, attempts to alleviate the source of stress or discomfort through activities such as finding out more about a health condition, listening to the advice of health care providers, or both (similar to problem-focused coping). Second, negative-emotion coping involves a fixation on the emotional consequences such as feeling anxious about activities that cannot be accomplished or worrying that the health problem may worsen. Next, distraction coping refers to individual’s attempts to cope with a stressor by thinking about other things or engaging in unrelated activities (similar to avoidance coping). Finally, palliative coping involves a variety of self-help activities and responses employed to provide a soothing effect.

Hanin and Hanin (2009) explain an additional coping strategy, action-focused coping. Action-focused coping aims more towards improving performance, but different situations call for different coping strategies. For example, surprise, frustration, and decreased self-confidence could result from adverse events, as in athletic injury, and action-focused coping is a coping strategy utilized to help counter deficiencies resulting from athletic injury. Though some research cites certain coping strategies as being more effective than others, further investigation is needed to see exactly what coping strategies prove more beneficial, assuming this difference exists and this is possible.

Differentiation between coping strategies versus coping resources, as well as defining coping strategies and facilitating factors, is needed (Gould et al., 1997b). Coping strategies are defined as strategies which are utilized and are under control of the athletes themselves. On the other hand, facilitating factors include factors outside the control of the athlete that enhanced recovery. That is, coping resources are physical, social, psychological, and material conditions that strengthen one’s “resistance to stressors”, whereas coping strategies are specific actions taken to deal with the “actual stressor” (Gould et al., 1997b). Despite the multiple strategies and types of coping, no universal patterns of coping exist. It has been supported, however, that coping mechanisms increase in complexity as the stressors become more complex themselves (Gould et al., 1997b).
Though multiple avenues of coping strategies, coping resources, and facilitating factors exist, none of this is possible if the injured athlete does not acknowledge the injury as a reality. If the athletic injury is not accepted it cannot be dealt with properly (i.e., via coping strategies) and can lead to improper recovery (Tracey, 2003). Gender differences may explain some of the discrepancy seen with the separate types of coping strategies applied (Gould et al. 1997b). In a study by Gould et al. (1997b), ten males and eleven females were examined to assess possible gender differences in coping strategies and facilitating factors. Qualitative methodology focused on the different coping techniques utilized between genders. Common themes noted that female athletes tended to note things as personal determination (i.e., belief in self), whereas male athletes were higher in factors as worked towards accomplishing goals (i.e., resuming competition) (Gould et al., 1997b). Furthermore, successful recoveries tended to utilize coping strategies which were inwardly focused (Gould et al., 1997b). Athletes who recovered unsuccessfully pointed to things as lack of models and social resources. Thus, social aspects are once again viewed as important and could provide a strong link to strengthen the recovery process of athletic injury via the use of restoration networks.

Further, social support is beneficial for the rehabilitation and recovery process of athletic injury. The act of appraising the injury is important to the athlete (Udry, 1997; Wiese-Bjornstal et al., 1998). Negative appraisals toward the injury bring feelings of helplessness or as a burden to others (Tracey, 2003). This in turn affects things as self-perception, self-esteem and self-worth, and self-confidence and self-efficacy (Magyar & Duda, 2000; Wiese-Bjornstal et al., 1998). A study by Magyar and Duda (2000) provided evidence for social support being directly linked with confidence, and examined the restoration of confidence in athletes returning from injury by analyzing goal orientations and social support used by injured athletes. Results of the study showed perceptions of strong social support by others (i.e., parents, teammates) yielded positive impacts on confidence levels. Ultimately, confidence needs to be assessed pre-injury, however this is difficult because there is no guarantee as to when or whom an injury will occur. Therefore, it is important to work towards improving confidence in all athletes pre-injury, and in the event of an injury, provide support through restoration networks to renew confidence to help injured athletes cope and aid injured athletes’ recovery.
Coping often deals with the negative aspects of athletic injury since athletic injury is often seen through a scope of negative connotation. However, it is possible for coping strategies to serve towards a focus on the positive emotions resulting from athletic injury (Tracey, 2003; Wiese-Bjornstal et al., 1998). Some athletes view athletic injury as “good timing” (Tracey, 2003). Some athletes experiencing athletic injury utilize coping strategies dealing with the injury to focus on other areas of their lives. One common outlet mentioned in the literature focuses towards academics, as the athletes had increased time, energy, and other resources previously unavailable due to athletic involvement (Tracey, 2003; Wiese-Bjornstal et al., 1998).

Coping strategies additionally help to counter emotional responses due to athletic injury, and one major emotional response of athletic injury is stress. Stress is described as a “transaction between individuals and their environment” (Udry et al., 1997, p. 369). Stress can present itself in multiple ways (i.e., occurrence of major life events, chronic stress, daily hassles), and it is likely athletes suffering from athletic injury can experience these (Gould et al., 1997a). This is exemplified through a variety of stressors including shattered hopes and dreams, fear of re-injury, isolation, others’ expectations, physical inactivity, poor performance, medical diagnosis uncertainty, and missed out-of-sport opportunities, all of which can be improved upon resulting from interactions with others which exist in athletes’ restoration networks (Gould et al., 1997a). Despite these numerous outcomes due to stress, the biggest stress concerns cited were psychological, not physical (Gould et al., 1997a)!

Coping strategies and mechanisms result from a range of emotions additionally correlated with stress (i.e., tension, depression, anger, and confusion) (Hanton & Mellalieu, 2006). Specifically, coping alleviates many problems resulting from athletic injury (i.e., burnout, chronic stress) (Hanton & Mellalieu, 2006). Concerns of coping include whether it is an automatic or conscious process, whether it is effective towards dealing with stress, and if a difference exists between coping style and coping strategy (Hanton & Mellalieu, 2006). Although these questions have yet to be answered, they do raise important issues regarding coping with athletic injury, spurring further research. In addition to coping strategies, social support proved significant as well. Examples of this include athletes receiving advice or insight into the adverse situation (i.e., injury) or through athletes realizing the importance of social
support, and in doing so increasing the call for the use of restoration networks when dealing with athletic injury.

Additional evidence from previous studies accounts for the importance of social support within coping strategies, as stress in relation to coping strategies used when dealing with adverse events such as athletic injury was focused on (Thelwell, Weston, & Greenless, 2007; Udry, 1997). Though coping strategies can be both cognitive and behavioral, cognitive coping strategies seem to be the most prevalent strategies used. One of the most significant areas in which stress can manifest is through social interactions between injured athletes and others, such as incorporating others (i.e., sport psychologists) as a coping strategy, thus increasing the importance of restoration networks in dealing with injured athletes (Udry, 1997). Therefore, research is needed to examine restoration networks in athletic injury since the positive emotions resulting from social interactions outweigh the negative aspect which may result from social interactions (Udry, 1997).

Furthermore, the majority of stress relating to social concerns has proven to be significant (Gould et al., 1997a). Due to the acknowledgement of the role of social interactions involved in dealing with stress and other emotions experienced by injured athletes, the proper use of restoration networks could drastically enhance recovery from athletic injury. Further explanation of social interactions with injured athletes is exemplified through a study by Udry et al. (1997) which focused on the many social ties involved with the stress of athletic injury. Elite athletes were assessed through qualitative methodology by means of retrospective and semi-structured interviews (Udry et al., 1997). Injured athletes rated 100% of relationships (i.e., parents, teachers, friends) as positive (Udry et al., 1997). Emotional support was seen as a crucial factors involved in social support; however, factors which influence social relations (i.e., interactions with others, different support techniques) need to be examined for future research to better assess the impact of responses resulting from athletic injury, and that is what this study aims to do. The impact of social interactions and social support on athletes dealing with athletic injury can greatly impact how injured athletes recover. By trying to assess the numerous social interactions involved, restoration networks are a pivotal factor involved within athletic injury and recovering from athletic injury.
In addition to stress, fear is another emotional response related to athletic injury (Gould et al., 1997a; Tracey, 2003). In a study by Gould et al. (1997a), 57.1% of skiers stated that fear of re-injury is one of the largest factors involved with injury, and stemmed from previous crashes or accidents that caused injury in the athlete (Gould et al., 1997a). Fear of past occurrences was invoked by such things as being active where injury had once occurred (Gould et al., 1997a). However, Tracey (2003) showed that fear is not necessarily related to re-injury; rather reasons for fear are concerned with additional worries such as missing practice, losing fitness, and duration of time out of competition. Fear is a clear psychological factor that plays a crucial role in the return to sport and competition. Focus towards fear should be given in order to improve the rehabilitation process and restoration of performance of injured athletes, and this could be improved upon through the use of restoration networks to provide support to those suffering from fear related to athletic injury in order to enhance recovery.

Though responses to athletic injury deals mainly with coping mechanisms, which are related to emotional responses (i.e., stress, fear) resulting from adverse conditions such as athletic injury, shed a great deal of light on the athletic injury process, it does not provide a complete picture. Conceptual models (i.e., integrated model) provide a guiding framework to how athletic injury, namely recovering and rehabilitation from athletic injury, is explained. It is crucial to know how athletic injury is manifested through injured athletes to shift through the process dealing with athletic injury, and examination of conceptual models dealing with athletic injury enables this.

**Conceptual Models Related to Psychological Aspects of Athletic Injury**

Multiple theories, approaches, and models provide conceptual frameworks to guide the study of athletic injury. The models dealing with athletic injury are continually expanded upon creating interactive, complex models dealing with athletic injury. In this section, simpler models (i.e., appraisal models) are presented first, followed by more complex models (i.e., appraisals plus responses). This section concludes with one of the most recent and complex conceptual models, the integrated model. These conceptual models enable increased comprehension regarding athletic injury aiming at restoring athletes’ performance levels.

Most, if not all, conceptual models regarding athletic injury are based on subjective appraisals, or interpretations, the athlete gives to the injury itself. Appraisal models offer a basic
model to explain responses to athletic injury. In particular, the cognitive-appraisal model attempts to explain responses to athletic injury by stating that athletic injuries rest on the appraisals given to them by injured athletes (Wiese-Bjornstal et al., 1998). The cognitive-appraisal model has also been associated with the cognitive-affective theory as well, which explains that emotional responses are determined by the meanings and appraisals attributed to the event, which in this case is the injury suffered by the athlete (Murphy, 2005). These appraisals given to athletic injury by the athlete are integral towards determining how the injury is treated, rehabilitated, so on and so forth.

Multiple types of appraisals can be given to events as athletic injury (Hanton & Mellalieu, 2006). The first are primary appraisals, which are assessments of what is at stake. Next, secondary appraisals explain the different coping options available when dealing with athletic injury. Moreover, appraisals elicit emotional responses which include four factors (Hanton & Mellalieu, 2006). These four factors contain the quality and intensity of the response, the importance of a given situation, the insight into individual beliefs about world and self, and lastly the appraisal of a situation with respect to its significance for individual well-being (Hanton & Mellalieu, 2006). Ultimately, the appraisal process hinges on the individual’s perceived consequences and outcome (i.e., is it worth it?) (Hanton & Mellalieu, 2006).

A particular emotion resulting from athletic injury is stress. The conceptual model pertaining to stress as a result of athletic injury that will currently be discussed is the stress process model (Gould et al., 1997a; Wiese-Bjornstal et al., 1998). This particular model deals with injury in relation to the different stressors that are connected with athletic injury (i.e., stress). Simply, the stressors due to athletic injury produce cognitive appraisals prompting emotional and behavioral responses to athletic injury (Wiese-Bjornstal et al., 1998). Hanton and Mellalieu (2006) provide additional information towards explaining the stress process model specifically stating social support as serving a pivotal role in dealing with the many stresses resulting from athletic injury and was also viewed as a coping resource hypothesized to directly affect athletic injury outcome (Hanton & Mellalieu, 2006).

