2008

Exploring the Experiences of the Certified Athletic Trainer and the Athlete Post-Surgery

Sarah G. Cummings
The University of Montana

Follow this and additional works at: http://scholarworks.umt.edu/etd

Recommended Citation
Exploring the Experiences of the Certified Athletic Trainer and the Athlete Post-Surgery

By

Sarah Grace Cummings

Bachelor of Science, The University of Montana, Missoula, MT, 2006

Professional Paper

presented in partial fulfillment of the requirements
for the degree of

Master of Science
Health and Human Performance: Health Promotion

The University of Montana
Missoula, MT

Summer 2008

Approved by:

Dr. David A. Strobel, Dean
Graduate School

Valerie Rich, Chair
Health and Human Performance

Charles Palmer
Health and Human Performance

John Sommers-Flanagan
Educational Leadership
Table of Contents

Chapter 1 ................................................................................................................. 1
  Introduction ........................................................................................................... 1
  Statement of Problem .......................................................................................... 2
  Purpose ............................................................................................................... 2
  Significance ......................................................................................................... 3
  Research Question .............................................................................................. 3
  Delimitations ....................................................................................................... 3
  Threats to Legitimation ....................................................................................... 4
  Definitions .......................................................................................................... 5

Chapter 2 ............................................................................................................... 7
  Overview ............................................................................................................. 7
  Cognitive Models ............................................................................................... 8
  Stage Models ..................................................................................................... 11
  Emotional Reactions to Injury .......................................................................... 12
  Psychological Aspects to Injury ....................................................................... 14
  Certified Athletic Trainers and Injuries .............................................................. 17
  Social Support ................................................................................................. 19
  Goal Setting ..................................................................................................... 19
  Imagery and other Strategies for Rehabilitation ............................................... 20
  Summary .......................................................................................................... 21

Chapter 3 ............................................................................................................... 23
  Introduction ....................................................................................................... 23
  Participants ........................................................................................................ 23
  Research Design ............................................................................................... 24
  Procedures ........................................................................................................ 24
  Instrument ........................................................................................................ 25
  Data Analysis ................................................................................................... 26

Chapter 4 ............................................................................................................... 27
  Results .............................................................................................................. 27
CHAPTER ONE

Introduction

Athletes and sports play an integral role in American society. Individuals participating in athletics may suffer an injury at some point in their career. As athletic participation increases, the risk of injury increases (Brewer, 1998). Approximately 29 million sport injuries occur in the UK each year (Gilbourne & Taylor, 1998). Athletic injuries can affect an athlete’s psychological as well as his/her physical well being. Once an athlete has been injured, a fear of re-injury develops (Heil, 1993), and many other emotions may arise such as anxiety, anger, fear, and a loss of self (Tracey, 2003). When an injury occurs, often times the physical aspect is the focus while the psychological impact may be neglected (Tracey, 2003).

The sports medicine team becomes very important when an athlete has suffered an injury. The certified athletic trainer (ATC) is usually the first contact when an athlete is injured followed by the team physician, team surgeon, physical therapist, and possibly a sport psychologist (Kolt, 2000). The sports medicine team needs to be aware of psychological issues that may arise when athletes experience an injury. The certified athletic trainer spends the most time with the athlete because of time spent before, during, and after practice. The certified athletic trainer is taught to recognize the emotional signs of distress or injury but may not be well-equipped or comfortable to address these issues (Kolt, 2000). Athletic trainers are required to be competent in psychological interventions but it is not clear how well these competencies are met (Kolt, 2000). Athletic training students must complete each competency in his/her athletic training education program in order to graduate. The Athletic Training Educational
Competencies pertaining to psychosocial intervention are listed in Appendix A (National Athletic Trainers’ Association, 2008).

**Statement of the Problem**

Although certified athletic trainers are taught to recognize the psychological signs of an injury, the certified athletic trainer may not know how to address these warning signs. There is also a lack of research on the lived experiences of the collegiate athlete and the athletic trainer for that athlete post surgery. Current research focuses on psychological aspects of injury for an athlete (Bauman, 2005; Kvist, Ek, Sporrstedt, & Good, 2005; Wagman & Khelifa, 1996; Walker, Thatcher, Lavallee, Golby, 2004) but there is not much research on the athletic trainer’s role post surgery working with the athlete and the athlete’s experience working with an athletic trainer post surgery.

**Purpose**

As the first contact to an injured collegiate athlete, the certified athletic trainer needs to be aware if psychological issues are occurring. If a certified athletic trainer can recognize the warning signs of an athlete struggling to handle his/her injury, the certified athletic trainer can intervene and refer the athlete to further help if needed. Therefore the purpose of this review was to examine the lived experiences of the injured collegiate athlete and his/her respective athletic trainer. A presentation will be given to certified athletic trainers after the research has been gathered and analyzed. In addition, a brochure will be developed for certified athletic trainers to reference. The brochure and the presentation will give examples of issues athletes may face after undergoing surgery to repair an injury and the athletic trainer’s experience of working with the athlete during the rehabilitation process.
Significance

The significance of the paper is to help certified athletic trainers address the psychological issues once warning signs are recognized. Certified athletic trainers are taught to recognize different emotional reactions to injury when they are students; however, they are not as adept in working with athletes psychologically during the return to activity phase especially during an injury post surgery (Kolt, 2000).

Research Questions

Athlete

- What are the lived experiences of an athlete post-surgery and how has that affected his/her psychological/mental well-being?
  - What has been your experience working with your athletic trainer during this time and how has he/she helped you mentally in your rehabilitation?

Certified Athletic Trainer

- What are the lived experiences of the certified athletic trainer working with a particular athlete post surgery in regards to the athlete’s psychological/mental health?
  - What has been your experience working with this particular athlete mentally post-surgery?

Delimitations

The interviews conducted in this study were limited to collegiate athletes from the University of Montana who have suffered an injury requiring surgery and are in the return to activity stage of rehabilitation. The ages of the athletes ranged from 18-25 and
were of both genders. The athletes were interviewed regarding his/her post-surgical experiences. The certified athletic trainers of the athletes interviewed were also interviewed regarding his/her experience working with the respective athlete post-surgery. The certified athletic trainers are employed through the University of Montana.

**Threats to Legitimation**

Threats to legitimation were minimized by member checking through follow-up interviews, triangulation of data, audit trail, and peer debriefing (Onwuegbuzie, 2002). Member checking is when the researcher takes the information from the interview and presents it to the interviewee to determine if anything has been missed or is interpreted incorrectly (Johnson & Christensen, 2004). Triangulation was performed by using multiple sources such as multiple interviews, multiple people interviewed, observation, and existing literature (Johnson & Christensen, 2004). By conducting follow-up interviews, the data was triangulated by the athlete and certified athletic trainer verifying what the researcher has written is accurate (Johnson & Christensen, 2004). Another way to verify the data was to leave an audit trail which was accomplished by keeping all documentation and research used in the study (Onwuegbuzie, 2002). Another measure of legitimation was peer debriefing where an outside source with no connection to the study read the data and reviewed the themes to see if the themes were identified appropriately.

There is limited generalizeability of the results of this study to other colleges/universities that are similar to the University of Montana. Many of the smaller colleges/universities may not have the resources available to their athletes as the university has here. Another limiting factor is the risk of the participants having a history of mental health issues prior to being injured. A way of controlling this was to examine
the medical health history filled out by the athlete when they come to the University as an athlete. The medical health history screens for mental health disorders and provides physicians and athletic trainers information and steers treatment guidelines. If an athlete has stated on the medical history form he/she have a mental health disorder, he/she was excluded from the study. The researcher asked the athlete for permission to read his/her medical health history form to determine if the athlete’s has a predisposing mental health disorder.

Other threats to legitimation include researcher bias. Onwuegbuzie (2002) stated researchers may generalize the results rather than search out the underlying themes or processes. Researchers should only generalize when a large sample is used. Another threat to legitimation was the timeline of the study. The research was conducted at one point in time. The study would have more temporal validity if the researcher was able to follow the athletes over time throughout the whole rehabilitation process (Johnson & Christensen, 2004). Another researcher bias was that the researcher has undergone shoulder surgery and was going through the rehabilitation process while conducting this research.

