The Perceived Impact of Social Support Provided by Athletic Trainers and Student Athletic Trainers to Injured Collegiate Athletes

by

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Submitted in partial fulfillment of the requirements for the degree of Master in Education at Carthage College

Kenosha, Wisconsin

2015
Abstract

The positive effects of social support received by injured college athletes are beneficial to their recovery. There are many social groups that participate in the support of injured athletes including the athletic training staff, parents, coaches, teammates, and friends. The injured athlete’s athletic trainers may play the most significant role by providing a portion of this psychosocial support.

A large amount of social support can enhance an injured athlete’s optimism, motivation, and recovery rate for their specific injury. Conversely, a lack of social support can diminish an injured athlete's recovery rate, increase stress and depression, and decrease motivation to return to their sport. In this study, the researcher investigated the validity of Barefield’s (1997) findings regarding how athletes respond to social support given by certified and student athletic trainers.

This study involved 32 male and 5 female injured athletes. They participated in football, lacrosse, soccer, volleyball, baseball, and cross-country at a Southeastern Wisconsin Division III College. A modified Social Support Survey created by Richman (1993) was administered to the 37 injured athletes to collect quantitative data.

Results were then analyzed for each injured athlete as well as for the total group of injured athletes. Results indicated that injured athletes received more social support from certified athletic trainers compared to student athletic trainers. Results also indicated that injured athletes expect the same amount of social support regardless of the different sport involved and injury length.

The results of this study will be of special interest to certified athletic trainers and student athletic trainers who deal with injured athletes. It is important that social groups are aware of their role in an injured athlete’s recovery process, especially certified athletic trainers. Certified athletic trainers are able to help these injured collegiate athletes with their recovery process by not just treating the specific injury, but treating the individual including psychosocial needs and mental well-being.
ACKNOWLEDGEMENTS

I would like to thank those who have supported and encouraged me throughout the course of this project. My sincere appreciation goes to:

Allen Klingenberg and Paul Zavada - Thank you both for your insight and support. They challenged me to write technically, and allowed me to grow as a researcher. This project would not have reached completion without your patience and dedication.

Jake Dinauer, ATC - Thank you for the hours you have spent assisting me with the collection of data. Thank you for molding me into who I am today as a person and as an athletic trainer. It is appreciated more than you know.

My parents, Joan and Art Niwinski - Thank you for instilling in me a dedication to character and putting forth hard work in all of my endeavors.

Arthur Preuss. - Thank you for all of your encouragement, patience, and support. You are the reason I chose this topic for my Master Thesis.
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Chapter 1

Introduction

Overview

An athletic trainer is a certified health care professional who practices in the field of sports medicine. Athletic training has been recognized by the American Medical Association (AMA) as an allied health care profession since 1990. To become an athletic trainer one must have a degree from an accredited college education program and then sit for and pass the Board of Certification (BOC) examination. The Board of Certification for athletic trainers is a national examination and must be passed to become certified. A key variable for success as an athletic trainer is an understanding of how to help athletes in any possible way. Not only do athletic trainers treat physical injuries, but they also need to help maintain an injured athlete’s mental well-being.

According to the National Athletic Trainers’ Association, “In the last 10 years, college sports have flourished, with athletes required to train and compete year-round rather than seasonally. At the same time, athletes are getting bigger, stronger and more physical – which leads to a greater risk of injury” (C. Klenk, 2006, p. 1). Due to the large number of sports in today’s society, athletic training has become a popular career choice for many people. In addition to the physical pain of an injury, an athlete may struggle psychosocially. Because psychosocial variables influence injury onset, duration, and recovery, many researchers have
concluded that “rehabilitation from sport injury involves not only physical, but psychological considerations” (Crossman, 1997, p. 22).

Scott Barefield (1997) was the first to investigate how collegiate athletes interpreted the degree, satisfaction, and expectation of social support between the student and certified athletic trainer. Barefield surveyed 85 intercollegiate athletes in a Division I school. Barefield wanted to collect quantitative data to identify the types of social support athletes need and the satisfaction that they expect to receive from the staff and student athletic trainers. He found that there was no significant difference in athletes’ satisfaction or in expectations between student and certified athletic trainers. According to Barefield, “Athletes expect (and need) to receive social support from student athletic trainers just as much as they do from certified staff. Student athletic trainers need to be educated about the importance of their role in helping to provide social support to injured athletes” (Barefield, 1997, p. 337).