To expand on the ways in which social support plays a role in the stress process model in affecting emotional responses due to athletic injury, Rees and Hardy (2000) provide explanation of the different types of social support that exist. These include emotional, esteem,
informational, and tangible forms of social support, all of which are used to some capacity. Emotional support is defined as “the ability to turn to others for comfort and security during times of stress, leading the person to feel that he or she is cared for by others” (p. 335), esteem support is defined as “the bolstering of a person’s sense of competence or self-esteem by other people” (p. 338), information support is defined as “providing the individual with advice or guidance concerning possible solutions to the problem” (p. 339), and tangible support is defined as “concrete instrumental assistance, in which a person in a stressful situation is given the necessary resources (i.e., financial assistance, physical help with tasks) to cope with the stressful event” (p. 340). The important role which social support plays in the process of athletic injury and the recovery of athletic injury is evident through this study. Furthermore, the fact it is multi-faceted shows the vast array of resources available for social support, thus increasing the importance of restoration networks in dealing with the process of athletic injury.

The dynamic nature of responses of athletic injury elicits the need for an equally dynamic conceptual model, and the integrated model fills this void by combining existing conceptual models including the aforementioned appraisal and stress-based models (see Figure 1). The integrated model contains multiple steps analyzing factors of injured athletes and social support of others (Udry, 1997). Social support is seen as playing a critical role in the integrated model, mediating many variables of how the athletes respond to adverse conditions, such as athletic injury, thus necessitating the implementation of restoration networks in the process of athletic injury. The five steps of this model began with variables of the athletic injury itself (i.e., injury history, severity). The second step is the appraisal of the athletic injury of which the actual perceptions of the athletic injury are crucial (i.e., injury severity). The next step includes the emotional responses to the athletic injury, which leads to the fourth step of coping responses (i.e., changing the stressor, response to stressor). The fifth and final step is the behavioral response-adherence towards the athletic injury. In other words, will the injured athlete be motivated to fully recover from the athletic injury, or will the injured athlete experience setbacks during the rehabilitation process? If the athlete suffering from athletic injury experiences a setback during the final step (i.e., re-injury upon return) the athlete then re-appraises the injury, thus beginning the entire process of dealing with the athletic injury over again (Udry, 1997).
The integrated model is further explained through the way pre-injury and post-injury factors influence the psychological factors involved in athletic injury (Hanton and Mellalieu, 2006; Podlog & Eklund, 2007; Tracey, 2003; Wiese-Bjornstal et al., 1998). Podlog and Eklund (2007) specifically describe cognition as central to the integrated model in dealing with athletic injury. The appraisals given to the injury likely determines the emotional responses given to the athletic injury (e.g., anger, fear), which subsequently determines other crucial behaviors (e.g., adherence of rehabilitation). This poses a dynamic, individualistic approach to the psychological aspects regarding athletic injury as explained through a conceptual model (Podlog & Eklund, 2007). Not only do responses differ upon the injured athletes themselves, the individuals surrounding the athletic aiding them in the process of dealing with athletic injury must be cognizant of this process as well given that social support plays such an integral role. Therefore, restoration networks should serve a critical role towards the process of athletic injury and should include knowledgeable individuals to aid the process of athletes facing athletic injury.

Tracey (2003) focused further on the emotional response component within the integrated model and how injured athletes deal with such emotions. Some athletes recalled experiencing a “roller coaster” of emotions and factors as maintaining a positive perspective, hopeful thoughts, and being able to look ahead as beneficial (Tracey, 2003). Collegiate athletes were used to assess these factors by way of qualitative methodology and semi-structured interviews, focusing on two questions regarding the expressed effect and emotional response and the interplay of cognitions on emotional responses towards athletic injury. Results showed that appraisals significantly affected the emotional responses of injured athletes. This study provides insight and support towards the impact subjective appraisals have towards athletic injury and athletic injury recovery and rehabilitation process within the integrated model. In particular, the recovery and rehabilitation process of athletic injury is crucial to preparing injured athletes to return to competition, and involves a vast social influence. Several conceptual models examine specifically the recovery and rehabilitation process of athletic injury (Murphy, 2005).

The transtheoretical model of change states that individuals who attempt to change a behavior progress through a series of stages, which include pre-contemplation, contemplation, preparation, action, maintenance, and relapse (Murphy, 2005). The health belief model shows that adherence to rehabilitation from athletic injury is dependent upon the athletes’ perception of
the severity of the injury and the cost/benefit of the rehabilitation program (Murphy, 2005). Moreover, protection motivation theory extends on the health belief model and has received increased amounts of attention recently. This theory hypothesizes that adherence to rehabilitation from athletic injury is determined by how severe the threat is to an individual’s health, the individual’s perception of how vulnerable he/she is to this threat, the perceived effectiveness of the rehabilitation, as well as self-efficacy (Murphy, 2005).

Though injured athletes’ appraisals are influential towards recovery, and conceptual models provide a helpful way to explain the process of athletic injury rehabilitation, others’ influence (i.e., coaches) makes a significant impact on the athletic injury and athletic injury recovery and rehabilitation process, thereby providing the most support for the use of restoration networks in dealing with athletic injury.

*Key “Others” Influencing Athletes’ Psychological Rehabilitation and Return to Competition from Athletic Injury*

The recovery and rehabilitation process involved within athletic injury ultimately aims to return injured athletes to sport and competition. This aspect is crucial towards performance restoration and athlete return in sport and competition, an integral piece of which rests within a social focus, thus providing a basis for restoration networks in the process of athletic injury. By assessing different terms relating to social factors involved with athletic injury, rehabilitation for athletic injury is enhanced due to restoration networks.

Social support is a strong and influential factor in the process of athletic injury, and a lack of social support has been shown to be detrimental (Barefield & McCallister, 1997; McLaren & Challis 2000; Tracey, 2003). In a sense, social support can prove to be a mediating variable, where the existence of social support is beneficial resulting in more positive outcomes as opposed to negative outcomes associated with a lack of social support. In addition, previous research has shown that increased social support can result in mental health benefits, and mental skills training targeting such factors can improve this (McLaren & Challis, 2000). A positive outlet to counter the negative effects produced from athletic injury is discussing the injury with others. The evidence provided through these specific studies shows the need for social interactions, specifically restoration networks, in the process of athletic injury (Lafferty, Kenyon, & Wright, 2008).
It is important to differentiate social resources from social support. Social resources refer to the characteristics of social relationships including number, type, structure, and quality whereas social support refers to the functional content of relationships (i.e., emotional concern) (Udry, 1997). Social support is defined as an “exchange of resources between at two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the patient” (Udry, 1997, p. 73). Udry et al. (1997) provide an additional definition of social support as “the functional content of relationships such as the emotional concern or instrumental support” (p. 369). Social support is seen as dynamic, changing, and individualistic due to the multitude of contexts it occurs (Udry, 1997). The debate to whether social support is a situational or a coping resource is a common dilemma for researchers regarding athletic injury (Udry, 1997). A disaggregated or functional approach is currently viewed as an accurate method of describing the process of social support within athletic injury.

A study by Tracey (2003), focused on family, friends, teammates, as well as others and their effects in social support towards athletic injury. Others willing listen to the athlete discuss his or her problems proved beneficial (Lafferty, Kenyon, & Wright, 2008). Through the athlete discussing problems associated with the athletic injury itself, the healing process improved, thus improving recovery and maximizing the recovery process of athletic injury. Specifically, qualitative methodology presented that three week post-injury reports showed improved emotions. This was especially true for those returning or near return to competition and sport as compared to recently injured athletes (Tracey, 2003). Although multiple factors can be used throughout different phases to improve the rehabilitation of athletic injury, discussing the injury as a form of social support proved beneficial through the entire injury process (Tracey, 2003). Therefore, a need exists to enhance recovery of athletic injury through the presence of others and the use of restoration networks in the process of athletic injury.

Corbillon, Crossman, and Jamieson (2008) specifically state that recovering effectively from adverse events, such as athletic injury, is highly related to with social support. Social support has been shown to be interpreted differently depending on the source of the social support (Corbillon, Crossman, & Jamieson, 2008; Lafferty, Kenyon, & Wright, 2008). For example, coaches provide a different type of social support as compared with teammates. The availability of social support has proved significant in that the more injured athletes perceive
support as being available, the more satisfied they were (Corbillon, Crossman, & Jamieson, 2008). Other variables impacting the role of social support include playing time (i.e., starter vs. non-starter), past experience with injuries, and overall experience in the athlete’s respective sport (Corbillon, Crossman, & Jamieson, 2008). For example, recognizing that preferential treatment may exist towards starters as compared to non-starters, ensuring social support is even to all athletes will increase the probability that athletes will receive needed social support and increase the ability to better recover from athletic injury. Since different roles supply different types of social support, the existence of restoration networks is crucial to provide a well-rounded support system made available to athletes suffering from athletic injury.

Sport involves intricate social networks, and separation from these social networks often results due to athletic injury. Therefore, social support is needed to counter the possible deficit of social networks created by the injury (Lafferty, Kenyon, & Wright, 2008; Murphy, 2005). One area of separation from such social networks is social comparison (Tracey, 2003; Gould et al., 1997a). When injured athletes’ compare different factors as fitness level, lack of training, and other factors to their teammates, deficiencies occur resulting in negative thoughts (Tracey, 2003). Other negative thoughts and emotions can result from a lack of attention and feelings of isolation, interpreted as a sense of separation from others (i.e., teammates, coaches) (Gould et al., 1997a). According to Murphy (2005), social support can be roughly divided into four categories. These include emotional support (i.e., turning to others for comfort and security, provided a sense of being cared for by others), esteem support (i.e., efforts to build injured individual’s confidence, self-esteem), informational support (i.e., data, advice, guidance helping someone to deal with the injury), and tangible support (i.e., concrete assistance directly helping with the injury) (Murphy, 2005; Podlog & Eklund, 2007). Though all social support is ultimately dependent upon the differences and perception of the individual suffering from the athletic injury, it is nonetheless an integral factor involved when dealing with athletic injury and restoration networks provide an avenue in providing the necessary social support to injured athletes (Murphy, 2005).

Despite a lack of social attention and interaction causing negative social comparisons, increases in social support could generate similar, negative outcomes (Gould et al., 1997a). Specifically, help from others mainly in the form instrumental or tangible support (i.e., carrying
the injured athlete’s books) is initially seen as beneficial, though this can prove to be negative factor, as the athletes quickly felt incapable and inferior by being unable to complete everyday tasks. In a study by Gould et al (1997a), 38% of the athletes viewed negative interactions with significant others as stressful, though the majority of interactions are not solely negative, and are usually a combination of positive, negative, and neutral emotions (Udry, 1997). Though social support can prove negative, the majority of interactions remain positive so restoration networks should be included in dealing with athletic injury for proper recovery from athletic injury.

Enhancing communication appears to enhance social support for injured athletes. This can prove to be especially important with medical personnel, though existing in other areas as well (i.e., coaches, significant others) (Barefield & McCallister, 1997; Wiese-Bjornstal et al., 1998). Therefore, increasing communication between involved personnel and athletes is an aspect of social support that is much needed in regards to recovery from athletic injury (Wiese-Bjornstal et al., 1998). In addition to overall communication, delivery of information regarding the injury has been shown to impact athletes, so it is suggested that attention should be paid to the manner in which information is directed and given to the athletes suffering from athletic injury, which can include the visual aspects of the injury (i.e., scars, bruising) (Tracey, 2003). Initially, visual aspects of the injury can be seen as negative. However, as the injury improves (i.e., decreased bruising, healing of scars), this aspect can soon turn positive regarding the athletic injury (Tracey, 2003). For example, an improvement was seen when trainers progressed from comments on the injury as “oh no” to “that is looking better” (Tracey, 2003). This was beneficial to recovery and rehabilitation from athletic injury in multiple ways, often leading to a speedier recovery due to increased confidence by the athlete toward the injury (Tracey, 2003). This alone could enhance the recovery process from athletic injury. Furthermore, this would not be possible if not for the social presence of others, all of which can be found in restoration networks aimed towards aiding injured athletes in regards to their athletic injuries.