Definition of Terms

**Kinesiophobia:** This is an irrational fear of movement because of feeling vulnerable or being afraid of painful re-injury (Kvist, Ek, Sporrstedt, & Good, 2005).

**Outcome goal:** This focuses on the outcomes of events and is based on comparison with other competition (Evans & Hardy, 2002).

**Process goal:** These types of goals are what the athlete will focus on during a performance (Evans & Hardy, 2002).
**Performance goal:** This also focuses on the outcome, but has more to do with reaching personal standards (Evans & Hardy, 2002).

**Certified athletic trainer:** “Certified athletic trainers are health care professionals who specialize in preventing, recognizing, managing and rehabilitating injuries that result from physical activity. As part of a complete health care team, the certified athletic trainer works under the direction of a licensed physician and in cooperation with other health care professionals, athletics administrators, coaches and parents” (National Athletic Trainers’ Association, 2008 ¶1).

**Phenomenology:** This describes the lived experiences of individuals regarding a concept (Creswell, 1998).
Overview

Participating in sports is a huge part of society across the world. Any night of the week, a person can turn on the TV and find a sporting event to watch. With the participation in athletics comes the risk of injury. Heil (1993) reports that approximately 17 million athletes sustain a sport related injury in America each year. Studies have been completed on different aspects of athletes, injuries, psychological processes that athletes go through, psychological models used, re-injury, and how different members of the rehabilitation team play a role in the athlete’s recovery. After an injury, an athlete may experience a myriad of emotions such as fear (Wagman & Khelifa, 1996), denial, anxiety, worthlessness, and depression (Bauman, 2005). After returning from an injury, the athlete may fear being re-injured which may predispose him/her to re-injury (Kvist, Ek, Sporrsedt, & Good, 2005).

Certified athletic trainers are part of the rehabilitation team for most athletes. As a result, the certified athletic trainer needs to be aware of the different emotional reactions and when the athlete is experiencing these emotions, how to address the issues surrounding the emotions. One way a certified athletic trainer can help the athlete during rehabilitation is to set goals for the athlete to reach. Goal setting has been shown to increase adherence to the rehabilitation plan and increased self-efficacy (Evans & Hardy, 2002). Other strategies that athletic trainers may use include imagery, coping skills, and progressive muscle relaxation to help the athlete through the rehabilitation process. Below are a few examples of models provided for certified athletic trainers to use in
understanding the cognitive processes and stages athletes may go through. This review of literature covers different cognitive and stage models that may be useful to a certified athletic trainer when working with an athlete during his/her rehabilitation. These models may pertain to surgical or non-surgical injury rehabilitation.

This review of the literature will discuss different cognitive and stage models that may be used, psychological aspects to injuries, emotional reactions to an injury, and certified athletic trainers and injuries. Different strategies such as coping, social support, imagery, and progressive muscle relaxation that certified athletic trainers may use when working with athletes will also be discussed. This review of literature will explore how certified athletic trainers can assist the athletes during his/her return to activity post surgery.

**Cognitive Models**

Several cognitive models have been developed in order to help health care professionals understand the psychological responses to injury (Udry, 1997). Cognitive models were developed to allow for differences between athletes such as how he/she views the injury (Wagman & Khelifa, 1996). Below is the Injury Response Model as described by Udry (1997):
Step 1: Injury
  • History
  • Severity
↓
Step 2: Cognitive Appraisal
  • Perceived Severity
  • Perceived Controllability
↓
Step 3: Emotional Response
  • Qualitative
  • Intensity
↓
Step 4: Coping Response
  • Changing Stressor
  • Changing response to stressor
  • Other
↓
Step 5: Behavior Response Adherence

Udry (1997) uses this model to show how athletes psychologically experience an injury. Social support is an integral part of stress reduction and reduces the likelihood of events perceived to be stressful. The first step of this model is the injury itself. Step 2 is very important because the health care professional needs to be aware of how the athlete assesses the injury (Udry, 1997). The athlete has different emotional responses during step 3 and how he/she copes with the emotional responses takes place in step 4. During steps 2 and 4, social support is given by the rehabilitation team and other outside sources such as family, friends, and coaches. There is also a relapse stage where re-injury occurs or there is a setback in rehabilitation which takes the athlete from step 5 back up to step 2.

Another example of a cognitive model used by health care professionals addresses psychological issues in athletes such as: fear, disbelief, reinjury, anger, depression, noncompliance, and stress/anxiety. The cognitive model focuses on how an athlete perceives the injury.
This model demonstrates how personal and situational factors play a role in how the athlete cognitively appraises the injury. Based on the cognitive appraisal, different emotional and behavioral responses emerge. The personal factors which may influence how an athlete may cognitively appraise the injury include: self-esteem, past history of injuries, and coping skills (Wagman & Khelifa, 1996). Situational factors consist of where the athlete is at in his/her career, duration of injury, the sport, and level of pain (Wagman & Khelifa, 1996). Below Wagman and Khelifa (1996) discuss the different steps of a psychological intervention.

There are six steps in counseling an athlete including: 1) the initial consultation, 2) affect management, 3) facilitate communication, 4) general psychological skills, 5) social and emotional support, and 6) return to sport. The first step focuses on understanding the psychological status of the athlete and interventions are determined. In step 2 the athlete is introduced to the plan the rehabilitation specialist foresees for the rehabilitation. The focus is to bring out different emotions surfacing in regards to the injury. In step 3, the rehabilitation specialist discusses with the athlete the severity of the injury. The main focus is to get the athlete to understand all aspects of the injury. The rehabilitation specialist’s job in step 4 is to pass on general psychological skills to the athlete. In step 5, social support and reassuring the athlete of his/her value to the team, family, and friends is the concentration. Step 6 is used to alleviate the athlete of any fears.
as he/she returns to activity. The rehabilitation specialist must help build the confidence of the athlete and determine the athlete’s readiness to play (Wagman & Khelifa 1996).

**Stage Models**

Stage models suggest that injured athletes’ progress through certain stages while rehabilitating (Wagman & Khelifa, 1996). This interactional theoretical model is a combination of a cognitive and stage model. The purpose of this model is to allow for psychological interventions.

Personality → History of Stressors ← Coping Resources

<table>
<thead>
<tr>
<th>Personality</th>
<th>History of Stressors</th>
<th>Coping Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locus of control</td>
<td>Life events</td>
<td>General coping behaviors</td>
</tr>
<tr>
<td>Sense of coherence</td>
<td>Daily hassles</td>
<td>Social support systems</td>
</tr>
<tr>
<td>Competitive trait anxiety</td>
<td>Previous injuries</td>
<td>Stress Management and Mental Skills</td>
</tr>
<tr>
<td>Achievement motivation</td>
<td></td>
<td>Medication</td>
</tr>
<tr>
<td>Self concept</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stress Response

<table>
<thead>
<tr>
<th>Stress Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive appraisal</td>
</tr>
<tr>
<td>Demands</td>
</tr>
<tr>
<td>Resources</td>
</tr>
<tr>
<td>Consequences</td>
</tr>
</tbody>
</table>

Harris (2003) discussed the integration of stage and psychosocial theories into the rehabilitation of injured athletes to assist certified athletic trainers with recognizing the student athlete’s psychosocial development and to refer student athletes as needed for psychosocial help. Two models discussed include the Kubler-Ross stage theory and the Chickering and Reisser psychosocial developmental theory. Harris (2003) states that the Kubler-Ross model is not enough when working with athletes. The Kubler-Ross model has four stages including: denial, anger, depression, and acceptance. If student athletes
are not mature enough to accept their injury and move on, they will not heal. The Chickering and Reisser theory helps the certified athletic trainer determine if the athlete is mature enough to handle the injury and if not, to refer them on to the appropriate sports medicine professional. The Chickering and Reisser theory has seven vectors including: 1) developing confidence, 2) managing emotions, 3) moving through autonomy toward interdependence, 4) developing mature interpersonal relationships, 5) establishing identity, 6) developing purpose, and 7) developing integrity. Certified athletic trainers should be able determine which vector the athlete is in. In order to determine which vector the athlete is in, the certified athletic trainer must put in the time to get to know the athlete. This is accomplished by casually asking questions when stretching an athlete or when doing other treatments. Taking time to develop a rapport with the athlete and actively listening to the athlete’s problems helps the certified athletic trainer understand the athlete’s reaction to an injury.