Jingzhen Yang (2010), also investigated social support in the athletic training setting regarding athlete’s psychosocial needs. By comparing the social support patterns between different social groups, Yang J (2010) findings identified an urgent need to better define the psychosocial needs of injured athletes and also strongly suggest that athletic trainers have a critical role in meeting those needs. “Perceived social support from athletic trainers increased, both in the number of athletes who identified athletic trainers as a source of support and in the degree of satisfaction with the support received” (Yang J,
Injured athletes can play a key role in meeting these needs, but they must have the relevant knowledge, skills, and strategies in order to do so.

Sports injuries are critical and challenging problems for athletes. Athletes, at any age, are accustomed to an increase in stress in their activities of daily living. When an athlete becomes injured, the stress can become overwhelming. “Injuries may not only lead to decreased competitive performance but also impose long-term or permanent limitations upon athletes’ independent functioning” (Frank JH, 2013, p. 92). This researcher has worked with hundreds of injured athletes with various personalities and motivational levels. From a subjective point of view, the researcher has seen athletes trying any means necessary to come back from an injury. This researcher has also seen athletes that have no desire to return to their sport. “It is important to pay attention and be aware of the different factors that can affect an athlete’s motivation, especially when one is grieving a serious injury” (yang J, 2010, p. 373). Injured athlete’s mental rehabilitation is not something that can be taught, however, it is something that can be altered for more ignition and inspiration. In this study, the researcher explored the effects of social support provided injured collegiate athletes by student and certified athletic trainers.

**Problem Statement**

This study investigated the validity of Barefield’s (1997) findings regarding how athletes respond to social support given by certified and student athletic trainers. Barefield (1997) concluded that there were no significant differences
between certified and student athletic trainers in regards to how much social support they gave to injured athletes as well as how much was expected.

According to Jang J (2010), injured athletes have grown much more dependent on athletic trainers regarding their psychosocial needs in the past decade. Because of this, the seventeen year time gap of Barefield’s (1997) study, and the change to a completely different collegiate setting, the researcher wanted to explore the differences found currently with Barefield’s (1997) study results.

“Social support not only provides the resources needed to help individuals cope with the stress of injury but also can provide a healthy feeling of attachment to others” (William RA, 2010, p. 44). The National Cancer Institute’s Dictionary of Cancer Terms defines social support as “a network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help.” According to J.M Richman (1993), social support can be separated into eight different categories (see definition of terms).

**Guiding Questions for Research Hypotheses development**

This research project was conducted at a Southern Wisconsin Division III College. The purpose of this study was to assess what variables contribute to injured athletes perceived feeling of social support. The guiding questions that were the foundation of this study included:

1. Although several authors have investigated the composition of athletes' social support networks and the sources of support, few have
specifically addressed the athletic trainer's/student athletic trainer's role in providing social support. Thus, what is the athletic trainer's role?

2. How can a certified athletic trainer with guidance and counseling experience effect injured athletes during rehabilitation compared to certified athletic trainer's with no experience or athletic training students?

3. Which type of support is more beneficial to injured athletes?

4. Does the personality of the certified athletic trainer affect the satisfaction of the social support provided to the injured athlete?

5. Do the psychosocial needs of athletes change from high school to college?

6. Do rehabilitation difficulties observed in the athletic training room which involve coping well with injuries also include lack of motivation and noncompliance?

7. Is there one personality type that is better suited for athletic trainers providing social support?

These research questions and the hypotheses based upon them help colleges identify and resolve potential and existing problems hindering the "professional approach" to health care.