Podlog and Eklund (2007) conducted a study to understand coaches’ perspectives on athlete’s return to competition and sport following athletic injury. Participants included both males and females representing numerous team sports (i.e., rugby, field hockey) and individual sports (i.e., squash, swimming) (Podlog & Eklund, 2007). Qualitative methodology and semi-structured interviews assessed the coaches’ role in athlete’s return to competition and sport...
Medical clearance was a decisive factor towards how a coach felt about an athlete returning to competition (i.e., obtaining medical clearance). Other issues concerned individual specific variables for the athlete (i.e., athletes’ fear of re-injury, sense of isolation, and decrease in performance levels) that coaches must consider when dealing with athlete return to sport. By staying involved with the athletes themselves assessing problematic areas, coaches are able to maximize return to competition and maximize performance restoration for athletes, fulfilling an intricate role in athletes’ restoration networks (Podlog & Eklund, 2007).

Additional sociological factors involving the return of injured athletes to sport and competition following athletic injury is the athletes’ attendance of practice and team functions (Tracey, 2003). Some injured athletes considered attendance of practice positive as they were able to interact with others (i.e., teammates, coaches), regardless of whether they could fully participate with the team or not. On the other hand, the majority of athletes found this emotionally difficult to deal with. Practice attendance has been directly shown to reinforce beliefs that the athlete is letting down the team and led to emotions as frustration, anxiety, anger, and negative social comparisons (Podlog & Eklund, 2007; Tracey, 2003). Mandatory attendance of practices and other team functions for injured athletes may produce negative consequences. Therefore, practice attendance is an important factor that should be considered by athletic staff on injured athletes’ return from athletic injury to practice and competition.

Statement of Purpose and Research Question(s)

Psychological factors, compared with the physical aspects, have long been a secondary concern within the realm of rehabilitation from athletic injury. However, it has been shown that “the psychological” plays a major role in athletic injuries. Specifically, psychological factors have been found to be important predictors of athletic injury (Wiese-Bjornstal et al., 1998; Young, 2004), psychological responses to athletic injury have been found to vary (Wiese-Bjornstal et al., 1998), and psychological factors have been shown to influence the process of rehabilitation from athletic injury as well as athletes’ return to competition from athletic injury (Podlog & Eklund, 2007; Tracey, 2003). Knowledgeable assessment of the psychology of athletic injury would help maximize performance restoration following athletic injury for injured athletes. Furthermore, research indicates that social interactions with others play a critical role in psychological rehabilitation and that a lack of such interactions can prove detrimental (Tracey,
2003). Previous research has focused on the interaction between injured athletes and athletic trainers, significant others, as well as coaches (e.g., see Podlog & Eklund, 2007; Wiese-Bjornstal et al., 1998; Tracey, 2003).

By investigating the different factors involved with athletic injury including predictors of athletic injury, responses to athletic injury, conceptual models of athletic injury, and influence of “key” others in injured athletes’ rehabilitation of athletic injury and return to competition from athletic injury, a better understanding of athletic injury is possible. Furthermore, by maximizing knowledge of athletic injury through these factors involved in athletic injury, performance restoration to pre-injury levels of injured athletes can be improved upon. Social factors are inherent in the athletic injury process. Although interactions between several parties has been investigated (i.e., athlete OR coach OR family), multiple interactions have not been focused on (i.e., athlete AND coach AND family). Thus, the term restoration networks comprise the multiple social outlets associated with athletic injury and athletic injury rehabilitation. Specifically, this study attempted to address this weakness in the literature in order to maximize restoration of performance to injured athletes.

My research purpose was to investigate athletes’ experiences of psychological rehabilitation from sport-related injury in relation to their interactions with others, this is, their restoration networks. The practical purpose of this study was to create guidelines to enhance psychological rehabilitation from athletic injury and thereby assist injured athletes’ restoration of performance levels. This program could work independent of or in conjunction with existing physical rehabilitation programs in order to provide an improved, well-rounded program for athletes’ recovery from athletic injury. I am interested in doing this because I believe sport-related injury rehabilitation would be enhanced, and restoration of performance levels for injured athletes more quickly, if there was a more intentional focus on the psychological aspects involved with athletic injury during the rehabilitation process via the use of restoration networks.

This is an area in need of focus to maximize injury recovery and restore performance levels of injured athletes. In order to address this issue, this study, focused on multiple social interactions involved in athletic injury. Though all social interactions prove significant in some fashion, social interactions which effect injured athletes’ recovery may play different roles based on personal differences of the athletes themselves. Therefore, no specific roles were focused on
in the course of this study. That is, coaches were not left out or only family members focused on. The purpose was to include everyone involved be it a small or significant amount.

In order to measure these multiple interactions, qualitative methodology was used. Open-ended questions in the form of interviews addressed issues dealing with athletic injury and the aspects involved in performance restoration of injured athletes via restoration networks. These interviews were given to injured athletes, and specifically focused on the multiple social roles affecting their recovery from athletic injury. Therefore, the central research question to be examined in this study was “How do student-athletes experience social interactions with others in affecting their psychological rehabilitation from sport injury?” Though outside the direct scope of this specific study, several sub-topical questions in addition to my central research question existed which helped guide my research. How do political forces impact views and treatment of athletic injury? What role do institutions of sport (i.e., high school, intercollegiate) play in the approach taken towards athletic injury? How does the role of sport in society shape views on athletic injury and how it is received? Essentially, I wanted to review the way outside forces have shaped current ideologies regarding perceptions athletic injury as I believe these views help formulate the answers to my central research question.

Chapter 2
Method

Participants

Participants included six Division I athletes at a mid-sized Midwestern university. All participants were collegiate athletes competing at the varsity level. IRB approval was obtained for completion of this study. Participant 1, who will be referred to as Tiffany, was a white, female collegiate athlete of 19 years of age, who competed in field hockey. Participant 2, referred to as Susan, was a white, female collegiate athlete, 23 years of age, who was competing in her last year of eligibility in cross country and track and field. Participant 3, who will be named Katie for this study, was a white, female collegiate athlete and was 21 years old. Participant 3 competed in synchronized skating. Participant 4, who will be referred to as Steve, was a white, male collegiate track and field athlete and was 20 years of age in his junior year of college. Participant 5, who will be called Jessica, was a white, female collegiate track and field athlete and was 18 years of age. Participant 6, named Andrew for this study, was a white, male
collegiate track and field athlete of 19 years. All participants competed in their respective sports at a mid-sized Midwestern university.

Research Approach and Philosophy

For this study I borrowed from a phenomenological approach. According to Schram (2006) and Cresswell (2007), a phenomenological study aims to describe how several individuals have experienced a particular concept or social phenomenon, and is further characterized by two orienting concepts: *epoche* and *life-world*. *Epoche* refers to the “ability to suspend, distance ourselves from, or ‘bracket’ our judgments and preconceptions about the nature and essence of experiences and events in the everyday world” (Schram, 2006, p. 99). *Life-world* is “one’s ordinary conscious experience of everyday life and social action” (Schram, 2006, p. 99). A phenomenological perspective aims to obtain a universal grasp of this concept or phenomenon. Within this, the researcher attempts to explain the “what” and the “how” of the participants’ experience of concept or phenomenon (Cresswell, 2007). Problems best suited for phenomenological research are ones in which the researcher deems it important to understand the participants s/he is studying and examine the common or shared experiences around a social concept or phenomena. Similarities are looked for in the data and these are constructed into overall themes. These themes are then used to describe study participants’ experience of the concept or phenomenon being studied. The end goal of phenomenological research is to have readers of the research have a better understanding of the concept or phenomenon studied after reading the research.

Within a phenomenological approach, I focused towards explaining the phenomenon of psychological rehabilitation from athletic injury and how Division I intercollegiate student-athletes perceived or experienced their psychological rehabilitation from their athletic injury and how this was impacted by means of the injured athletes’ restoration networks. The participants interviewed experienced the phenomenon of athletic injury, which was central to using a phenomenological approach (i.e., to understand the phenomenon I must talk to those who have first-hand experience of this phenomenon). Further, I gained insight into the shared experiences of the individuals I interviewed. According to Schram (2006), phenomenological research seeks to target understanding of the meaning of lived experience and the essence of a particular concept or phenomenon. Phenomenological research starts with two basic questions: What have
you experienced in terms of the phenomenon? What contexts or situations have typically influenced or affected your experiences of the phenomenon (Cresswell, 2007)? These questions were then followed by additional open-ended questions. I therefore included these two basic questions, along with open-ended questions, in my interview guide when I conducted my research. These questions led to an understanding of the shared or common experiences, an overall grasp of the social phenomenon of psychological rehabilitation from athletic injury from the perspective of intercollegiate athletes, and how this was affected via injured athletes’ restoration networks.

The most applicable lens for viewing my research problem was an interpretive lens. This lens is closely related to a social constructivist paradigm. According to Cresswell (2007), assumptions of the social constructivist paradigm include individuals wanting to understand the world around them in which they both live and work. In that, individuals develop subjective meanings of their experiences, and these meanings can be both varied and simple which means the researcher tends to look for the complexity in such issues as compared to narrowing meaning down to only several categories or ideas.

Schram (2006) discusses how an interpretive lens looks to understand the knowledge and beliefs of people and how the knowledge and beliefs are constructed through interaction with others over time. The focus is on particular people, in particular places, and at particular times. Furthermore, the meanings that individuals make are situated in numerous contexts including different social, political, and cultural contexts. Hence, in making sense of my results I needed to keep in mind the social, political, and cultural contexts of intercollegiate athletics and sport-related injury. Psychological rehabilitation from athletic injury involves interaction with others and the beliefs of how to properly do so results from experience of interactions over time. It is situated in multiple contexts, for example, the social context in which it is situated has shaped present views on athletic injuries and how they are viewed and treated (i.e., sport organizations, societal views). The end result of an interpretive lens is not necessarily change-oriented, but all research results in change in some fashion in a new way of thinking about a particular social phenomenon.

An interpretive position seems to take a very encompassing view of the problem and everything involved within the problem. By taking an interpretive position, I was able to point
out a specific problem (i.e., psychological rehabilitation from athletic injury). Also, interpretive positions allowed a focus on individuals and do not seek to generalize. Finally, phenomenology expected that there will be multiple and diverse experiences of the phenomenon of interest. Researchers using a phenomenological approach recognizes that individuals have multiple and diverse experiences, and thus want to provide a description of the “universal essence”.

Procedure

According to Mason (2002), qualitative interviews are conducted for a variety of reasons. For the purpose of this study, qualitative interviews were used due to the fact I view knowledge as situational, contextual, and interactional. Therefore, instead of a static/a-contextual survey I needed to conduct qualitative interviews that are as contextual as possible; that is, I needed to see that the interview ‘conjured up’, as fully as possible, the social experiences and processes which I was interested in exploring (p. 64). This means that I had to ask interviewees to talk me through specific injury rehabilitation experiences in their lives rather than asking them, for example, what they ‘would do’ or what they have ‘generally done’ or what they think ‘others would do’ or ‘others would think.’ I wanted to maximize the interview’s ability to produce situated knowledge about processes and experiences. I followed up with questions relevant to them and their context – not simply a pre-scripted set of interview questions.

Qualitative interviews need to be thought of as a “conversation with a purpose” (Mason, 2002). This means the interviewer must engage in detailed and rigorous planning for the interview as well as be able to make a lot of spot decisions (Mason, 2002). It is important that the interview questions focus on lived experiences, not hypothetical scenarios and abstract concepts. It is important to ask questions that answer your research questions, listen to what is being said, probe accordingly, and do not make assumptions (Mason, 2002).

According to Shank (2006), silence is a part of communication of which interviewers must be aware. I have difficulty in dealing with silence because I feel a constant need to fill this void. However, it is important to allow silence to be part of the conversation so the interviewees have sufficient time to think and reply to questions. By this, silence served as a function letting the interviewees know I was not there to dominate our conversation. Rather, I wanted to portray the feeling that they had ample time to mention anything that may come to mind, and sometimes thoughts do not come to mind immediately. I think I was able to relate to the injured athletes and
deal with the sensitive issue of athletic injury and the athletic injury recovery and rehabilitation process due to previous personal experiences as an injured athlete, yet I was still cautious not to impose my beliefs or assume too much.