Emotional Reactions to Injury

Bauman (2005) discussed how stress can be a risk factor for athletic injury. Two different responses to athletic competition include a positive affective set and a negative affective set. The positive affective set consists of personal excitement, challenge, energy and achievement. The negative affective set consists of anxiety, fear, dread, and distress. After injury, athletes are more likely to develop a negative affective set which can affect the quality of their rehabilitation. The emotional responses to injury are: “denial, anxiety, depression, anger, resentment, frustration, hopelessness, loneliness, worthlessness, impatience and general overall negativity” (Bauman, 2005, p 434).
When an athlete experiences an injury, many pressures may be put upon the athlete to return to competition as soon as possible and therefore inhibit the rehabilitation process. Lavallee and Flint (1996) also stated the rate of injury is significantly related to high competitive trait anxiety and tension/anxiety. The severity of injury was related to tension/anxiety, anger/hostility and a negative mood state. Weiss and Troxel (1986) reported that athletes expressed negative self talk patterns, emotions, and the overwhelming response of not being able to cope with the injury. Many of these athletes also experienced somatic complaints which are physical symptoms such as muscle tension, nausea, fatigue, inability to sleep, and a lack of appetite (Weiss & Troxel, 1986).

Rotella (1988) states, in The Injured Athlete that an athlete experiencing an injury may go through similar emotions as someone who has lost a loved one. Rotella suggests that athletes may suffer an identity crisis when their season or participation in a sport is terminated because of an injury. Athletes should not view the injury as hopeless and believe that they will never recover from it. Athletes should focus on controlling their negative self talk and replace it with self enhancing thoughts (Rotella, 1988). Granito (2002) also states athletes may experience a loss of identity. Some athletes view sport as his/her whole life and when it is taken away can feel like the athlete is losing a part of his/herself. Along with the loss of identity, the athlete may feel his//her role on the team has diminished.

A panel of team physicians composed a consensus statement regarding how the team physician should address the psychological issues associated with athletes and injuries. In this consensus statement, it was stated that there is no “injury prone” personality type but there is a relationship between stress and the risk of athletic injury. The physicians
defined stress as “the demands of a situation exceeding the resources to respond to those demands.” (American College of Sports Medicine, 2006, p. 2031) Team physicians need to recognize that psychological factors may play a role in increasing the risk of injury. Team physicians should educate coaches and parents regarding psychological factors influencing the risk of injuries. In regards to the psychological reactions accompanying injury, athletes engage in coping responses and try to come to terms with their injury. Emotional responses to injury include: feeling sad, isolated, irritated, unmotivated, frustrated, angry, loss of appetite, lack of sleep, and feeling disengaged. Another common response to injury is depression, which may have a more significant impact than all the other responses. If an athlete is experiencing depression, all other emotional responses can be magnified. Therefore, the team physician needs to understand different emotional responses to injury. The team physician can also take a part in promoting psychological support systems and monitoring the athletes’ moods.

During rehabilitation, the physicians stated that athletes experience less stress when treated with a complete rehabilitation program addressing the psychological aspects. Team physicians need to be aware of emotions that can affect the process of healing such as identity loss, apprehension, and no confidence. (ACSM, 2006) During this phase, team physicians should build trust with the athlete, help the athlete to understand his/her injury and answer any questions regarding the injury whether it is in regards to the physical or psychological aspects of injury.

Psychological Aspects of Re-Injury

Many studies have looked at the psychological aspect of re-injury. Heil (1993) suggests that injury could result from changes happening physiologically and
psychologically. These changes can impact performance and in the end, increase the chance of being injured (Walker, et al, 2004). When an athlete fears being re-injured, his/her concentration and/or confidence diminishes. A lack of confidence along with lack of trust in the injured part generates a fear of re-injury (Walker et al, 2004). The more the athlete thinks about re-injuring him/herself, the more likely re-injury will happen.

One study explored the psychological aspects of returning to activity after anterior cruciate ligament (ACL) reconstruction using the Tampa Scale of Kinesiophobia (Kvist, Ek, Sporrstedt, & Good, 2005). One particular study looked at 87 patients who were 3-4 years out from ACL reconstruction to determine if the fear of re-injury plays a significant role in returning to the patient’s former level of activity.

Results of this study found that 53% of the patients did return to their physical level of activity; however, the rate of returning to contact sports was lower. Of the group who did not return to previous level of activity, 24% stated that the fear of re-injury was the cause (Kvist, Ek, Sporrstedt, Good, 2005). The athletes returning to previous level of play did not have the same fear of re-injury due to movement as the non-returning group. Since only half of the patients were able to return to their previous level of activity, the authors stated that psychological considerations should be taken into account when rehabilitating an ACL injury.

In 1999, Shelley conducted a qualitative phenomenological study with four collegiate athletes to understand experiences and feelings that athletes deal with after injury. For this study, each athlete was asked to participate in multiple semi-structured interviews at set points through-out his/her rehabilitation. The three stages of rehabilitation were: no-participation, limited participation, and return to play phase. In
addition to the athlete’s interviews, the athletic trainers working with each athlete and the athlete’s position coach were interviewed in order to triangulate the data.

Shelley (1999) found that in each phase of rehabilitation, the athletes experienced a fear of re-injury or the fear of suffering another injury in the future. The athletes also gained confidence as they progressed through the phases. Feelings of isolation, abandonment, being misunderstood, ignored, and not being supported were experienced during the no-participation and limited participation phases. Athletes also exhibited concern over how their coach was viewing them and the injury. As the athletes progressed into the return to play phase, doubts were expressed as to whether the injury was completely healed. Shelley stated that a follow-up study should be conducted to validate the data already found. Suggestions for a follow-up study included more athletes, a greater mix of gender and more interviews throughout the rehabilitation to increase generalizeability (Shelley, 1999).

Podlog and Eklund (2005) also looked at return to sport after injury to determine the motivation levels of athletes returning to sports after injury and their expected outcomes. The researchers found that athletes experience fear of re-injury and fear that they will not get back to their pre-injury level. One of the best ways for athletes to alleviate their fear of re-injury is to put the injured body part through sport testing. Some athletes were able to return and compete successfully after testing their injured body part. Athletic trainers can play a huge part in alleviating the fear of re-injury by building confidence during rehabilitation.
Certified Athletic Trainers and Injuries

Certified athletic trainers, athletic training students and the injured athlete should work closely together to set timelines and goals during the rehabilitation process. The relationship between the athlete and certified athletic trainer should be open and sincere. Good communication is essential in optimizing the relationship (Kolt, 2000). The athlete and his/her certified athletic trainer work together very closely as the certified athletic trainer is at practice everyday (Kolt, 2000).

A study was conducted to determine if athletes prefer to work with certified athletic trainers of the same sex or if there is no preference. The researchers were surprised to find that male athletes did not show a preference for a certified athletic trainer of the same sex for psychological conditions. Male athletes reported they were equally comfortable with certified athletic trainers for either sex (Drummond, et al, 2007). It had been stated in previous research that male athletes preferred a member of the opposite sex when discussing psychological conditions because they were afraid to appear weak before a member of the same sex (Drummond, et al, 2007).

In 2002, Granito conducted a qualitative study of intercollegiate athletes and athletic training students. By interviewing both the athletes and athletic training students, he compiled different perspectives on the injury response. Four different focus groups were used consisting of two groups of athletic training students and two groups of student athletes. Athletic training students were used in this study because they had a greater likelihood of making a personal connection with the athlete based on interaction every day through practice, travel, and competition. (Granito, 2002)
The athletes included in this study were from many different sports. Of the seven athletes in the study, four needed surgery to repair their injury. The focus groups consisted of open ended questions in order to gain more information (Granito, 2002). From the focus groups, seven categories emerged: personal factors, effects on relationships, sociological aspects, physical factors, daily hassles, feelings associated with injury, and rehabilitation (Granito, 2002). From the focus groups, indirect and direct experiences emerged with direct coming from the athlete and indirect coming from the athletic training student. The direct experiences consisted of the athlete’s personal insights of the injury. An example would be the daily hassle of having an injury hamper daily activities. The athlete is more likely to respond to questions regarding this rather than the athletic training students (Granito, 2002). The indirect experience consisted of the athletic training student’s perceptions of the athlete’s experience (Granito, 2002). The athletic training students were more likely to mention sociological aspects and personal factors affecting the athlete than the athletes themselves (Granito, 2002). With the different views, the author was able to gain a better understanding of the experience athletes undergo when sustaining an injury. During rehabilitation, the relationship between the certified athletic trainer and athlete can impede or enhance the process depending on the amount of trust and confidence the athlete has with the certified athletic trainer (Granito, 2002). One aspect of the relationship between the athlete and certified athletic trainer could be goal setting where the two individuals sit down to set realistic goals for the athlete to follow.
Social Support

Social support may come from many sources such as family, friend, coaches, teammates, and athletic trainers. Udry (2002) identified four types of social support important to athletes: esteem/emotional, informational, tangible, and motivational. Examples of esteem/emotional are showing acceptance, belonging, and expressions of concern to name a few. Informational support is providing advice or helpful information. Tangible support includes provision of concrete assistance such as transportation or financial assistance. The last component is motivational, which includes providing encouragement and assistance to overcome barriers.