**Purpose of Study**

This research study was designed to uncover the current differences, if any, between Barefield's (1997) study findings within a Division III College Athletic Program and what variables contribute to injured athlete's social support.
By investigating the validity of Barefield’s (1997) study at this Division III College, one can better understand injured athletes health care, and the needs of their student athletes. We can also gain insight into whether there are any changes that need to be made in the collegiate athletic training curriculum. Thus, the purpose of this study was to identify how social support relates to an injured athletes perceived satisfaction and expectations from certified athletic trainers compared to the student athletic trainers.

**Null and Research Hypotheses**

The following seven sets of hypotheses were studied in the investigation:

1. Null: The injured athlete’s perceived listening support provided by the certified athletic trainer is equal to the amount of listening support from the student athletic trainers.

   Research: The injured athlete’s perceived listening support provided by the certified athletic trainer is not equal to the amount received from the student athletic trainers.

2. Null: The injured athlete’s perceived emotional support received from the certified athletic trainer is equal to the amount received from student athletic trainers.

   Research: The injured athlete’s perceived emotional support received from certified athletic trainer’s is not equal to the amount received from the student athletic trainers.
3. Null: The injured athlete’s perceived task appreciation provided by the certified athletic trainer is equal to the amount of task appreciation provided by the student athletic trainers.

   Research: The injured athlete’s perceived task appreciation provided by the certified athletic trainer is not equal to the amount of task appreciation provided by the student athletic trainers.

4. Null: The injured athlete’s perceived task challenge provided by the certified athletic trainer is equal to the amount provided by the student athletic trainers.

   Research: The injured athletes perceived task challenge provided by the certified athletic trainer is not equal to the amount provided by the student athletic trainers.

5. Null: The injured athlete’s expected amount of social support received from the certified athletic trainer is the same or less than that received from the student athletic trainers.

   Research: The injured athlete’s expected amount of social support received from the certified athletic trainer is more than that received from the student athletic trainers.

6. Null: There is no difference in an injured athletes satisfaction with the listening support received from the certified athletic trainers between football, soccer, and lacrosse athletes.
Research: There is a difference in injured athlete’s satisfaction of listening support received from the certified athletic trainers between football, soccer, and lacrosse athletes.

7. Null: There is no difference in injured athletes expected amount of social support received from the certified athletic trainer between mild, moderate, and severe athletic injuries.

Research: There is a difference in injured athletes expected amount of social support received from the certified athletic trainer between mild, moderate, and severe athletic injuries.

Definitions of Terms

Below is a list of important definitions of terms used throughout this research study.

Certified Athletic Trainer (ATC): A certified athletic trainer is a health care professional who help sports teams and collaborate with physicians. The services provided by athletic trainers comprise prevention, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions.

Athletic Training Student (ATS): A student athletic trainer that is under certified athletic trainers. Student athletic trainers are working and gaining valuable experience to help them finish their degree to become certified.
**Social Support**: a network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help.

**Rehabilitation**: Rehabilitation is the act of restoring something to its original state.

**Injury**: harm or damage that is done or sustained to the body.

**Health Care**: the maintenance and improvement of physical and mental health, especially through the provision of medical services.

**Social Support Survey (SSS)**: Social Support Survey created by J. M. Richaman (1993).

**Listening Support**: the perception that another is listening without giving advice or being judgmental;

**Emotional Support**: the perception that another is providing comfort and caring and indicating that she or he is on the support recipient's side;

**Emotional Challenge**: the perception that another is challenging the support recipient to evaluate his or her attitudes, values, and feelings;

**Reality Confirmation**: the perception that another, who is similar to the support recipient and who sees things the same way the support recipient does, is helping to confirm the support recipient's perspective of the world;
**Task Appreciation:** the perception that another is acknowledging the support recipient's efforts and is expressing appreciation for the work she or he does;

**Task Challenge:** the perception that another is challenging the support recipient's way of thinking about a task or an activity in order to stretch, motivate, and lead the support recipient to greater creativity, excitement, and involvement;

**Tangible Assistance:** the perception that another is providing the support recipient with financial assistance, products, and/or gifts;

**Personal Assistance:** the perception that another is providing services or help, such as running an errand or driving the support recipient somewhere; (Richman JM, Rosenfeld LB, Hardy CJ, 1993, p. 288-311)