As suggested by Shank (2006), I began the interview with my main, or grand tour, question regarding the experiences the athlete has had with athletic injury. Following were mini-tour questions that helped me to sufficiently probe the athletes’ thoughts and feelings enough to get the information I wanted. The interview ended when I felt all questions had been answered sufficiently and/or the interview’s natural flow of energy decreased (Shank, 2006).

The interviews took place in a study room at the university library. This location was accessible and public yet relatively quiet and free of distractions. I arrived 15 minutes before the scheduled interview to set up the room and test the tape recorder. Once the interviewee arrived and before beginning the semi-structured qualitative interview, I again explained the purpose of the study, asked the study participant if s/he had any questions, gave them the Consent Form (Appendix F) and asked them to sign this form. I then gave them the Background Information Sheet (Appendix G) and asked them to complete it. Once that form was complete, and the tape recorder functioning was tested, the interview began (see Appendix E: Interview Introduction Script). However, I first reminded the study participant that s/he may choose to not answer any question(s), should ask me for clarification of any question not understood, may stop the interview at any time for any reason, and that there is no “right” or “wrong” answers – that I am only interested in her/his experiences and perceptions. I then asked the first or “grand tour” question (Spradley, 1979 in Shank, 2006). The Interview Guide (Appendix B) served as just that – a guide – for the interview; a reminder of what questions/issues I wanted to explore during the interview. I conducted what Shank (2006) refers to as “the classic field interview” (p. 46) in that the interview allowed me to “discover the everyday lived world of the interviewee” (p. 46). From here I searched for meaningful themes that may arise from their interactions within athletic injury rehabilitation. When starting out the interview, I began by asking descriptive questions with what Shank (2006) refers to as a “sense of uncertainty and apprehension” (p. 38). This allowed me to build rapport with my interviewees. Throughout the interview I asked probing or follow-up questions, seeking to understand the meaning of what the interviewee told me. When all of the questions that are part of the Interview Guide (Appendix B) were addressed and I felt
the interview was coming to an end, I asked the interviewee if there was anything else that s/he could tell me about her/his perceptions and experiences concerning how student-athletes experienced interactions with their restoration networks in the process of psychological rehabilitation from sport injury that she/he had not had the opportunity to say (see Appendix H: Interview Concluding Script).

After each of the individual interviews ended, the study participant was debriefed about the purpose of the study. I also asked her/him if she/he had any questions for me and again thanked her/him for participating. Further, I asked if s/he would like a copy of my final report (and if so, determined where to send the report). Once the study participant had left the room I completed the Contact Summary Form (Appendix I) in order to capture my immediate impressions and thoughts about the process and content of the interview.

Those who conduct qualitative research think about sampling differently than those who conduct quantitative research (Cresswell, 2007; Mason, 2002). This is because qualitative research is concerned with practical and resource-based issues, as well as questions of focus. Mason notes that strategic sampling is often used in conducting qualitative research. In strategic sampling it is important to cover a relevant range of contexts of phenomena. In other words, a variety of experiences, cases, examples, etc. will serve to provide a picture of wider universe, however still not representing it exactly (Mason, 2002). Further, there are several types of strategic sampling, including purposive, which will be used in this study. Purposive, or theoretical, sampling is concerned with constructing a sample which is meaningful theoretically and empirically, because it builds in certain characteristics or criteria which help to develop and test your theory or argument (Mason, 2002). In other words, the researcher selects participants and sites to study because they can purposefully inform an understanding of the research problem and central phenomenon in the study (Cresswell, 2007). According to Mason (2002), you should begin by thinking about your sampling universe in relation to your sampling strategy, and ultimately, your research focus.

I used purposive sampling in this study. That is, I contacted individuals who were collegiate athletes who had experienced athletic injury. I did this because I know that these individuals would provide information about athletic injury, and more importantly, rehabilitation from athletic injury psychologically and how this was affected via the injured athletes’
restoration networks. My sampling universe consisted of Division I collegiate athletes who had experienced a sport-related injury that had, at minimum, prevented them from participating in competition for one month. Specifically, these were current collegiate athletes who had experienced such an athletic injury during their collegiate athletic careers. I hoped to gain insight into their perceptions of their interactions with others, their restoration networks, and additionally how the injured athletes had experienced these interactions with their restoration networks in relation to enhancing and/or inhibiting their psychological rehabilitation from their athletic injury.

As noted previously, purposive sampling was used to select the participants for my study because as Mason (2002) defines it, I wanted to construct a sample that is meaningful empirically and theoretically. My aim was to sample as many athletes as needed to reach theory saturation, which is sampling until you know you have a picture of what is going on and can explain it (Mason, 2002). As Mason (2002) notes, “sample size should help you understand the process rather than to represent a population and it should be an ongoing and dynamic process” (p. 134). I began by asking graduate assistant coaches and other athletic department personnel if they knew of any athletes that fit the criteria of my study and who they think would be willing to participate. In addition to this, I used my own involvement within the athletic department to directly contact participants personally who fit the criteria of my study and see if they may be interested. Further, I contacted the athletes referred to me and ask if they were willing to participate in the study. I contacted participants by using the Initial Contact Script (Appendix C). When the athletes agreed to participate in the study, I arranged a date and time for the interview that was convenient to the study participant. I also asked athletes for their email address so that I could send a reminder e-mail (see Appendix D: Reminder E-mail) to them the day before our scheduled interview meeting.

Data Analysis

Shank (2006) lists four common phases in qualitative data analysis. The first is defining what type of analysis is to be used (i.e., qualitative inquiry vs. science), second is data classification, third is making connections among the different classes of data, and finally is representing the results of the data analysis. Additionally, Cresswell (2007) discusses data analysis in qualitative research as consisting of several basic strategies beginning with
preparation and organization of the data for analysis. Second is the step of reducing the data into themes through coding/condensing codes. As Shank (2006) discusses, “coding is a process of selective attention” (p. 147). In other words, you must include anything you deem relevant in answering your research purpose/question (Shank, 2006). Finally, the data are represented through figures, tables, and discussion.

The processes of data collection, data analysis, and report writing are often done interchangeably in what qualitative researchers term “learn by doing” (Cresswell, 2007). Cresswell (2007) describes the process as the data analysis spiral. The first step includes data organization; this is followed by gaining a sense of the holistic nature of the data before breaking it apart by using such tools as memos. Through memos, qualitative researchers are able to make short notes in the data analysis process to gain a better overall sense of the data. These memos are often short, simple phrases or ideas that are written down in various places (i.e., margins of transcripts). This is followed by the process of coding the data in which researchers provide a detail description of the data, develop a set of themes or other sort of classification system so as to provide an interpretation of the data, and include several additional aspects including the use of a priori, or existing, codes (Cresswell, 2007). Next, the researcher progresses into breaking apart the data and interprets the data into categories, themes, or dimensions of information (Cresswell, 2007). In this, researchers “…step back and form larger meanings of what is going on in situations or sites” (p. 154) (Cresswell, 2007). The last step in the data analysis process is to present the data (i.e., visual representation) (Cresswell, 2007).

This particular study used the data analysis techniques outlined by Creswell (2007) for a phenomenological approach. All analyses were based on transcriptions and written evidence of the process. The first step involved was describing personal experiences within the phenomenon being studied. I did this through my Preliminary Sense of the Problem (see Appendix A) which provided a full description of my personal experience with the phenomenon. This was needed so as to “set aside” or bracket these experiences and focus on the participants in the study. Next, a list was developed of significant statements of how the participants experienced the phenomenon, considered these significant statements as of equal importance, and developed a list of non-repetitive, non-overlapping statements. This step, according to Cresswell (2007), required careful analysis of the interview transcriptions. Third, significant statements were
identified as into “meaning units” or themes, which required me to go through the significant statements found in the previous step and carefully theme these statements. Cresswell (2007) further discusses what forms a “meaning unit”, what is termed a slice of data. Meaning units are simply the words from the qualitative interview that comprise the raw data. Following this, a verbatim description of “what” the participants in the study experienced involving the phenomenon being studied was constructed. In other words, I had to analyze what exactly happened in terms of the participants’ perceptions and experiences of the phenomena being studied. After that, a description of “how” this experience happened was written. Finally, a composite description of the “what” and “how”, what Cresswell (2007) refers to as the essence of the study, was given. For this, a visual representation encompassing the data for participants was constructed.

The standards for judging the quality of qualitative research are somewhat different than those used in quantitative research because of the different assumptions qualitative researchers make about what is and how we come to know “truth” or reality. According to Cresswell rather than terms like validity, reliability, and generalizability, qualitative researchers are apt to use terms such as credibility, trustworthiness, and transferability (Cresswell, 2007). However, Johnson (1997) claims there are notions of validity about which qualitative researchers should be concerned. These include descriptive validity, interpretive validity, theoretical validity, and possibly even internal validity and external validity.

Descriptive validity refers to reporting descriptive information, such as description of events, settings, etc., accurately (Johnson, 1997). Interpretive validity refers to the accurate description and understanding of information by the researcher as intended by the participants (Johnson, 1997). Theoretical validity refers to the degree in which a theoretical explanation suits the data from a study. Internal validity is how much an observed relationship is causal (Johnson, 1997). Finally, external validity is crucial when wanting to generalize findings from a particular study to other individuals, settings, or times (Johnson, 1997).

Several techniques were utilized to ensure high quality in this study. The first of these was to reduce researcher bias through reflexivity. Johnson (1997) discusses reflexivity as a method of critically self-reflecting upon one’s beliefs and predispositions about the social phenomenon being studied. If one consciously recognizes one’s assumptions, one is then better
able to “bracket” such ideas and thus counter researcher bias. Researcher bias arises in all research but the techniques of dealing with it are different in quantitative and qualitative research. By utilizing reflexivity in qualitative research, the researcher is able to increase awareness of potential beliefs and predispositions and admit to these in the research resulting in a stronger study.

The second technique used to increase the theoretical validity in this study is peer review (Johnson, 1997). By having an outside party willing to challenge my work, search for weaknesses in my research, and question my research as a whole, I was able to recognize weaknesses in my research, consider previously not thought of interpretations, and better understand my research. Peer review could be conducted with either an outside party familiar with one’s research topic or an outside party who knows nothing about it, but either helps to enhance the quality of one’s study. In this particular study, an additional researcher analyzed the data independent from the principal researcher until common ground was found among the results of the study (i.e., themes, meaning units).

An additional technique used was extended fieldwork. Extended fieldwork states that qualitative researchers should collect data in the field over an extended period of time (Johnson, 1997). With this study, I was able to afford the time to spend extensive time in the field collecting data. For my interests, this did not include observations but rather an increased amount of interviews with an increased amount of injured athletes.

Chapter 3

Results

This study asked the question, how do student-athletes experience social interactions with others in affecting their psychological rehabilitation from sport injury? Based on analysis of the qualitative interview data, seven themes were constructed: Social Support, Role of Self, Identity Issues, Separation from Others, Feelings, Sociocultural Shaping of Injury Experience, and Degree of Involvement. Various subthemes emerged from the data as part of the broader overall themes (see Table 1 for listing of themes and subthemes).

The theme titled Social Support described the different ways the injured athletes involved perceived support psychologically when rehabilitating from their athletic injuries. Athletes’ responses regarding social support surrounding their injuries could be categorized into three
subthemes: Need for Support, Support Figures, and Types of Support Techniques. The sub-theme titled Need for Support described the ways in which the injured athletes thought of support in its various forms as important and helpful. Susan mentioned the multiple ways in which social support could be utilized, saying “it would be harder just to sort of see, like, um, what you’re actually running for I guess, because you have your team and your support and you’re kind of like ok that’s why I want to get better” and “when I had the lack of support it [lack of support] just made it a lot harder for me to like, really like be sure about whether I wanted to come back or be sure that this was the correct decision I guess [to participate in sport]…or like the right thing for me, I kind of questioned whether I was cut out to be a collegiate athlete and all that kind of stuff so, um, and then obviously the supportive coach, um, I was sort of like found that love for running again”. Jessica noted the importance of social support as well, saying “oh yeah I think it’s [athletic injury] a big huge mental thing too cause you’re injured, depending on social support”.