Robbins and Rosenfeld (2002) studied the athlete’s perceptions of social support from athletic trainers and coaches. They found that coaches do not provide much support to the athletes; however, the athletes would appreciate more support from the coaches (Robbins & Rosenfeld, 2002). The athletic trainers provide the most social support during rehabilitation (Robbins & Rosenfeld, 2002). One way that an athletic trainer can provide support to the athlete is to set goals for the athlete to follow.

Goal Setting

The study by Evans and Hardy (2002) looked at implementing a goal setting intervention to determine if goal setting helps athletes adhere to their rehabilitation program. Three different types of goals were discussed in this study which includes: outcome, performance, and process. Evans and Hardy stated that outcome goals have strong motivational properties but may cause higher anxiety in athletes than the other two types of goals. In the essence of enhancing performance, the performance type goal is
more effective than outcome. Process goals are helpful in allowing the athlete to focus his/her attention on a specific task.

Evans and Hardy (2002) studied athletes who had undergone a surgical procedure. Thirty of the participants injured their anterior or posterior cruciate ligament, six had shoulder dislocations, and three had lower leg fractures. These athletes were involved in a sport, either recreational or competitive. This study found that goal setting does indeed help athletes adhere to their rehabilitation program and increase self-efficacy.

Imagery and Other Strategies for Rehabilitation

Imagery, progressive muscle relaxation, and coping are different strategies that the rehabilitation team may use to assist the athlete’s recovery. Morris, Spittle, Watt, (2005) state that imagery is not as widely used during rehabilitation due to a lack of knowledge the proper usage based on previous research. Morris, Spittle, and Watt (2005) categorized imagery into four groups. They are: healing, pain management, rehabilitation process, and performance imagery.

Healing imagery focuses on envisioning internal processes and anatomical healing. It is essential that the athlete have a clear mental image of the injury. This can be accomplished by the certified athletic trainer or other rehabilitation team member explaining the injury clearly for the injury (Morris, Spittle & Watt, 2005). During this stage, progressive muscle relaxation (PMR) is very helpful as well as other relaxation techniques in allowing the athlete to relax.

Pain management imagery has two techniques which are associative and dissociative (Morris, Spittle, & Watt, 2005). Associative pain management focuses on the pain and dissociative pain management is focused away from the pain. There are
three parts to pain management which include pain acknowledgement, dramatized coping, and pleasant imaging (Morris, Spittle, & Watt, 2005). Pain acknowledgement and dramatized coping are associative methods and pleasant imaging is a dissociative method. Pain management imagery could be used in the athletic training room to help athletes minimize the pain from an injury. This is beneficial because it give the athlete something else to focus on.

Rehabilitation process imaging can be used during all stages of rehabilitation and the main technique is coping. In this stage there are two types of coping which are mastery and coping imagery (Morris, Spittle, & Watt, 2005). Mastery imagery helps the athlete to demonstrate high self efficacy by having the athlete rehearse events with positive outcomes in his/her mind (Morris, Spittle, & Watt, 2005). Coping imagery uses positive self talk and again focuses on positive outcomes. Progressive muscle relaxation is also used with this technique. This technique is very helpful in building confidence and coping skills (Morris, Spittle, & Watt, 2005).

Performance imagery is used throughout rehabilitation for the athlete. This technique is used to have the athlete continue to have a performance oriented mindset. This process allows athletes to visualize his/her skills mentally when he/she is not physically able to do so (Morris, Spittle, & Watt, 2005). This technique also focuses on positive outcomes.

Summary

Athletes can experience a myriad of emotions after an injury. The psychological aspect of an injury can play a significant role in whether or not the athlete makes a full recovery. The rehabilitation takes longer when surgery has been performed because the
tissues must heal. Psychologically this can be very hard for athletes to deal with. The athlete might worry whether or not his/her on the team will change and if he/she will play again (Granito, 2002). Certified athletic trainers can help diminish these feelings by supporting the athlete during the rehabilitation process especially as he/she returns to activity after surgery. The certified athletic trainer needs to validate what the athlete is feeling is normal.
CHAPTER THREE

Methodology

Introduction

The purpose of this paper was to identify the psychological lived experiences of collegiate athletes and the lived experiences of the athletic trainers working with those particular athletes. The lived experiences of the athletic trainer focused on working with the athlete in regards to the athlete’s psychological health and well-being. The focus of this paper was on the rehabilitation stage of the subjects post-surgery. This chapter addresses the recruitment of participants, design of the study, instruments, and the data collected.

Participants

The participants for this study included athletes who had suffered an injury requiring surgery and were in the return to activity of phase of his/her rehabilitation. The athlete’s respective certified athletic trainer was also interviewed regarding his/her experiences when working with this athlete after surgery. There are approximately 400 athletes at this university. Each year, there are approximately 600 injuries that occur ranging from minor to severe. Of those 600 injuries, approximately 20 result in surgery (D.T. Murphy, personal communication, February 7, 2008). This university has four full time certified athletic trainers and two certified graduate assistant athletic trainers. Criterion-based sampling was utilized in this study because the athletes had to have undergone surgery to repair his/her injury. The athletes had to be in the return to activity phase of rehabilitation and his/her athletic trainer had to have been willing to participate in the study. Two athletes and their respective certified athletic trainer were interviewed
in the study. The athletes were recruited with the assistance of his/her certified athletic trainer. The researcher approached the certified athletic trainer to inquire about athletes who meet the criteria. The certified athletic trainer then approached his/her athletes who met the inclusion criteria. If the athlete was willing to participate in the study, he/she contacted the researcher. If the certified athletic trainer was not willing to participate, another athletic trainer was approached if he/she had an athlete that met the criteria.

Research Design

The research design used the qualitative paradigm with a phenomenological approach to determine the athlete and the certified athletic trainer’s lived experience in regards to injury rehabilitation after surgery (Johnson & Christensen, 2004). An extensive literature review was completed to determine any gaps in the existing research regarding the psychological aspects of athletes after surgery and how athletic trainers can assist the athlete’s psychological portion of rehabilitation.

Procedures

Prior to data collection, institutional review board (IRB) approval was obtained to ensure ethical data collection. An informed consent and confidentiality form was signed by the participants prior to the interview. Pseudonyms were assigned to the participants in order to protect his/her identity. The records are kept by a faculty advisor for five years and then will be destroyed. After IRB approval was received, the researcher started interviewing the participants during the month of April and analysis followed in May. Results and discussion were be presented in July.

Semi-structured face to face interviews were conducted with the participants. The initial interview was 45 minutes to an hour long. During the interview, the researcher
listened for significant statements by the participants. Each interview was audio-recorded with the consent of the participant and was identified by each participant’s pseudonym. After each interview, the researcher transcribed each interview into a Word document. After transcription, the researcher made a list of significant statements and inductively analyzed the data to establish predominant themes. The researcher recognized significant statements by the observing the participant’s responses and body language to each question. If a statement is significant, the participant may show strong emotions. Significant statements will also include responses that are appearing more than once (Johnson & Christensen, 2004). Member checking was conducted to verify the findings with the participant in a follow-up interview which lasted approximately 15-30 minutes. The follow-up interviews had a dual purpose of conducting member checking and asking any additional questions if answers from the first interview were unclear. All interviews were conducted in the athletic training lab on the university campus.