**Chapter Summary**

The purpose of this research study was to analyze social support received by injured athletes during rehabilitation of these injured Division III athletes at a Private Liberal Arts Institution. Researching social support with injured athletes is important since it will give athletic trainers and other healthcare professionals serving them a better understanding of the variables involved, if any, that affect the relationship between injured athletes and either certified athletic trainers or student athletic trainers. The hypotheses in this study are based on previous research regarding social support and injured athlete culture. Previous research was collected during the last two decade without the inclusion of students or certified athletic trainers taking classes involving support, guidance, and counseling. Thus, the hypotheses including these variables are necessary for
analysis because they are prevalent in today’s healthcare system for injured student athletes.
Chapter 2

Literature Review

Risks involving Sports Participation

“Physical injury is an inherent risk in sports participation and, to a certain extent, must be considered an inevitable cost of training, conditioning, and competition” (N. Maffulli et al, 2011, p. 97). Sport injuries frequently have profound negative consequences on the physical health of sports participants. “They also have the potential to cause a great deal of psychological disturbance through increased anger, depression, anxiety, tension, fear, and decreased self-esteem”, (Reese L. et al, 2012, p. 70). This makes complete sense because “if the cognitive response to an injury is one in doubt and thoughts of a negative outcome occurs, a negative emotional outcome is likely to follow” (BW Brewer et al, 2003, p160). Sport injuries often result in an immediate imbalance and disruption to the lives of the injured athletes including loss of health and achievement of athletic potential.

Britton W. Brewer and Allen Cornelius (2003), studied the psychosocial effects of an athletic injury and believe that an athlete, with an injury, may experience a serious psychological loss much like the theory of Kublar Ross (1969). According to Kubler Ross (1969), an individual dealing with a loss of a loved one go through the 5 stages of grieving: Denial, Anger, Bargaining, Depression, and Acceptance. “There is however, support for emotional response to injury being somewhat similar to grief reactions reflects more accurately the
dynamic nature of the emotional experience of athletes who have been injured” (Brewer et al, 2003, p. 161). Brewer (2003) concluded that the 5 stages of grieving may improve through psychosocial support to help these injured athletes. Brewer et al’s (2003) theory of injured athletes going through Kublar Ross’s (1969) 5 stages of grief can also be supported by other researchers like M. Leddy et al (1994). Both Brewer et al and M. Leddy et al believe that Kublar Ross’s (1969) theory can be felt and experienced with injured athletes.

M. Leddy et al (1994), examined the psychological reactions to injury among 343 male collegiate athletes participating in 10 sports. All athletes were assessed using measures of depression, anxiety, and self-esteem during preseason physical examinations. Injured athletes along with matched control groups were later assessed within one week of experiencing an athletic injury and 2 months later. A $4 \times 3$ (Injury Status x Time of Testing) repeated measures multivariate analysis of variance (DM MANOVA) revealed that injured athletes exhibited greater depression and anxiety and lower self-esteem than the control group immediately following physical injury and at follow-up 2 months later. These findings supported Brewer (2003) and the general observation that physically injured athletes experience a period of emotional distress that in some cases may be severe enough to warrant clinical intervention.

Athletes, who suffer an injury and aren’t participating in their sport, deal with numerous psychological problems along with the physical limitation of the injury. It is extremely important for teammates, medical staff, coaches, family, and friends to recognize these issues and help wherever they can. Having strong
support from others is crucial because athletes may utilize this tool available to help recover from an injury more effectively.

According to the National Athletic Training Association, “An athletic trainer’s job responsibilities begin with injury prevention. This responsibility includes educating athletes and patients about what they should do to avoid putting themselves at risk for injuries. Athletic trainers also may advise people about the proper use of equipment and may apply protective devices, such as tape, bandages, and braces. When someone is injured during a sporting event, athletic trainers are often among the first healthcare providers to arrive at the scene” (B. Lockart, 2005, p. 38) Therefore, they must be able to recognize, evaluate, and assess injuries and provide immediate care when needed. Athletic trainers also are involved in treating and rehabilitating injuries. The basis of athletic training is essentially to have a core foundation of educational experience in many different aspects of healthcare. Athletic trainers, however, are not the masters of any of them.