Sub-theme 2, Support Figures, encompasses the numerous existing figures which were seen as support providers by the injured athletes. These figures provided the support which formed the aforementioned restoration networks, and were generally categorized into five overall categories: Teammates, Coaches, Family, Doctors, and Athletic Trainers.

Numerous types of support exist. The third sub-theme within the overall theme of Social Support was titled Types of Support Techniques and aims to describe the different types of strategies that were used to provide support to the injured athletes.

The first type of support observed was tangible, which can be defined and exemplified as “concrete instrumental assistance, in which a person in a stressful situation is given the necessary resources (i.e., financial assistance, physical help with tasks) to cope with the stressful event” (Rees & Hardy, 2000). Katie gave an excellent example of tangible support while injured, stating “I mean we [her and her roommates] live on the second floor of our apartment building so they [friends] were always helping to carry stuff or driving, we [friends] would drive places and stuff”. Andrew also noted the presence of tangible support in his rehabilitation process saying “he [strength and conditioning coach] would, you know, adapt the workouts for me and change it up so I could do some different things so I wouldn’t fall so far behind the other guys and stuff [while injured]”.

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The second type of support observed was informational, which can be defined as “providing the individual with advice or guidance concerning possible solutions to the problem” (Rees & Hardy, 2000) and can be demonstrated as data, advice or guidance helping someone to deal with the injury (Murphy, 2005; Podlog & Eklund, 2007).

The third type of support mentioned was emotional, or “the ability to turn to others for comfort and security during times of stress, leading the person to feel that he or she is cared for by others” (Rees & Hardy, 2000). Tiffany provides an excellent example of others, specifically teammates, providing emotional support, saying “my teammates were always there for me even when I couldn’t be at practice they would call me regularly about like ‘hey we’re going to dinner’, there was never a time I was truly alone because they [teammates] were there, but it was like I felt alone because I wasn’t able to play and I didn’t have the things I was used to having…so, there, there’s never been a time since I’ve been here where I’ve been truly alone and didn’t have support whether it be from the coaches or my teammates or anything, which kinda helped a lot coming in to my freshman year, like, it showed me I was in the right place you know?”. Susan echoed the presence of emotional support with the statement “so it’s more just like verbal, like emotional support”. Lastly, Steve recognized the presence of emotional support as well stating “teammates are just there to give you support, more emotionally than it would be physically”.

The theme titled Role of Self described the different ways the injured athletes themselves played a pivotal role in their respective processes dealing with athletic injury. Athletes’ responses included in the theme resulted from questions pertaining to question concerning what it took to rehabilitate successfully from athletic injury, and pertained to both physical and mental perspectives. This theme included three sub-themes: Self-Motivation, Responsibility, and Commitment to Rehabilitation.

The sub-theme titled Self-Motivation described the ways in which the injured athletes themselves provided motivation to complete the difficult task of dealing with athletic injury on a personal level. Tiffany stated “it comes with being an athlete, like if you want it bad enough you will get to where you need to get and if you don’t you will be stagnant and won’t be at the progression you want to see [improving with rehabilitation]”. Katie also noted the importance of self-motivation with the statement “I mean you can be a pretty driven person but it’s pretty easy
just to give up [when injured]”. Andrew noted the importance of self-motivation in terms of rehabilitation saying “Yeah I mean because as an individual you have to be able to push yourself [to properly rehabilitate]” and “it has to come from within to want to do it [rehabilitation]”.

Responsibility. Sub-theme 2, Responsibility, described the ways the interviewed athletes took responsibility to a degree in dealing with the athletic injury and included three additional “mini-themes” or interpretable sub-themes within this sub-theme: Responsibility for Injury, Personal Responsibility for Remaining in Contact with Others, and Handling One’s Own Emotions.

The first mini-theme, Responsibility for Injury, described the ways in which the injured athletes took responsibility for the athletic injury. Andrew said “If you’re not injured I think you should at least rehab like just to get more flexible and, you know, add that .2 seconds to your 40 [40 yard dash] just by rehabbing I think, I mean, in all aspects you’re always wanting to get better as an athlete and rehab can help out so” and “it kind of all goes back to you in the beginning, or in the end rather [concerning rehabilitation]”.

The second mini-theme, personal responsibility for remaining in contact with others, described the ways in which the injured athletes took responsibility for remaining in contact with others despite being separated due to athletic injury. Steve mentioned this, saying “So like if you show interest in what they’re [teammates] are doing they’ll [teammates] like know that you want to like, um, be concerned with how you’re doing too I guess [in terms of rehabilitation]”.

The third mini-theme in the sub-theme of Responsibility was handling one’s own emotions. Handling the multitude of emotions associated with athletic injury was a responsibility as seen by Andrew who said “Yeah…it’s big to just get it [emotions] out there and just tell them [coaches] how I was feeling just helped out not holding it [emotions] all in I guess” and “Yeah you can’t just be down on yourself and that’s all you think about like how you’re coming along [rehabilitation]…that’s not going to get your team any better”.

Commitment to rehabilitation. Sub-theme 3 under the broad theme of Role of Self, was Commitment to Rehabilitation, and described the ways in which rehabilitation had to be adhered to in order to achieve a proper recovery and restore sport performance levels. Jessica stated “I remember it being easy like if nobody is watching me like maybe not doing that extra step or whatever [in rehabilitation]”. Andrew went further with several quotes, saying “and I think in a lot of athletes, you
know, they want to rush back, but then, you know, because of the circumstances you have [athletic injury]...you can get hurt worse and being out longer and not helping the team...and just overall, you know, you have to do what the trainer tells you and, you know, take the time to get to healthy before you come back fully...”, “stretching has been a big impact on a lot of my rehab...it’s just really do what your trainers tell you to do you know?”, and “I would say just like the commitment to your rehab is going to make you more confident because as you see the progression you’re going to want to, like, keep doing more and more [in rehabilitation]”.

This theme, similar to the theme of Role of Self, resulted in answers from questions targeting what exactly it took on the athletes’ part to successfully rehabilitate from athletic injury. Specifically, probing questions arose about obstacles which arose during the rehabilitation process. This theme contained three sub-themes: Questioning Athletic Identity/Loss of Athletic Identity, Negative Body Image, and Realization/Acceptance of New Image.

**Questioning athletic identity/loss of athletic identity.** To many athletes participating in athletics defines who they are. This can be taken away from the athlete and one such pathway is athletic injury. Questioning Athletic Identity/Loss of Athletic Identity helps describe the ways the injured athletes felt this had occurred within their own athletic injury which was specific to Tiffany, who stated “and then once I couldn’t do things with my team [being injured], like, it took the athletic part about it [one’s life], and that’s a huge part of my life [athletics]”.

**Negative body image.** In some instances, athletic injury can have negative side effects and the theme of Negative Body Image serves to describe this, once again specific to Tiffany who said “like whether it be Facebook pictures or anything like that, your cheeks get bigger, your hips get wider like with, with everything so just like overall body image” and “just women in athletes in general we’re all self-conscious about how we look whether it be we’re bulky or, you know, we’re overweight, or anything like that...I think it just would have given me more confidence to keep me, like, because there was a time where I didn’t do anything because I was just depressed you know? And um, that was probably like a good, probably 4 weeks where I was just like I’m going to eat what I want, I’m going to gain weight anyways, can’t do anything, and I mean, that’s the mental thing that I had to overcome and I feel like if we’re [injured athletes] able to work out still, it wouldn’t have been that way...just because, you, you, when you’re
working out you’re more conscious of what you’re putting into your body and how you feel you know?

Changes as athletic injury can bring about new perceptions. *Realization/Acceptance of New Images* aims to describe how injured athletes perceived a new image post-injury. Susan said “it’s going to take time [rehabilitation], I mean, you have to look at the MAC championships and stuff like that…longer down the road…they [teammates] understand that now so I think they’re starting to adapt and like helping out a little bit [with rehabilitation]…” as well as stating “I guess just like when someone makes you feel like you can’t really get back up to your full potential [athletic potential], um, that’s kind of like hard to hear um…and I know sometimes that’s just like the realistic point of view of it [rehabilitation]”. Katie added to this saying “just know all the rest of the team has been practicing for however long you’ve been out [with athletic injury] so you can’t get mad when you’re not clearing the height they[teammates] are, you just have to like give yourself time cause they’ve [teammates] been working on it [sport] for 3 months and not to get frustrated when you can’t get a drill or maybe like spend some extra time after practice getting down and just trying to go away every day with a high note instead of a low note”.

A profound theme that arose was *Separation from Others*. This theme concentrated on aspects associated with the athletic injury and the corresponding rehabilitation that made the athletes feel separate from aspects of their pre-injury perspectives. This theme was comprised of five sub-themes: *Lack of Communication, Felt Alone, Not Part of the Team, Lack of Knowledge by Others,* and *Letting Others Down*.

*Lack of Communication* describes the ways in which the athletic injury experience, specifically rehabilitation from athletic injury, was impacted. Katie noted feelings of separation due to non-communication during her rehabilitation stating “They [student athletic trainers] are the only ones who like relay it [information regarding injury/rehab] back to me”. Andrews further supported this saying “Well like the trainers like, some of the trainers don’t really tell the coaches what my progress was [with rehabilitation] and like what I could do in the weight room and stuff” and “And I kind of felt communication lacking [concerning rehabilitation]”.

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Some of the interviewed participants felt alone as a result of being separated due to the athletic injury. Sub-theme 3, *Felt Alone*, helps to describe this. Tiffany noted this with the statement “I felt like I didn’t have any friends [once being separated from others with athletic injury]”.

Separation from others, specifically the team, was highlighted in sub-theme 3, *Not Part of the Team*. Tiffany noted her feelings of not being part of her team, saying “like one of the major things that affected me was that I couldn’t do things with my team [while injured]”. Andrew described this in further detail saying “um, like mentally…I mean, it’s [athletic injury] going to drain you…thinking you know…thinking you’re injured and you’re not helping the team and you, you feel like you’re taking away from the team by being injured and like mentally it [athletic injury] affects you so much so that you, like you…I’m not quite sure how to say this but…I don’t know, I mean, mentally I think it [athletic injury] just affects everything like, especially with athletes like I mean, my school work didn’t go down but, I mean, you’re always thinking about when am I going to get back [from athletic injury], when am I going to be…you know 100 percent again [in respective sport]”.

Athletic injury is unique to the athletes who are injured and all the implications connected with such an event may not be recognized by someone not experiencing this particular phenomenon. *Lack of Knowledge by Others* targets this. Andrew exemplified this stating “um…well the reason I think they [teammates] came in later on [in the rehabilitation process] was because, I started to, I got better [from injury]…and at the beginning they [teammates] didn’t know…if they [teammates] would have known how severe it [athletic injury] was at the beginning I think like the process [rehabilitation] would have been a lot easier on me, um, and they [teammates] would have understood where I was coming from”.

Some athletes may feel they let others down, including teammates and coaches. These emotions were captured through sub-theme 6, *Letting Others Down*. Andrew stated “but you feel like you’re letting down the team and the coaches…and you kind of can tell that they [coaches] are upset but it’s not like you want to be injured either” and “and I mean…it’s just that whole aspect of, you know, being hurt and mentally thinking about how you’re letting everybody [teammates] down and I’ve had kind of an individual journey I guess so far [with athletic injury]”.