Instrument

During the interviews, a few demographic questions were asked such as age, sport, injury, and timeline of return to sport. After asking the demographic questions, the researcher asked the grand tour questions and had probes ready if the participant was unclear how to respond or if the researcher needed more information (Spradley, 1979) (Appendix B). The grand tour questions consisted of topics such as how surgery psychologically affected the athlete, and what the lived experiences of the participants were during this time period.

Prior to the interviews, the researcher showed the list of interview questions to athletes not involved in the study who had sustained a surgical injury and also to certified
athletic trainers to make sure the questions were clear and straightforward for the athlete. The athletes and certified athletic trainers helped the researcher determine if the questions were easy to follow. The athletes and certified athletic trainers were also able to tell the researcher if additional questions should be asked or if some questions needed to be deleted. The certified athletic trainers gave a professional view of the questions.

Data Analysis

After the interviews were conducted, the data were transcribed verbatim and entered into a Word document. The documents were transferred into NVIVO 8 and coded into main themes and concepts. The origination of the categories came from the participants as the data from the interviews were analyzed. Categories were developed iterative, meaning at various times throughout the research process. The naming of the categories was developed in vivo by the participants (Constas, 1992). A constant comparative analysis was done by taking data from the collection and comparing to the developing categories (Creswell, 1998).
CHAPTER FOUR

Results

The purpose of this paper was to explore the lived experiences of athletes returning to activity after surgery and the experiences of the athletic trainer. Four interviews were conducted and the data was collected and transcribed verbatim within days of the interviews. The interviews were coded inductively using NVIVO 8. Codes and themes were developed and then grouped together. Themes were organized together based on similarity and within each theme are subcategories based on the participant’s responses in the interview. Once the initial interviews were transcribed, the researcher conducted follow up interviews to allow participants to add or clarify any information from the initial interviews. Follow up interviews also allowed the researcher to probe more deeply into issues. The participants were two athletes known as Ron and Judy and two athletic trainers known as Kelly and Tom.

The interviews brought out themes such as social support, frustration, positive aspects of injury, the athlete being technically ready to return, and strategies used by the athletes and athletic trainers in the return to activity. Some of these themes were consistent with the current literature while some new themes were developed.

Emotionally Related Reactions

The athlete’s cognitive and emotional responses to the injury and surgery emerged in the interviews. Some of these reactions included nervousness and uncertainty. The female athlete was very nervous before the surgery, mainly about the surgery itself. She also didn’t know what to expect in regards to the surgery.

Judy: I was just really…nervous cause I didn’t, I’ve never had any sort of surgery before so I was really nervous…cause I didn’t know what to expect I guess.
The male athlete said that he didn’t know what to expect about having a serious injury because he had never had a serious injury before.

Ron: I wasn’t sure what to expect because I mean I’d never been hurt more than, you know my worst injury before was, shoot, a broken hand but that’s I mean whatever and then maybe a pulled hamstring.

Both athletes were unsure of what to expect from the surgery and the rehabilitation. Each athlete had seen other athletes go through similar processes but was still uncertain as to what exactly would happen to them. This uncertainty led to different cognitive responses discussed below.

Cognitive and emotional responses discussed in the interviews included denial that the injury was significant, frustration, nervousness, anger, and worry. Frustration throughout the entire process was a key theme through many of the interviews. Three of four participants made a reference to frustration at some point in the interview process.

Judy: I get so frustrated like…when we sprint and stuff because it just gets really achy, my knee does and so even now I still experience a lot of frustration sometimes. That would be my biggest thing. It’s like the most frustrating thing I could ever…imagine and I think it still is. And I think it will probably always be pretty frustrating in certain aspects….

Ron: …that was a little frustrating definitely like they told me…nine months then you should be fine, so I expected by the end of the nine months for my (injury) to be perfectly healed, no problems, nothing and then it started getting to the nine months…and I’m still…not doing everything I want to be doing.

One athletic trainer also referenced frustration in the interview in regards to the rehabilitation process.

Kelly: And then she’s had a couple of other minor setbacks with some patellar subluxation problems…and gets very frustrated when she can’t play but complains about pain when she does play.
Frustration was a reaction mentioned more frequently than any other reaction. Judy used frustration the most in her interview. The whole process of going through the injury and rehabilitation was very frustrating for her.

Another theme that developed from one athletic trainer is the maturity level of the athlete and how that affects how they react to the injury and stressors of rehabilitation.

Kelly: I’ve tried to explain to her how important it is to be careful…and not rush back and even though she wasn’t being rushed, to make sure that…she was paying attention to what her body was telling her and…trying to be a little bit more emotionally mature about things. She doesn’t really like to hear that but that was to me seemed like her biggest problem…was drama one direction or the other and trying to keep her more even keel.

Kelly: Again she’s a very emotional, very kind of immature emotionally…..if she’s having a bad day everybody around her is gonna have a bad day….

There did seem to be a pattern of emotional reactions. The athletes experienced similar reactions but not always at the same time. At the beginning, the athletes were both unsure of what to expect. After that, each athlete experienced frustration at some point in his/her rehabilitation. The athletes also had a hard time of finding out that they had to sit out a year and watch from the sidelines. As the athlete returned to the playing field, there was the initial worry and nervousness in regards to participating in his/her sport for the first time and whether the repaired part would hold.

Rehabilitation

The rehabilitation process of the athletes was also prevalent in the interviews. Both athletes mentioned rehabilitation a lot during the interviews whether it was in regards to the rehabilitation exercises or just the process itself. The athlete’s views on rehabilitation were that it was long, boring, annoying, and repetitive.

Ron: It was good to see progress in that sense and just getting my range of motion back but at the same time it was going really slow and it just kind of same stuff
but different day every day and…it was good though. I mean, it was just kind boring, it wasn’t (pause) it was just boring.

Even though the athletes said that the rehabilitation was long and boring, the athletes did mention that it progressed faster than they originally thought.

Judy: And then sometimes like going through it, like I’d be like ok this isn’t that bad…during surgery, or after surgery, during rehab but then there were times when I was like I don’t even want to do this anymore, its terrible, its not even worth…when I was…right in the middle of it, it just felt like I had too far to go to get to be 100% again. But now that I am 100%, I look back and…I think that it wasn’t that bad and that it went a lot quicker than I thought it was gonna go. But then I remember days when I was just done, like I just didn’t want to go to rehab, I didn’t want to do anything. Because I was so frustrated with it…but now looking back on it I realize that yeah I had those bad days but it wasn’t really that bad and it really did go a lot quicker than I thought it was going to.

Ron: Rehab really…progressed a lot through the first two months…I think…after I (want to) say it was two to three months that I was supposed to have most of my range of motion back...

Ron: Let’s see, probably three months after the fact, after the surgery….I was able to golf which was fine, I couldn’t…hit the long ball anymore but…I was able to do some stuff and I don’t know…it’s been a progress, I’m still in the progress of doing more and more stuff.

Return to Activity

Another common theme throughout the interviews involving rehabilitation was the actual return to activity. There were some concerns regarding return to activity from both athletes and one athletic trainer in regards to being able to perform their sport with the right technique. The athletes had been doing physical therapy for months and once they were ready to return, there was worry and nervousness regarding using the proper techniques. The athletes were focusing on getting stronger and being able to return and they overlooked the techniques used to participate in their sport.

Ron: I was just as much worried about…there is a certain coordination that goes into (participating) and just so much timing that goes into everything that I don’t know, that definitely got over looked by me until that first practice…and I
definitely felt a little awkward at times but just footwork that goes along with it but…that was just as much of a worry actually as my (injury)…..

Ron: well its, its something that I’d done my whole life, that I’ve been doing since I was in grade school so it didn’t take too long to get it back. I’m honestly still working on it, I never got totally comfortable through the four weeks of spring ball but its um its, definitely came back somewhat quick but its still not all the way back. I don’t feel quite comfortable yet just with the timing of everything, the timing of everything that goes into a single play of (sport)….

Tom: There’s a period of time there where it’s new again or you have to relearn different aspects of things because being away from the game or being away from the activity for a period of time creates…a problem or a mental block or whatever. And so sometimes there’s that as well.

Judy: I still feel kinda behind because after I got hurt, that was the longest I’d ever not played (sport) before and so now I feel like I’m kinda relearning some stuff, some stuff came back quicker than I thought it would but…other things were still kinda hard and…sometimes I feel totally normal and sometimes I feel slow.