Integrated Model of Psychological Response to Sport Injury and Rehabilitation

In order to explain the psychological stages of the rehabilitation process, stage models provide a succession of emotions, behaviors, attitudes and outcomes following a sport injury. See figure 1. below:
According to this model from Wiese-Bjornstall et al (2010), personal factors and situational factors influence cognitive appraisal of individuals. The cognitive appraisal determines the emotional response, for example, fear of reinjury, anger, and depression. Finally, “these emotions affect the athlete’s behavior, such as the adherence to the program” (Wiese-Bjornstall et al, 1998, p. 52). In fact, individual characteristics seem to strongly affect the psychological phases of the rehabilitation. For example, “athletes have different reactions if they are at the first or at the second injury, or they can be more or less motivated in the program based on the social support they receive” (Brewer, 2003, p. 161).
This model is important to the current research study because there are emotional, behavioral, personal, and situational factors that alter how athletes respond to an injury. Even if an athlete has a very similar injury to a different individual, their psychosocial needs could be completely different based upon the factors listed above.

For example, a swimmer, who is a self-proclaimed perfectionist, incurs a fourth shoulder injury of her collegiate career. Her perfectionist tendencies cause her to set extremely high standards for herself and, therefore, a thought related to the injury could include, “If I’m not 100% in a week, I will never be competitive again.” As a result of this thought, she feels frustrated and reacts with a sense of urgency. This emotional response causes her to approach rehabilitation with a high level of intensity (behavioral response) and do everything that her trainers asks her to do as well as additional activities outside of the training room that she believes with help her recovery. After a week of this behavior, she has not noticed an improvement in her shoulder pain and thinks, “this isn’t getting better, and I’ll never be a good swimmer again.” As a result of this thought, she gets depressed and begins to skip rehabilitation sessions. This process of interactions between cognitive appraisals, emotional responses, and behavioral responses continues over time and, as the example highlights, impacts both physical and psychological recovery outcomes. This example provides an illustration of how an athlete portrays an injury and how they can act with or without social support. It is important for athletic trainers to recognize non-compliance and emerging depression to combat this type of emotional response.
**Benefits of Social Support**

Research regarding the psychosocial needs of injured athletes has become a very popular topic in the last decade due to the high number of research studies being done. “A growing body of research has identified social support as an important factor in facilitating recovery from physical illness and injury” (Yang J, 2010, p. 373). One of the first researchers who explored the psychosocial needs of athletes when they are injured is Theresa Bianco (2001), who wrote *Social support and recovery from sport injury: elite skiers share their experiences*. T Bianco (2001) researched 10 elite downhill skiers who had recovered from serious sport injuries. The skiers were interviewed about the sources of stress associated with injury and the role of social support in recovery from sport injury. “Content analyses of the social support data revealed that the skiers needed various types of emotional, informational, and tangible support from the occurrence of injury through the return to full activity” (T. Bianco, 2001, p. 382). Members of the treatment team, the ski team, and the skiers’ home support networks provided social support throughout these phases. Bianco’s (2001) qualitative study concluded that the skiers were satisfied with the support received, indicating that it reduced distress and kept them motivated throughout recovery.
Not only does social support provide motivation and reduced stress throughout recovery, but the Mayo Clinic (Emberson et al, 2010, p. 54) also lists three other benefits of social support regardless of injury and health:

1. **Sense of belonging.** Spending time with people helps ward off loneliness. Whether it’s other new parents, dog lovers, fishing buddies or sibling, just knowing you’re not alone can go a long way toward coping with stress.

2. **Increased sense of self-worth.** Having people who call you a friend reinforces the idea that you’re a good person to be around.

3. **Feeling of security.** Your social network gives you access to information, advice, guidance and other types of assistance should you need them. It’s comforting to know that you have people you can turn to in a time of need.

These benefits listed by the Mayo Clinic are very beneficial for an athlete suffering from an injury and any person in general.