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The name of this particular theme, *Feelings*, involves exactly what it implies – feelings expressed in relation to the athletic injury rehabilitation via the injured athlete and contained sub-themes: *Being Scared, Frustration, Rejection, Lacking Confidence, Motivated, Self-Determination, Mastery of Personal Milestones, Feeling Inconvenienced, and Acceptance.*

Injured athletes experience an array of emotions. Sub-theme 1, *Being Scared*, described one of these emotions. Susan mentioned this saying “so I’m constantly like worried about it [athletic injury] still for some reason…so it’s definitely made me more nervous about it [athletic injury] and I like notice it [athletic injury] more and the whole deal so”.

Frustration was another emotion felt by the injured athletes and is described in sub-theme 3, *Frustration*. Tiffany was frustrated during times of her rehabilitation and expressed this with the quote “I didn’t want to do anything but sleep and you know, cell phone ‘mom let me come home’ you know just because I was so frustrated [with the athletic injury]”.

Some injured athletes felt rejected by others due to the athletic injury. Sub-theme 4, *Rejection*, helps to describe this as experienced by the injured athletes. Andrew felt rejected by his teammates “um, some of the comments [negative comments concerning the respective athletic injury], some of the guys on the team…they were upsetting at the beginning…um, kinda, you know, made it [rehabilitation] that much more harder on me doing like feeling I was letting down the team not being able to compete for like 2, 3 indoor meets [indoor track meets]” and “and just their [teammates] comments and the way they [teammates] acted around me when I tried coming back [from athletic injury] and couldn’t do some of the stuff [training] just because of the pain [associated with the athletic injury] and stuff…it was kind of depressing [athletic injury process]”.

Injured athletes often experienced a loss of some sorts. Sub-theme 4, *Lacking Confidence*, describes at least one. Tiffany noted how she suffered with confidence issues due to athletic injury, saying “I went through a really tough phase [with rehabilitation] where it was like I didn’t think I would be able to run again, you know, you really just lack the confidence of, like, what you were [former athletic self]”.

Not all emotions experienced with athletic injury are negative. Sub-theme 5, *Motivated*, describes the ways in which injured athletes were motivated by success in their athletic injury rehabilitation and had a sense of self-determination to continue to improve and get better.
Tiffany noted being motivated at times stating “just like the light at the end of the tunnel [improvements in rehabilitation]”.

Another positive emotion was seen as the injured athletes achieved milestones during the rehabilitation process. This is described with sub-theme 6, *Mastery of Personal Milestones*, as Tiffany exemplified “once you can see that you can, I can kind of walk or I can kind of stand on my toes now, like, it’s, it’s really, like, fulfilling, like to get an A on a test or something [analogy with improvements in rehabilitation]”.

Sub-theme 7, *Feeling Inconvenienced*, dealt with aspects of athletic injury as not being capable of doing things that were easily done before (i.e., walking) and usually accompanied additional equipment (i.e., crutches). Tiffany mentioned this with the quote “I’m not going to walk to the Rec [Recreation Center on campus] just getting out of the boot, I don’t want to catch a bus”.

Others understanding the injury and accepting the injured athlete arose as an important sub-theme, *Acceptance*. Andrew noted the importance of acceptance of the injury by others with Andrew stating “but I mean it’s getting better [others’ perceptions and treatment] like people [teammates] are starting to understand it’s a pretty bad injury” and “it was a lot easier because he [coach] understood where I was coming from [with athletic injury] like not being able to do some stuff because it [athletic injury] was hurting so bad”.

The theme *Social Pressures* showed the profound impact society and societal views have, with athletic injury and athletic injury rehabilitation being one of them and included four sub-themes *Influence of Injury Severity on Experience*, *Athlete as Commodity*, *Rationalization of Sport to Perform While Injured*, and “Set Plan” Approach to Injury.

*Influence of injury severity on experience* was the first sub-theme which was a commonly mentioned theme was how injury severity affected the overall experience of athletic injury. Tiffany exemplified this stating “I think depending upon your injury, I know time was the major thing [spent in rehabilitation], and that’s the most frustrating because you can’t do anything [in terms of sport]”. Susan further described the effect of injury severity stating “Yeah I think it [rehabilitation] differs per injury, like this one [current athletic injury] wasn’t as intense you know [as previous athletic injuries]?” and “I think it [rehabilitation] depends on the manner of the injury… I feel like it [rehabilitation] just depends on the severity of it”.

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Sub-theme 2, *Athlete as Commodity*, describes the ways injured athletes felt as if they were being used as commodities within sport, or a product to be used by others for success (i.e., coaches), as if the athlete is literally a tool for success. In this instance, the athlete may feel as if he/she is being focused on only for talent irrespective of personality characteristics. Susan noted this with the quotes “because they’re [coaches] anxious for me to get back on the ice is they’re [coaches] main concern” and “I feel like the coaches would want you to keep going [participating in sport] so that they [coaches] don’t lose an athlete”. Andrew mentioned this as well stating “I mean in sports like being a D1 (Division 1) athlete, you know, it’s [being an athlete] everything to you…I mean, education comes first and all but sports are right up there at the top” and “um, I think especially like your college sports and your professional sports like injuries are treated like at the top of the line, like you’re going to get the best out of everybody just because they [support staff] want you to get back into your sport, they [support staff] want you to be 100 percent and, you know, be able to perform and be able to help the team out…and I think, um, I mean they’re [support staff] going to offer you, you know, the MRIs, the XRAYs, they’re [support staff] going to, I mean they’re [support staff] doing whatever it takes to get you back regardless [from athletic injury], I mean regardless of how much time you’re out [missing sport due to athletic injury] they’re [support staff] going to push you every day until you get back to where you were or even better”.

Sub-theme 3, *Rationalization of Sport to Perform While Injured*, describes the ways in which injured athletes still yearned to compete and be active despite being injured. Athletes are socialized to rationalize injuries to their bodies as acceptable, and in particular to train and compete with injuries because the outcome (i.e., winning) is deemed more important than their health. Susan specifically mentioned this stating “I think with runners we are so determined to try to keep running through anything even when we’re injured, um, we almost have to be told not to run in order to actually stop [running]”. Jessica also mentioned how performance was vital and athletic injury was to be avoided at all costs saying “you only get four years [of participation in college athletics] and you don’t want that [athletic injury]…be one of those years to have that [athletic injury]”.

“*Set Plan*” approach to athletic injury. Having a “set plan” approach to rehabilitating the athletic injury was often times seen as a negative by the participants. Susan noted “yeah, yeah, they [athletic trainers] kind of just said ok this is what’s going on [description of athletic...}
injury] and here’s what you’re going to do [rehabilitation] they really didn’t give me any alternative [treatment].” Katie mentioned how she perceived treatment options as being limited through the quote “I would have to go in for treatment and I would just kind of go in, in, and work with the trainers and, um, did therapy and stuff and that’s just kinds of like going through the motions it was never really…my decision I guess [in terms of treatment]?”. Steve noted this further stating “I mean, it’s the thing when they [athletic trainers] first assess you they’re [athletic trainers] like oh well this is what it is [athletic injury] and then they put you on a plan [treatment]” and “she [athletic trainer] has her [athletic trainer] mind made up before she is even going to treat you [athletic injury], I mean you say you have knee pain and it’s like oh this is what you gotta do [treatment], and then it’s [treatment] not even like specific to your injury it’s more like knee pain? Boom. Stem, ice, blah blah blah”. Steve also noted how this had occurred previous to the current athletic injury, saying “I think it [rehabilitation] would be, um, just in my experience is, it [rehabilitation] would be, it [rehabilitation] would be the interaction between the athletic trainer and the athlete in that the athletic trainer not be like the know-it-all”.

The last theme, Degree of Involvement, describes the ways in which others interacted with the injured athletes several different ways providing different perceptions by the injured athletes themselves and contained three sub-themes: Too Much, Too Little, and Wants/Needs/Recommendations.

At times, a lot of involvement by others could be perceived either positively or negatively as sub-theme 1, Too Much, along with the quote from Tiffany describes, “and he [personal trainer] was like you have to push it, there’s a difference between, um, it [athletic trainer] hurting in an injury way or it [athletic injury] hurting like you’re trying to strengthen it [injured area]…and that right there, I went through like a two day thing where I was so mad at him because he would like, I felt like he couldn’t understand or anything like that [emotions]…but it [motivation] wasn’t really a negative, it was a way of pushing me [to get better] because by the end of Christmas break I was doing a 25 pound calf raise”.

Under-involvement by those involved with the athletic injury and the athletic injury process could be perceived by multiple emotions, but as seen with these particular subjects, often times it is a negative perception, and is exemplified through the sub-theme Too little. Susan noted under-involvement with several quotes stating “but I think it could have been, there could have
been more done [treatment], I could have strengthened the muscles around it [athletic injury] more, maybe? I don’t know”, “when I did tell one of the coaches during the summer, she [coach] showed some concern but was just sort of like, well there’s not much you can do about it [athletic injury] right now”, as well as “normally they’re [surgeons], they’re [surgeons] like very involved but they [surgeons] weren’t that involved in this one [athletic injury], so I was kind of like skipped”.

Under-involvement led to mention of feelings of void spots in the rehabilitation process. This is exemplified through the sub-theme Wants/Needs/Recommendations. Often injured athletes felt the rehabilitation of athletic injuries could be improved upon or changes could have been made. This is described in sub-theme 9, Wants/Needs/Recommendations. Tiffany noted this with the quote “I would like to be doing more underwater stuff [with rehabilitation]” and Andrew stated “um I think if our trainers were more open and like sent out emails saying this is what he [injured athlete] could do [in terms of rehabilitation] I think would have made the coaches and weight coaches and all their lives a lot easier [in dealing with rehabilitation]”.

Summary

Analysis of the data revealed several things. First, the data was able to be combined into seven overall themes as all participants shared aspects within these themes in some way. The particular group of participants involved in this study seemed to share many of the same views to some effect. Though not all participants were directly quoted in every theme and/or sub-theme, all participants seem to view athletic injury and the rehabilitation process somewhat similarly.

The detail gathered from the semi-structured interviews allowed a more in-depth look at athletic injury and the athletic injury process from the perception of the injured athletes themselves.

Chapter 4

Discussion

The purpose of this study was to investigate athletes’ experiences of psychological rehabilitation from sport-related injury in relation to their interactions with others, termed, their restoration networks. The central research question examined in this study was “How do student-athletes experience social interactions with others in affecting their psychological rehabilitation from sport injury?” Several sub-topical questions, in addition to my central research question,
helped to guide my research. How do political forces impact views and treatment of athletic injury? What role do institutions of sport (i.e., high school, intercollegiate) play in the approach taken towards athletic injury? How does the role of sport in society shape views on athletic injury and how it is received?

Emergent Themes and Links to the Literature

Seven broad themes emerged from the data that represented athletes’ thoughts and feelings about their experiences with injury in sport. These themes were: Social Support, Role of Self, Identity Issues, Separation from Others, Feelings, Social Pressures, and Degree of Involvement.

Social support plays an integral role in recovery from athletic injury and Social Support proved to be an important overall theme in the data of this study. A variety of both social interactions and social support were seen in the data (Udry, 1997). As seen through the sub-theme of Support Figures, social support was provided by a variety of interacting persons thereby providing different sources of social support. This builds upon previous research showing that strong perceptions of social support aid in an improved recovery (Barefield & McCallister, 1997; Magyar & Duda, 2000). This is exemplified through both positive and negative interactions of social support by the injured athletes who were interviewed. Different sources of social support can be perceived differently, however the important variable is social support in itself leading to an improved recovery from athletic injury (Barefield & McCallister, 1997; Corbillon, Crossman, & Jamieson, 2008). Social support was seen as a helpful tool throughout the rehabilitation process by all participants, agreeing with previous research showing that lack of social support can prove detrimental to the recovery process (McLaren & Challis, 2000; Tracey, 2003).