The data also shows that there were concerns from the coaches in the athlete’s return. The coach and athletic trainer observed the athlete during activity, so they could see if the athlete was favoring the injured body part or fatiguing. One athlete mentioned in the interview that he knew that the coach and athletic trainer were watching him and then would pull him out of practice for a few repetitions to rest him.

Ron: I would say that both (Tom*) and (Jack*), my coach, noticed it. ….they would see me. I didn’t do it to get attention, I was just doing it cause I felt like I needed to warm my arm up but I(‘d)….be pushing off on someone or doing arm circles trying to loosen my (injury) up and they’d say…take a play off and I would but after especially after a few practices and it was really hurting, (Tom*) knew, I’d been in the training room the previous couple days and he said just you know take a couple plays off its not going to hurt anyone so I did.

There was also frustration on one athlete’s part because the coach was worried about her returning to activity and therefore was limiting her in practice even though the athlete had been cleared by doctors and athletic trainers. This was mentioned by both the athlete and respective athletic trainer.
Judy: And now I think, I think…they’re still kind of nervous like in practice its like they’re always looking at me like I’m going to get hurt again.

Kelly: And the coach is a little worried about having her out there so doesn’t have her doing a lot so that makes her mad.

**Social Support**

Social support was very helpful to the athletes in the process of returning to activity after surgery. Social support for the two athletes came in the form of athletic trainers, coaches, parents, and teammates. Both athletes mentioned that just having the athletic trainers there as a source of support was helpful in the return to activity. The athletes knew that the athletic trainer was there for them and that if there was a problem, the athlete could always go to them for assistance.

Judy: I think when I very first got hurt it was really important to have someone there that knew what had happened and knew…not only what happened to my knee but that I was really upset about it and stuff and…its just been nice to have someone like Kelly (who) knows….like from day one what happened and where I’m at now. It’s nice to have somebody….that I can like go talk to because they know the entire history. So I would say that that’s helped a lot.

Along with the positive social support came negative relationships. One athletic trainer and one athlete mentioned some negative aspects as a result of being injured. A negative relationship consists of negative attitudes of other people and how people treated the athlete when injured.

Kelly: And then she kinda got hooked up with some people that had some bad attitudes during the season which hurt her…..she was kinda clicked off with some bad groups that were not getting what they wanted out of it, and obviously she wasn’t getting what she wanted out of it so it was kind of a frustrating year…

Ron: I definitely took a lot of crap from them….I know they were joking, I don’t know at the same time its kinda…gets old when people are constantly telling me to quit milking my injury or…calling me a pussy and stuff like that even though I can’t help it…..
Athletic trainers can provide social support to athletes by using different strategies in the athlete’s return to activity such as goal setting, visualization, and positive encouragement. These strategies are a way that athletic trainers can provide more social support his/her athletes. One athletic trainer used positive encouragement as a strategy or technique in her athlete’s recovery. The athletic trainer felt that this was more useful to this athlete than other strategies. This athletic trainer believed that telling the athlete what they can do and then having them do it is helpful and allows the athlete to gain confidence.

Kelly: I do a lot more…positive encouragement type stuff and then in the gym, doing more of the exercises that are within their realm of where they are in their rehab process and showing them that what they can do and how that’s going build to the next thing.

Her athlete did use goal setting on her own. This athlete set goals for herself throughout the rehabilitation process to give to something to strive for and achieve.

Judy: The whole entire process was one goal after the other…the main goals were obviously just the things that I had to be able to do before I could play but in order to get to those goals I set smaller goals like…I wanted to be at this point by this date and…so that really gave me something to work towards because when you are looking like five months ahead its hard to….stay motivated to work hard cause it seems like it’ll never happen. So I think that…setting goals were a really huge part of it because then when I would reach a goal even if it was little it would give me like new hope and make me excited to go back to rehab and cause I knew that I could progress and that I would eventually get to where I needed to be.

The other athletic trainer didn’t use any strategies with his athlete. His athlete would use visualization when standing on the sidelines watching a play develop at practice. If something was done incorrectly, he would replay it in his mind so that he would do it correctly when he was on the field. This particular athlete didn’t use any
techniques in his rehabilitation, only in regard to performing plays and executing on the field was visualization used.

Ron: My visualization occurs randomly like throughout the day but especially during practice like I said after seeing a play happen or like especially if I see someone else use bad technique, that’ll remind me to…just…simple things…..because one bad technique and two that’s how (I got injured).….definitely during practice and just randomly throughout the day. I don’t set aside time to visualize or anything like that.

The Positive Aspects of Injury

The timing of an injury in regards to the athlete’s year in school and time of the year that it happened was also brought up in Tom and Ron’s interviews. Ron mentioned that there were some positives that came out of his injury in regards to timing.

Ron: Luckily for m(e), that I had a red shirt year but I mean if I hadn’t had a red shirt year…that’d been a lot worse then it actually turned out to be because I would’ve undoubtedly pushed it and who knows.

Ron: There was too much good that was coming out of actually hurting my arm, which is weird, because this probably has nothing to do with that but there was a lot of good stuff coming out of it…I’ll say….Like getting an extra year of school because I need five years, all five years to complete my degree…it’ll work out that you know I was almost splitting time with (another player). He was still getting more plays than me but…it would’ve been the same situation but instead of having….my last years being one year splitting with (another player) and one year starting, I’m kind of banking on, if I don’t get hurt right now, I’ll be starting for two years instead and, those were pretty much the only positives but those were big enough positives that it was a good thing I think eventually after, after all things are considered, I think it was good actually so…

Tom: The other component for him that made some of that go quicker was the fact that he knew he was or could or would in all likelihood if he didn’t play, he had the possibility of getting a red shirt year so timing of those kinds of things was um advantageous to him because that opportunity was available to him. So once that kind of, those options were given to him and he said you know what I’ll, I’ll do that um he began to get comfortable with the fact there, like have a pretty good understanding of the fact that he was going need to get it fixed and then he wouldn’t have to focus on um being ready play (sport) again in the spring…or the next year from when he got hurt.

Athletic Trainer’s Role in Psychological Rehabilitation
The athletic trainers were asked in the follow up interviews if they felt they had a role in addressing the psychological or mental aspects of an athlete’s rehabilitation. It was the consensus that the athletic trainers should address the issues based upon the situation.

Tom: Every athlete (is) go(ing to) have a different scenario or different case, different history and different background in dealing with injury so because of that I think that then as an athletic trainer, what you have to do or what I would have to do…is go(ing to) be different based on what goes on there so in general would I say there is a role mentally? Yeah. I think that there is. Again based on a lot of factors, anything from time of year they’re hurt to year in school they are when they are hurt to severity of injury, those kinds of things and that all plays in effect.

Kelly: Just mainly doing it from an education standpoint initially…when somebody’s injured like this particular athlete…she had a lot of people, a lot of friends that had had (the same injury), so she knew what was coming and what to expect and I think that helped her a little bit but what we talked about before, the longevity of the rehab, when you see somebody else going through it is different than when you go through it yourself. Its…a whole different aspect of time and them understanding the timeline and what happens at each point…when they get released at the 4 month mark or the 5 month mark and…what they can expect is important as much as…imagery and all that. I think they need to know what to expect and understanding the timeline so they don’t get as frustrated. I think that’s a big part of their mental status.

Summary

This research was conducted to determine the lived experiences of athletes who are returning to activity post surgery and the lived experiences of the athletic trainers working with those athletes. This research brought cognitive and emotional responses of the athletes such as frustration, denial, anger, worry, and uncertainty. The athletes were also nervous about the actual return to activity and that it was an adjustment because he/she had to relearn the proper techniques of the sport in order to participate. Social support was provided to the athletes mainly from his/her athletic trainer followed by the coaches, teammates, and parents. There were also some positives as to the timing of the
injury for one athlete because he needed an extra year for school and he won’t be splitting
time this coming season. It was also stated that athletic trainers should play a role in the
psychological aspect of rehabilitation for athletes. This research will help athletic
trainers address those issues with the athletes.
CHAPTER FIVE

Discussion

The purpose of this paper was to investigate the lived experiences of an athlete and his/her respective athletic trainer post surgery. It is unclear how prepared athletic trainers are to address psychological issues. The athletic trainers were included in the study to determine if they should play a role in the psychological aspect. The athletes provided the information on whether or not athletic trainers did play a role in his/her return to activity after surgery.