**Factors that contribute to Social Support**

A variety of names and definitions have been used to identify social support, an idea that has been prevalent in research for quite some time. Richman J. M, Rosenfeld LB, and Hardy CJ (1993) developed their own definition of social support and split it in 8 different categories:

1. Listening Support:
2. Emotional Support:
3. Emotional Challenge:
4. Reality Confirmation:
5. Task Appreciation:
6. Task Challenge:
7. Tangible Assistance:
8. Personal Assistance:  (see definition of terms for a larger definition)

Relating these definitions with athletic training and social support, Richman J. M (1993) also did a study pertaining to these eight different categories of social support.

Social support has been defined from various sources as:

1. The perception and actuality that one is cared for, has assistance available from other people, and that one is part of a supportive social network (Dictionary.com).

2. Is usually defined as the existence of people on whom we can rely, people who let us know that they care about, value, and love us (Dictionary.com).

3. A network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help (American Cancer Association).

**Social Support Data Collection Options**

Two surveys were reviewed and considered for this research study. The surveys reviewed were the Social Support Survey and the HOPE survey. The researcher preferred the use of Richman J. M (1993) SSS due to his elaborate interpretations of social support, the validity strengthening the survey, the history of other researchers usage of the SSS, and it works well with the current researcher’s study. This researcher received permission from Richman J. M
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Specifically, the instrument collects five pieces of information for each of the eight forms of social support: (a) the initials and relationship for each person who provides the support (which gives two pieces of information, the number of support providers and the composition of the respondent’s social support network); (b) satisfaction with the support received (higher numbers indicate greater satisfaction); (c) how difficult it would be to obtain more of the support (higher numbers indicate greater ease); and (d) the perceived importance of the support for the respondent’s well-being (higher numbers indicate greater perceived importance). The SSS takes approximately five to ten minutes to complete.

Content validity provides support for all eight forms of social support-listening support, emotional support, emotional challenge support, reality confirmation support, task appreciation support, task challenge support, tangible assistance support, and personal assistance support-and the four questions posed for each. “Structural validity, based on inspection of the 12 correlation matrices, also supports the inclusion of all eight forms of support and the four questions for each on the SSS” (Richman JM, 1993, p. 298). The eight forms of support appear well distinguished except with regard to the number of support providers indicated, and the four questions posed with each support form appear
to measure distinct aspects of social support. “By including the eight social support forms with questions assessing the number and characteristics of the providers, satisfaction, availability, and perceived importance of each type, the content of the SSS is more inclusive than other measures of social support” (Richman JM, 1993, p. 298).

“Validity of the SSS was assessed by comparing responses to the SSS with responses to Norbeck et al.’s (1981) Norbeck Social Support Questionnaire (NSSQ) and Sarason, Sarason, Shearin, and Pierce’s (1987) Social Support Questionnaire-6 (SSQ-6). Based on reports by Norbeck et al. (1981; Norbeck, Lindsey, & Carrieri, 1983), the NSSQ, which measures multiple dimensions of social support, has adequate concurrent, discriminant, predictive, and construct validity, as well as adequate test-retest reliability” (Richman JM, 1993, p. 298). Concurrent validity is well supported by other social support questionnaires and providers. Many factors of the eight types of social support are well recognized and used by many other researchers including Yang J (2010) and Barefield (1997).

**Assessing the Change in Social Support Patterns Before and After Injury**

Yang J (2010), the author of *Social Support Patterns of Collegiate Athletes Before and After Injury*, investigated the composition of injured athletes’ social support networks and potential sources of support. Yang J (2010) was one of the first to have specifically addressed the injured athlete’s sources of social support and determine what group of individuals provides the most psychosocial support.
This is very important because health care professionals can understand how to effectively utilize psychosocial needs of athletes to recover from an injury more effectively. A total of 256 National Collegiate Athletic Association Division I male and female collegiate athletes aged 18 or older from 13 sports teams were used in this study.