Previous research has shown social support to aid in development of different personality characteristics such as mental toughness and coping (Connaughton et al., 2008; Thelwell, Weston, & Greenless, 2007; Udry, 1997). This was seen in several occasions in terms of this overall theme, Role of Self, in that mental toughness and other personality characteristics are seen as helpful in aiding recovery from athletic injury in the participants interviewed. This supports previous research showing social support, in combination with personality characteristics are important determinants of improved recovery from athletic injury.
Identity Issues supports previous research through the multiple appraisals associated with athletic injury (Tracey, 2003). In order to accept a new identity, a currently “non-athletic” self, one must accept the injury has occurred and the injured athletes’ current state. This in turn will lead to improved recovery via proper appraisals (Tracey, 2003). Fear is an emotion which can result from loss of fitness and missing practices and other athletic events (Tracey, 2003). Both of these arose in current findings as issues injured athletes faced.

Being separated has been a major factor of previous athletic injury research and this study purports this in the overall theme Separation from Others resulting from the data. Separation from others results in a need for social support (Murphy, 2005), leads to negative thoughts and emotions (Tracey, 2003; Gould et al., 1997a), and calls for a need for social interactions (Podlog & Eklund, 2007). These previous research points were sustained through this study as separation led to a variety of other variables (i.e., feelings).

Athletic injury and the recovery process from athletic injury have resulted in a multitude of feelings and emotions both in previous research as well as the current study. Feelings as stress from the injury (Gould et al., 1997a), coping (Hanin & Hanin, 2009; Hanton & Mellalieu, 2006; Udry, 1997), fear (Gould et al., 1997b), and a variety of emotions (Tracey, 2003) were all results seen in the current findings supporting previous research. Social support proved helpful in countering these feelings, both positive and negative, by social support. Several modes of this exist including discussing the injuries (McLaren & Challis, 2000; Wiese-Bjornstal et al., 1998) were both mentioned in previous research which arose in the current findings.

Society has a profound influence on many happenings and athletic injury and athletic injury rehabilitation is no exception. Previous research has focused on “sport ethic” and “culture of risk” originally theorized for a wide variety of situations but has gained much focus within sport (Wise-Bjornstal et al., 1998; Young, 2004). This notion leads to acceptance of pain and pain interpretation as parts of sport (Pargman, 1999; Young, 2004). Current results support this through participants mentioning competing through pain and linking injury severity with subsequent views and treatment. Furthermore, interpretation of injury severity as impacting subsequent views is an excellent example from current research supporting previous research on social influence (i.e., “culture of risk”) as well as appraisals of the injury affecting treatment (Podlog & Eklund, 2007). However, some societal views have negative impacts, as exemplified
through the theme *Set Plan*. Through this, the injured athletes felt a lack of control and/or had feelings of being controlled through limitations in treatment.

Though this study supports the social support as positive, part of the results did in fact show social support to be perceived as negative. Previous research, though limited, has shown that social support can be perceived negatively if the social support given was perceived as over-involvement (Gould). In the overall theme, *Degree of Involvement*, specifically in the sub-theme *Too Much*, some effects due to social support had a negative connotation.

**Conceptual Model of the Data**

To provide a comprehensive understanding of the data gleaned from this study, Figure 2 attempts to illustrate the “big picture,” or how the themes and subthemes may be examined interactively to illustrate the restoration process that athletes experience as the result of injury. Although the intent of the study was to study social influences on athletes’ rehabilitation from injury, the findings also emphasized that athletes experience a spectrum of feelings and self-perceptions that are an important psychosocial component of injury rehabilitation. That is, they have a restoration network of people which provide unique types of support, but the broader restoration process includes their psychological responses to the injury and the social world within which they are undergoing rehabilitation.

The athletic injury itself is at the core of the model, and the severity and timing of the injury influences the restoration process. Additionally critical to the process and to the conceptual model is the role of the athlete themselves. The self is central in their own respective support networks through personal self-motivation and determination despite the existence of social support. After athletes sustain their injuries, the rehabilitation and recovery process is mediated by social influences, psychosocial responses, and cultural forces related to the subculture of competitive collegiate sport. As shown by the arrows in the figure, these three categories interact with one another as part of the restoration process.

**Social influences.** As the main focus of the study, the key social influences that mediated injury rehabilitation in this study were separation from others, the need for support, and the importance of a multidimensional network (right side of model). Athletes felt a sense of separation and isolation, needed support, and they spoke of the importance of getting various types of support from different sources. Emotional and “shared reality” support came from
teammates, who were in a position to offer empathy based on their own probable experiences with injury. Family members seemed to provide unconditional emotional support, while friends and roommates were critical in providing tangible support to help athletes with daily needs. Athletic trainers, physicians, and coaches provided informational support that helped athletes better understand their injuries and the objectives of rehabilitation. Clearly, this restoration network was important in providing layered webs of support; seemingly like threaded nets to “catch” athletes and hold (support) them within its multiple layers.

**Psychosocial responses.** Athletes experienced various psychosocial responses within their injury rehabilitation processes, including a wide spectrum of feelings, issues surrounding their identities, and a realization of the important of themselves as self-determining agents of their own recoveries (left side of model). The spectrum of feelings ran from the negative emotions of fear, frustration, lacking confidence, and feeling impaired to the more productive feelings of determination, motivation, acceptance, and personal mastery. As described by the athletes, their different social support figures influenced these feelings by helping them with negative feelings, and enabling them in different ways to move toward experiencing the more productive feelings (as depicted by the horizontal arrow in Figure 2).

Similar to feelings, athletes also experienced a range of identity issues as they initially questioned or felt loss of their athletic identities or experienced negative body image identity, but also moved through the process to realize or accept new images as the result of their injuries. This is a form of reintegration of self as part of the resilience process (Thelwell, Weston, & Greenless, 2007), which has been shown to occur in athletes as the result of setbacks, including injury (Galli & Vealey, 2008). Psychologically, athletes also realized the importance of self as a key psychosocial response to injury. This involved self-motivation, taking responsibility, committing to their rehabilitation, and handling their emotions.

**Cultural forces.** As shown in Figure 2, cultural forces served as the undergirding foundation that influenced the ways in which athletes thought about and experienced their injuries and rehabilitation process. That is, within the restoration model, cultural forces served as the foundational structure upon which social influences and psychosocial responses developed. This means that the injury experiences of athletes were socioculturally shaped by the collegiate sport structure within which they lived, trained, and competed. Athletes spoke of feeling of
serving as commodities to their coaches, or a product used to attain success in the athletic program. Also, athletes’ responses – and others’ responses to them – were influenced by the rationalization of sport success as the most important outcome. They felt they should compete or train despite injury, which is part of the mentality of being a tough and competitive athlete.

Overall, athletes described the importance of their restoration networks, and it was evident how these networks were based on the unique subculture of collegiate sport. The psychosocial responses of the athletes were clearly influenced by this culture as well as the social influences from their restoration networks. This process is depicted in Figure 2 and offers a new way of viewing the dynamic process of athletic injury and athletic injury rehabilitation.

Future Research Directions

An inherent weakness in this design is that only Division I collegiate athletes were targeted. Multiple levels of competition exist which yield situations to be investigated concerning the role of restoration networks towards athletic injury and athletic injury rehabilitation. The aforementioned term “restoration networks” encompasses many variables including social support, coping mechanisms, as well as different personality characteristics, and these play significant roles in addition to the focused on Division I collegiate level, all of which were found in the results of this study. However, future research should concentrate on different levels of competition (i.e., NCAA, elite) as well as organized sport versus unorganized sport (i.e., club level) to assess the role restoration networks play toward athletic injury and athletic injury rehabilitation.

The fact that qualitative interviews were used to investigate athletes’ perceptions of the role of others and their affect on the athletes’ athletic injury rehabilitation offers some limitations. That is, the interviews were conducted when it was convenient for the athletes who are being interviewed. This could present problems in the fact that in-season versus off-season athletes could present conflicting views towards their perception of others’ impact on their athletic injury rehabilitation. In addition, no control existed towards what types of athletic injuries were encountered (i.e., degree of severity, length of rehabilitation, injury history). However, it is believed the complexity of situations that faced by the athletes in this study revealed insight into the complex situation that is athletic injury and athletic injury rehabilitation,
and provided new insight for both researchers and practitioners in the field of athletic injury and athletic injury rehabilitation.

The practical purpose of this study was to ultimately create guidelines to enhance psychological rehabilitation from athletic injury and thereby assist injured athletes’ restoration of performance levels. As previously mentioned, this could be used in conjunction with or independent of existing physical rehabilitation programs to assist in an improved, holistic rehabilitation to athletic injury.

Results were expected to show restoration networks, mainly comprised of social support and related factors, as playing a significant role in athletic injury and prove pivotal in athletic injury rehabilitation. It was thought this would result from the evidence of past research showing the importance of social support. However, this particular study planned to extend previous research by concentrating on restoration networks. That is, this study investigated social support from multiple angles and concentrated on the impact of multiple social roles (i.e., coaches, athletic trainers, strength and conditioning coaches) and shows its increased impact in the role of athletic injury and athletic injury rehabilitation. Though the results showed that restoration networks as defined through this study proved beneficial, it was but a small part of a big picture. Instead of restoration networks proving to be the foundation of athletic injury and athletic injury rehabilitation, the results of this study show it to be the core idea mediating all other surrounding factors involved within athletic injury and athletic injury rehabilitation (see Figure 2).

This study will make its impact by proving the importance of restoration networks as an important, previously unknown, piece of athletic injury rehabilitation. This in turn will utilize restoration networks to revise a commonly utilized conceptual model dealing with athletic injury, the integrated model (see Figure 1), to provide the most recent to date mode of understanding the athletic injury and athletic injury rehabilitation process. Ultimately, this will enhance behaviors of individuals who have relationships with injured athletes to improve athletic injury rehabilitation resulting in performance restoration following an athletic injury. However, if this does not prove to be significant, this provides an implication as other factors will need to be explored to find a connection between additional factors and athletic injury and athletic injury rehabilitation.
References


Table 1.

*Themes, sub-themes, sub-sub-themes.*

1. Social Support  
   - Need for Support  
   - Support Figures  
   - Types of Support Techniques
2. Role of Self  
   - Self-Motivation  
   - Responsibility  
     - Responsibility for Injury  
     - Personal Responsibility for Remaining in Contact with Others  
     - Handling One’s Own Emotions  
     - Commitment to Rehabilitation
3. Identity Issues  
   - Questioning Athletic Identity/Loss of Athletic Identity  
   - Negative Body Image  
   - Realization/Acceptance of New Image
4. Separation from Others  
   - Lack of Communication  
   - Not Part of the Team  
   - Lack of Knowledge by Others  
   - Letting Others Down
5. Feelings  
   - Being Scared  
   - Frustration  
   - Rejection  
   - Lacking Confidence  
   - Motivated  
   - Mastery of Personal Milestones  
   - Feeling Inconvenienced  
   - Acceptance
6. Social Pressures  
   - Influence of Injury Severity on Experience  
   - Athlete as Commodity  
   - Rationalization of Sport to Perform While Injured  
   - “Set Plan” Approach to Athletic Injury
7. Degree of Involvement  
   - Too Much  
   - Too Little  
   - Wants/Needs/Recommendations
Figure 1. An Integrated Model of Response to Sport Injury.
Rationalization of Sport to Perform While Injured Athlete as Commodity

Sociocultural Shaping of Injury Experience

Cultural Forces

INJURY (severity, timing)