Emotionally Related Reactions

Many of the emotional reactions mimicked those in the literature such as denial, frustration, anger, and fear of re-injury. Bauman (2005) presented the emotional responses to injury as: “denial, anxiety, depression, anger, resentment, frustration, hopelessness, loneliness, worthlessness, impatience and general overall negativity.”

A new theme from this study was the fear of injuring the opposite body part. This athlete had heard it was somehow genetic and therefore the opposite limb could be injured in the future. The athletes also mentioned trust in the injured part once it had been put through the tests and ordeals of returning to activity. Before going through the sport specific testing, the athletes were nervous about returning to the game. Each felt a little more confident after having the injured part tested (Podlog & Eklund, 2005).

One athletic trainer mentioned how this particular athlete was emotionally immature and therefore did not handle the injury and rehabilitation very well at time. This supports the Kubler-Ross and Chickering and Reisser model presented earlier. The Kubler-Ross model has four stages but is not enough to help athletes deal with an injury
(Harris, 2003). Harris (2003) states that if athletes are not mature enough to accept their injury they will not heal. The Chickering and Reisser model or theory was developed to help athletic trainers to determine the maturity levels of athletes and helps them determine how the athlete will react to the injury. Kelly, the athletic trainer, mentioned her athlete’s emotional immaturity and how it was impeding her rehabilitation.

Rehabilitation

The athletes were very much in agreement about the process of rehabilitation. Each thought the process long and boring. Both athletes were annoyed with how repetitive the exercises were. Even though the athletes said that about the process, they also said that the rehab went a lot faster than normal. Athletic trainers need to be aware that athletes may get bored during rehabilitation and therefore should work with the doctor and physical therapist to vary the exercises to keep the athlete interested. Bauman (2005) found that athletes are much more compliant with rehabilitation when genuinely interested. Athletic trainers should work at keeping the exercises interesting for the athlete in order to keep the athlete interested in rehabilitation. In the literature, the rehabilitation was mentioned along with the psychological aspects of re-injury and the emotional reactions to injury. Although the athletes were dreading having to go through the process of rehabilitation, it went much faster for them than they originally thought.

Return to Activity

The return to activity section of the results identified a gap in the review of literature. Both athletes mentioned how nervous they were to return to the playing field and they each had to relearn the proper techniques of their sports. Ron was worried about doing the skills needed in his sport. He was also worried about getting the timing and
coordination down when tackling and the proper footwork. Even though Ron had been playing this sport since he was a kid, he was not totally comfortable even after four weeks of spring ball. His athletic trainer, Tom, mentioned this as well. Tom says that being away from the game for a while can create this problem and everything has to be relearned.

Judy felt the same way about returning to her sport. She had never been out of her sport for that long before and when she returned, she felt very behind everyone else. She had to relearn some techniques while others came back much sooner. At times she still feels like she was slow and not up to speed.

This needs to be addressed by athletic trainers before the athlete re-enters the playing field. The focus of the rehabilitation is on the athlete getting stronger and having full range of motion but there is also a need to focus on sport specific activities (Podlog & Eklund, 2005). These activities need to include more than the normal footwork that is done during rehabilitation. Activities should include putting the athlete through any kind of game activity without contact that the athlete could encounter. This needs to be done until the athlete can enter into practice with his/her teammates with minimal apprehension (Podlog & Eklund, 2005). Athletic trainers should already be conducting these activities but should take the time to make sure the athlete is comfortable with the progress. The athlete should feel comfortable with his/her technique when it is time to return to the field or floor. It is unrealistic for an athlete returning after an injury to not have any apprehension but the apprehension should be manageable. The coach and athletic trainer should both be involved with this so the athlete is technically ready to return to the playing field.
Social Support

Social support also came up in the interviews in regards to the athletic trainers, teammates, and coaches. This supports the literature that athletic trainers and teammates provide more social support than coaches and that the support is important to the athlete’s mental health (Robbins & Rosenfeld, 2002). A different kind of relationship was also mentioned in these interviews which was negative. Each athlete had a different kind of negative relationship. Judy had negative relationships with people who had negative attitudes. Ron had negative relationships with some coaches who would ridicule him and then tell him to quit milking his injury.

The Positive Aspects of Injury

An interesting theme that came from Ron was possible benefits of being injured. In the literature, Podlog and Eklund (2006) found that sustaining an injury increased the athlete’s perspective of the game or sport in his/her’s life. This was a considered a benefit of being injured. The athlete in this study viewed getting injured as having a positive impact on his education and playing career. Ron needs five years to graduate with his degree and also would have been splitting time with another player so it was advantageous in the aspect of now he will be the main man in that particular position.

Athletic Trainer’s Role in Psychological Rehabilitation

The athletic trainers in this study did feel that they as athletic trainers should play a role in the mental aspect of rehabilitation. However, not many techniques were used by these particular athletic trainers. Some of the techniques or strategies used were done by the athlete’s without any help or guidance from the athletic trainer. Further research
could look at athlete’s using strategies on their own and then with the help of an athletic trainer and if there would be a difference in the outcome.

**Conclusion**

The purpose of this paper was to explore the lived experiences of athletic trainers and athletes returning to activity post surgery. After conducting the research, it was found that athletic trainers should play a role in the athlete’s rehabilitation by providing social support to the athletes. Athletic trainers can provide social support by utilizing various strategies such as visualization, positive encouragement, and goal setting (Granito, 2002). The athletic trainers also need to be there to listen to the athlete’s concerns and do what they can to alleviate those concerns.

It was interesting to the researcher how the interviews of the athlete and his/her respective athletic trainer were similar. As the interviews were being conducted, the researcher noticed a pattern of how the related the two interviews were. The observations of the athletic trainer by the athlete matched the athlete’s experiences. A lot of the same words were used by the athlete and athletic trainer such as frustrated, nervous, and how rehabilitation was a hassle.

The gap this research filled is that athletes are not confident in their abilities to return to the playing field. The athletes that participated believed they had to relearn the proper techniques, timing, footwork, and coordination. These athletes were not quite comfortable with their technique and sometimes felt they were a step behind. The information these athletes provided helps athletic trainers to address these concerns with future athletes. This research provided the researcher with materials to present to
certified athletic trainers and athletic training students at continuing education seminars. A powerpoint presentation outline and brochure are also included with this paper.
The Lived Experiences of Athletes Returning to Activity after Surgery and Certified Athletic Trainers Working With Them

Goal

The goal of this presentation is for athletic trainers to increase his/her knowledge of strategies he/she can use with athletes as they return to activity after surgery.

Objectives

The objective of this presentation is to provide athletic trainers with information on how to facilitate the athlete’s return to activity after surgery.

Audience

The audience of this presentation will consist of certified athletic trainers and athletic training students who attend a continuing education seminar.

Materials

The materials of this presentation consist of a powerpoint presentation and a brochure for the audience to take home and keep for a reference. The powerpoint and brochure outline various strategies the athletic trainer may use to address psychological issues athletes may experience after surgery. The presentation briefly discusses psychological/mental issues that may occur. The main focus is on the athletic trainers’ role in the rehabilitation and how they can assist the athlete in the rehabilitation.
Power Point Presentation
The Lived Experiences of Athletes Returning to Activity after Surgery and the Certified Athletic Trainers Working With Them
By Sarah Cummings, ATC

Background
► Approximately 17 million athletes suffer a sport related injury each year in the U.S. (Heil, 1993)
► 29 million sport injuries occur in the UK each year (Gilbourne & Taylor, 1998)

Background
► Athletic trainers are usually first contact to an injured athlete (Kolt, 2000)
► ATC spends the most time with the athlete because of time spent before, during, and after practice

The Problem
► How can ATC’s address the issues that athletes may experience after injury or surgery?