Separation from Others
Need for Support
Importance of Multidimensional

Identity Issues
Importance of Self
Spectrum of Feelings

Psychosocial Responses

Social Factors
Appendices
Appendix A: Preliminary Sense of a Problem

Thinking of my preliminary sense of a problem was relatively easy as I have been interested in the effects of athletic injury on injured athletes for quite some time. I am especially concerned with the rehabilitation process in order to return to competition from athletic injuries. By analyzing how I specifically came to this problem, I will further recognize everything that helped form the problem. Furthermore, different influences will be discussed about the formation of the problem including personal understandings, a desire for change, scholarly interests, serendipity, intuition, autobiographical influences, casual or informal inquiry into others’ experiences, and casual or informal observation as outlined in Figure 2.1 in Chapter 2 of Schram (2006). I have extensive personal experiences of athletic injury. I feel that intuition relates to these, so I will discuss all these points as being the same. Being an athlete, I know how athletic injury can have a psychological effect. I have been injured numerous times. Some of these injuries have been minor, while others have been fairly extensive. When originally thinking on this topic, my mind goes immediately towards the first major injury I sustained, a broken collarbone. Next, my thoughts wander to when I sustained a knee injury during my collegiate career. I remember going through extensive physical therapy for both injuries, but nothing was directed to the mental aspects related to this issue. I remember my biggest fear was the first time I really had to exert myself physically and being uncertain as to what would result from the strain placed on the previously injured area. I knew I had pushed myself to the maximum level physically, so theoretically nothing should happen. However, I was very nervous as to what might occur. I remember telling myself the worst thing that could happen was that I would be injured again. I have been through the process once, so I can do it again, but who really wants to go through the entire injury process again? I never had any help guiding how I should go about thinking and trying to recover mentally from my injuries. I can say I would have benefited from some kind of intervention helping me in this, and I can also be confident in saying I believe others would feel the same way. I have gained more knowledge after conducting a review of the literature but this only resulted in increased interest towards this particular topic.
An additional issue bringing me to this, my preliminary problem, especially after reviewing the literature and finding what I thought to be a gap in the literature, was the fact that the psychological aspects of athletic injury, in my opinion, are not being treated accordingly. In doing my review of the literature, limited studies have focused on the psychological issues involved in athletic injury (i.e., coping, rehabilitation adherence), while seeming to focus only towards individuals (i.e., athletic trainer OR family). Ideally, I would like to supply a psychological rehabilitation program that could be implemented either independent of or in conjunction with a physical rehabilitation program. Further, this program would consider the multiple parties often involved with injured athletes because to my knowledge no previous studies have focused on this. Furthermore, to my knowledge, no program or set of guidelines exists that is comprised of the views of multiple parties in order to enhance psychological recovery from athletic injury. By taking account of the multiple parties with whom an athlete interacts, I feel athletes would be able to make a stronger psychological recovery post-injury returning to competition. In doing so, performance levels will be maximized to pre-injury levels more efficiently.

Next is the issue of scholarly interests. As stated, many studies have looked at elements contained in athletic injury (i.e., coping, social aspects, rehabilitation adherence) so it is an important focus within sport psychology. What I believe to be gaps are present in this area of research, and increasing research in the focus of athletic injury will only improve this area. Athletic injury is an area within sport psychology that has gained much attention, and I would like to do what I can to benefit this area.

I have actually thought about conducting some kind of research about athletic injury for some time now. While an undergraduate, I wrote a thesis about how participation in sport affects different psychological characteristics, specifically self-efficacy, self-concept, and emotional well-being, across level of competition (i.e., high school vs. college). With this study, we began in a similar manner as of current through brainstorming a topic and approach. The topic I chose was interesting, but as I was brainstorming about possible topics, the thought of athletic injury came to mind as well. I was not sure how I would attack it, but I knew it seemed interesting to me. So after doing the previous study, I told myself that if I had to do another study, I would
focus on athletic injury. I guess if I had any moments of serendipity, whatever led me to this hunch, would be considered my “ah hah!” moment.

According to Schram (2006), causal or informal inquiry into others’ experiences plays a role in furthering my interest in athletic injury. As stated, unfortunately I have had my share of personal experiences with athletic injury and trying to recover both physically and mentally. While being involved in sport the vast majority of my life, I have also observed numerous injuries that others, both teammates and non-teammates, have suffered. I have seen how injuries have been dealt with in many, individualized ways. It has been interesting to see the variety in which injuries have been dealt with, and I believe that I can contribute to this area by standardizing a way of psychologically recovering from athletic injury. While not taking part in any formal inquiry regarding others’ athletic injuries, I do remember trying to console others after suffering injury. I did not do much because I know how tricky dealing with an injury can be and how this can vary greatly on an individual basis. Therefore, I did not ask anybody about how they were affected or dealing with the injury, just simply provided encouraging words or remarks as I deemed necessary.

The notion of casual and informal observation extends off the previous topic of casual and informal inquiry. As stated, I did not talk to anyone or ask any questions about their injury, how they were dealing with the injury, different recovery techniques, etc. Yet, I have spent much time observing others (and myself) deal with injury, from the practice field to the dorm room. In addition, within physical rehabilitation I have been around others who are there for wide variety of reasons (i.e., for sport injuries and non-sport injuries). I was always very hesitant to discuss a person’s injury with the person as dealing with athletic injury is very individualized and can be a touchy subject. I figured I would play it safe rather than risk something bad happening. This is what led to more observation as compared to inquiry. However, if I would have had the education I am obtaining now, or with the increased understanding I will hopefully have after completing a study on the matter, I will be more ready to help individuals deal with their athletic injury. As said, I have gone through rehabilitation with individuals at rehabilitation clinics that were not recovering from athletic injuries, but athletic injuries present themselves differently and are what I want to focus on. Athletic injuries tend to be different in their severity (i.e., torn ACL vs. sprained ankle). With athletes and athletic injury, different injuries are seen;
therefore different rehabilitation for these athlete injuries is seen as well. I am particularly interested in the different manner in which athletic injuries are approached and rehabilitated.

I am ultimately interested in athletic injury because I would really like to pursue this in terms of my career. Sport psychology is focused on performance enhancement, and athletic injury provides a major setback in terms of performance. I am really interested in the best way to treat injuries psychologically in order to maximize the rate athletes return to pre-injury performance levels. Not only is this an area of interest, I really think this will impact the field of sport psychology in a positive way. Furthermore, I know personally what it is like to deal with athletic injuries, both physically and psychologically. Not only would I benefit the field for others, but I would personally benefit individuals one at a time.

By assessing the many aspects of what has composed my preliminary sense of a problem, I am able to see some of the things involved in forming my problem or question. Some of these areas have been apparent to me, while others have not. However, it is important to examine all areas of interest and all assumptions when conducting qualitative inquiry.
Appendix B: Interview Guide

1. Could you tell me about your experiences of athletic injury?
   a. What injury/injuries have you been treated for? How did this injury/these injuries occur? How are you being treated for this injury/these injuries? How long did you have to spend in rehabilitation? How long did it take you to get back to practice/competition?

2. Could you tell me, in your experience, what kinds of things you think influence or affect your rehabilitation from athletic injury? What do you think it takes to rehabilitate from athletic injury?
   a. Some research I’ve been reading says…. 

3. Are there any individuals who you see playing a role in your experiences of rehabilitating from athletic injury mentally? If so, who and how so?

4. How does this person/these individuals play a role in the rehabilitation of your athletic injury mentally?

5. Are there any ways that you think your interactions with…. help or hurt the rehabilitation process of your athletic injury mentally? Could you tell me more about this?

6. Do you think athletic injuries should be treated differently than they are? That is, do you see current practices as useful? How do you think any changes would help or hurt the process of rehabilitation mentally from athletic injury?
   a. Do you have any ideas for how interactions with …that might be changed to improve the rehabilitation from athletic injury mentally?
Appendix C: Initial Contact Script

Hello! My name is John Mackersie and I am currently a graduate student at Miami University. I am currently conducting my Master’s thesis. Because of my interest in becoming directly involved with athletes to some capacity in my future career, I have chosen the topic of athletic injury rehabilitation for my project.

I am contacting you to see if you’d be willing to help me out with my thesis. If so, your involvement would be an interview about your experiences and perceptions of athletic injury rehabilitation. I expect this interview will take about 45 minutes.

Is this something you think you could help me out with?

IF YES: Great! Then let me get a sense of when you might be available for an interview…

Is it o.k. if I contact you the day before the interview to confirm it with you? What is the best way for me to reach you?

Also, let me give you my contact information in case you have any questions or concerns….

At this point do you have any questions? O.k. I’ll see you on the ______ at ________!

IF NO: That’s fine! No problem. Thanks for considering it!
Appendix D: Reminder E-mail

Dear ______________:

I just wanted to remind you that you are scheduled for an interview tomorrow at (blank). The interview will take place at (blank). If you have any questions please feel free to contact me by email (mackerjc@muohio.edu) or cell phone (423-645-0463).

Looking forward to our interview and thanks again for your participation!

Sincerely,

John Mackersie
Appendix E: Interview Introduction Script

- Thank you for agreeing to participate in my project. I know that you are taking time out of your busy schedule to participate in this interview.

- I really appreciate your willingness to help me gain a better understanding of athletic injury rehabilitation.

- My goal for this interview is to learn about your experiences and perceptions of athletic injury rehabilitation.

- There are not any right or wrong, good or bad answers. Rather, I am interested in your perceptions, experiences, and insights.

- If any question is unclear to you just let me know. If you don’t want to answer a question just say so. And of course, you are free to end this interview at any time.

- Do you have any questions for me before we get started?

- O.k., let’s get started…

- Letter of Informed Consent

- Background Information Sheet

- O.k., now I guess we’re actually ready to start the interview so let’s make sure the tape recorder is working…
Appendix F: Consent Form

Dear ________________:

My name is John Mackersie and I am currently a graduate student at Miami University. I am currently conducting my Master’s thesis. Because of my interest in becoming involved in athletics and athletes to some capacity in my future career, I have chosen the topic of athletic injury for my project.

You are invited to participate in my project. I will ask you to participate in an interview about your experiences and perceptions of athletic injury rehabilitation. This interview will be audio-tape recorded and transcribed verbatim. Your name will not be associated with your responses in any way (that is, the information you provide will be used anonymously and grouped with the information of other interviews). The interview in its entirety should take approximately 45 minutes. Your participation is voluntary and you may withdraw from the interview at any time or refuse to answer any questions that you do not wish to answer. You will not be asked to do anything that exposes you to risks beyond those of everyday life. The benefit of this project, educationally, is that it will help me gain insight into experiences and perceptions involved with athletic injury rehabilitation, and additionally how this is affected through interactions with others.

If you have further questions about this project, please contact me at (423-645-0463, mackerjc@muohio.edu) or contact the members of my thesis committee, Dr. Robin S. Vealey (513-529-6530; vealeyrs@muohio.edu), Dr. Valeria J. Freysinger (513-529-2710; freysivj@muohio.edu), Dr. Brett Massie (513-529-8105; massiejb@muohio.edu).

Thank you for your participation and for helping me out with my project. I am very grateful for your help and hope that it will be an interesting process for you. You may keep this top portion of the page.
I agree to participate in the project on athletic injury. I understand my participation is voluntary and that my name will not be associated with the information I provide.

Participant’s Signature

Date
Appendix G: Background Information Sheet

Interviewee:

Date/Time/Place:

Sex:       F       M

Race: _______________________

Age: _______

Formal Education:  HS  College  Graduate School  Prof’l School
Appendix H: Interview Concluding Script

- Well, it looks like our interview is wrapping up.

- But before we conclude is there anything else you can tell me that you didn’t get a chance to say that you think will help me gain a better understanding of athletic injury rehabilitation?

- Do you have any questions for me about this project?

- O.k. Well thank you very much for allowing me to interview you and for sharing all of your experiences of athletic injury rehabilitation.

- May I contact you again if I need any clarification concerning anything we talked about or if I have follow-up questions?

- And finally, do you want a copy of your interview transcript or my final report? (if yes, what would be the best way for me to give you that information?)

- Thank you again!
Appendix I: Contact Summary Form

Participant Name/ID: _______________________________________________________
Participant Contact Info: _________________________________________________
Interview Date & Site: _____________________________________________________
Start & Stop Time of Interview: ___________________________________________

1. Summarize what s/he said about [your topic of interest]

2. What were the main issues or themes that struck you in this interview/focus
group/observation?

3. What was the demeanor (e.g., tone, expressions, body language) of the informant(s)
throughout the interview/focus group?

4. Questions to add and/or delete

5. Any other impressions and specifics about this informant/interview?