Cognitive and Stage Models
► Injury Response Model (Udry, 1997)
► Wagman and Khelifa’s Cognitive Model
► Kubler-Ross Model
► Chickering and Reisser Model

Injury Response Model
Step 1: Injury
History
Severity
↓
Social Support
Step 2: Cognitive Appraisal
Perceived Severity
Perceived Controllability
↓
Injury Setback
Step 3: Emotional Response
Qualitative
Intensity
↓
Step 4: Coping Response
Changing Stressor
Changing response to stressor
Other
↓
Step 5: Behavior Response Adherence
Injury Response Model
► Step 1
  ▪ The Injury
► Step 2
  ▪ Imperative to understand how athlete appraised the injury (cognitive appraisal)

Injury Response Model
► Step 3
  ▪ Focus on athlete’s emotional response
  ▪ Cognitive appraisal influences these
► Step 4
  ▪ Coping response
  ▪ Determined by how athlete emotionally responded to injury

Injury Response Model
► Social Support
  ▪ Plays an role in injury stress and coping
► Re-injury
  ▪ May change cognitive appraisal

Wagman and Khelifa’s Cognitive Model

Personality → History of Stressors ← Coping Resources
Locus of control → Life events ← General coping behaviors
Sense of coherence → Daily hassles ← Social support systems
Competitive trait anxiety → Previous injuries ← Stress Management and Mental Skills
Achievement motivation → Self concept ← Medication

↓

Stress Response
Cognitive appraisal → Demands ← Physiological/attentional aspects
       ↓                             ↓
    Resources ← Narrowing of visual field
    Consequences ← Distractability

↓

Cognitive appraisals ↑

Injury → Behavioral responses ← Interventions
       ↓
       Emotional responses

Kubler-Ross
► Four Stages
  ▪ Denial
  ▪ Anger
  ▪ Depression
Acceptance
► Not substantial enough to help athletes

Chickering and Reisser Model
► Helps athletic trainer determine athlete’s level of maturity
► Seven Vectors
  ● Developing confidence
  ● Managing emotions
  ● Moving through autonomy toward interdependence
  ● Developing more mature relationships
  ● Establishing identity
  ● Developing purpose
  ● Developing integrity
  ► By knowing what vector the athlete is in, the athletic trainer can determine how the athlete is going to handle the injury

Psychological/Emotional Reactions
► Denial
► Anxiety
► Depression
► Anger
► Resentment
► Frustration
► Hopelessness
► Loneliness
► Worthlessness
► Impatience

Strategies
► Positive Encouragement
► Imagery/Visualization
► Progressive Muscle Relaxation
► Goal Setting
► Social Support

Positive Encouragement
► Tell athlete they will be playing again
► Acknowledge there may be setbacks
  ● Athlete can overcome them
► Give positive reinforcement when athlete reaches goal or does exercise correctly
► Explain how process works
  ● These exercises will help you do this later on etc

Imagery/Visualization
► Use imagery to take focus away from pain
► Use healing imagery
  ▪ Athlete see the injury healing
► Performance imagery
  ▪ Athlete visualizes him/herself on the playing field again
  ▪ Athlete does exercises and activity in mind only
► Can also use progressive muscle relaxation with these techniques

Progressive Muscle Relaxation
► Start at head
  ▪ Contract individual muscles, hold for 3-5 seconds, and then relax
  ▪ Finish at the feet
► Helps athlete to relax
► Relieve muscle tightness and pain
► Relieves stress
► Can be used with imagery/visualization

Goal Setting
► Work with the athlete to set goals
► Do throughout rehab
► Give praise when athlete reaches a goal
► Goals should be attainable
► Set major goals
  ▪ Set minor goals to help achieve the major goals

Social Support
► ATC is available to listen to athlete
► Provide assistance when needed
► Help athletes with goals
► Provide strategies for athlete to use

Athletic Trainer’s Role
► Psychological Aspect of Rehabilitation
  ▪ Athletic trainers should play a role
  ▪ Know each athlete individually
  ▪ Each case may be different
► Address accordingly to athlete’s mental health
  ▪ Help athlete understand what will happen in the rehab

Questions

References


References


Harris, L. (2003). Integrating and analyzing psychosocial and stage theories to challenge the development of the injured collegiate athlete. *Journal of Athletic Training, 38 (1)*, 75-82.


http://www.nata.org/about_AT/whatisat.htm

http://www.nataec.org/


Appendix A

National Athletic Trainer’s Association Athletic Training Educational Competencies for Psycho-social Intervention and Referral

In order to demonstrate knowledge of the practice of athletic training, to think critically about the practices involved in athletic training, including the ability to integrate knowledge, skill and behavior, and to assume professional responsibility, the entry level athletic trainer must possess the ability to recognize, intervene, and refer when appropriate patients exhibiting sociocultural, mental, emotional, and psychological behavioral problems/issues. The use of learning objectives and outcomes in psychosocial intervention and referral ensures that the student is able to:

**Cognitive Competencies**

1. Explain the psychosocial requirements (i.e. motivation and self-confidence) of various activities that relate to the readiness of the injured or ill individual to resume participation.
2. Explain the stress-response model and the psychological and emotional responses to trauma and forced inactivity.
3. Describe the motivational techniques that the athletic trainer must use during injury rehabilitation and reconditioning.
4. Describe the basic principles of mental preparation, relaxation, visualization, and desensitization techniques.
5. Describe the basic principles of general personality traits, associated trait anxiety, locus of control, and patient and social environment interactions.
6. Explain the importance of providing health care information to patients, parent/guardians, and others regarding the psychological and emotional well being of the patient.
7. Describe the roles and function of various community-based health care providers (to include, but not limited, to: psychologists, counselors, social workers, human resources personnel) and the accepted protocols that govern the referral of patients to these professionals.
8. Describe the theories and techniques of interpersonal and cross-cultural communication among athletic trainers, their patients, and others involved in the health care of the patient.
9. Explain the basic principles of counseling (discussion, active listening, and resolution) and the various strategies that certified athletic trainers may employ to avoid and resolve conflicts among superiors, peers, and subordinates.
10. Identify the symptoms and clinical signs of common eating disorders and the psychological and sociocultural factors associated with these disorders.
11. Identify and describe the sociological, biological and psychological influences toward substance abuse, addictive personality traits, the commonly abused substances, the signs and symptoms associated with the abuse of these
substances, and their impact on an individual’s health and physical performance.

12. Describe the basic signs and symptoms of mental disorders (psychoses), emotional disorders (neuroses, depression), or personal/social conflict (family problems, academic or emotional stress, personal assault or abuse, sexual assault, sexual harassment), the contemporary personal, school, and community health service agencies, such as community-based psychological and social support services that treat these conditions and the appropriate referral procedures for accessing these health service agencies.

13. Describe the acceptance and grieving processes that follow a catastrophic event and the need for a psychological intervention and referral plan for all parties affected by the event.

14. Explain the potential need for psychosocial intervention and referral when dealing with populations requiring special consideration (to include but not limited to those with exercise-induced asthma, diabetes, seizure disorders, drug allergies and interactions, unilateral organs, physical and/or mental disability).

15. Describe the psychosocial factors that affect persistent pain perception (i.e., emotional state, locus of control, psychodynamic issues, sociocultural factors, and personal values and beliefs) and identify multidisciplinary approaches, for managing patients with persistent pain.

Clinical Proficiency #1

Demonstrate the ability to conduct an intervention and make the appropriate referral of an individual with a suspected substance abuse or other mental health problem. Effective lines of communication should be established to elicit and convey information about the patient’s status. While maintaining patient confidentiality, all aspects of the intervention and referral should be documented using standardized recordkeeping methods.

Clinical Proficiency #2

Demonstrate the ability to select and integrate appropriate motivational techniques into a patient’s treatment or rehabilitation program. This includes, but is not limited to, verbal motivation, visualization, imagery, and/or desensitization. Effective lines of communication should be established to elicit and convey information about the techniques. While maintaining patient confidentiality, all aspects of the program should be documented using standardized record-keeping techniques.
Appendix B
Interview Questions

Grand Tour Questions

Athlete

- How has having surgery affected your psychological/mental well-being?
  - What has been your experience working with your athletic trainer during this time and how has he/she helped you mentally in your rehabilitation?

Certified Athletic Trainer

- What are the lived experiences of the certified athletic trainer working with a particular athlete post surgery in regards to the athlete’s psychological/mental health?
  - What has been your experience working with this particular athlete mentally post-surgery?

Demographic Questions

- What is your age?
- What is your sport?
- What was your injury?
- How far out from surgery are you?
- When do you expect to return?