Yang J (2010) measured social support with athletes using the 6-item Social Support Questionnaire. The questions asked were “whom could you really count on to be dependable when you need help?” and “whom could you really count on to help you feel better when you are feeling generally down in the dumps?” (Yang J, 2010, p. 373). Participating athletes were asked to answer each of 6 questions using response choices of (1) family, (2) friend, (3) coach, (4) athletic trainer, (5) physician, (6) counselor, or (7) other. Data on pre-injury and post-injury social support patterns were compared including sex differences, where they felt the most social support, and the satisfaction of each support system.

Yang J (2010) found that more male athletes reported relying on athletic trainers for social support post-injury, and their satisfaction with the post-injury support received from athletic trainers was also greater than baseline. “Our findings indicate that athletes’ social support patterns change after they become injured. In particular, perceived social support from athletic trainers increased, both in the number of athletes who identified athletic trainers as a source of support and in the degree of satisfaction with the support received” (Yang J, 2010, p. 376). This is a crucial finding because it shows that during an athlete’s
Injured athletes seek more psychosocial support from an athletic trainer. Many certified and student athletic trainers often struggle providing this need to athletes because of the knowledge/experience they have.

The Yang J (2010) study has several limitations. First, the findings from this study were based on a convenience sample of athletes from a single university, with a large number of white male athletes. Thus, the increased social support from athletic trainers after an injury observed in this study may reflect the relationship between injured athletes and athletic training staff only at the university studied, and the finding may not be generalizable to other universities, gender, or races. Yang J (2010) provided future research to his study stating, “Sex-specific interventions may also help injured athletes to adopt a more optimistic approach during their recovery process” (Yang J, 2010, p. 372). Yang J (2010) study states that, “findings identify an urgent need to better define the psychosocial needs of injured athletes and also strongly suggest that athletic trainers have a critical role in meeting these needs” (Jang J, 2010, p. 378). Thus, athletic trainers appear to be in a vital part of satisfying the psychosocial needs of injured athletes.

Athletic trainers need not only knowledge but also demonstrate skills and strategies to provide positive psychological support to assist athletes in rehabilitation. “Variables that could affect social support are: age, gender, school training, administration, length of work, past experience, location, personality characteristics, stereotypes, attraction, and job satisfaction” (A. Preuss, MED guidance and counseling, 2013, P. 33). These skills and strategies that are
taught in advanced education courses are rarely taught to the student athletic
trainer which is why there may be a need to better understand and define the
psychosocial needs of injured athletes.

**Expectations of Staff and Student Athletic Trainers**

Barefield (1997) examined the differences of certified athletic trainers and
student athletic trainers during rehabilitation and factoring in social support.
Athletic trainers are quite often an injured athlete's first and most frequent point of
contact with the health care system. “Certified athletic trainers see the injured
athlete on almost a daily basis from the time the athlete is first injured until he or
she returns to competition, a period that can include physicians' appointments,
medical testing, surgery, and rehabilitation” (Barefield, 1997, p. 333). This makes
sense because it goes hand in hand with the relationship portrayed in the Yang J
(2010) study regarding the crucial indication that an injured athlete seeks more
psychological support from an athletic trainer.

Survey and modified it for his study comparing the differences between certified
and student athletic trainers. Richman J. M (1993) stated that “task appreciation
and task challenge can be provided only by individuals who understand the
demands, complexities, and technicalities of the individual’s vocation” (p. 14).
Although student athletic trainers have begun to develop this understanding,
Barefield (1997) hypothesized that certified staff members, through their
education and experience, would be more qualified to provide what Richman JM
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(1993) calls the eight types of social support. Barefield (1997) expected that athletes would share his view and would report receiving and expecting to receive more social support from certified athletic trainers compared to the students athletic trainers.

The participants in the Barefield (1997) study consisted of 85 intercollegiate athletes (age range, 18 to 25 years) from a Division I University. Barefield (1997) used the SSS for his quantitative data collection. Barefield when referring to the SSS stated: “This instrument was developed by Rosenfeld, Richman, and Hardy from whom we obtained permission for its use. They conducted extensive studies to determine the validity and reliability of this instrument and reported their findings in the literature” (Barefield, 1977, p. 334). To determine validity, the authors tested the measurement of each of the eight types of social support and found acceptable levels of content, construct, and concurrent validity for all eight types. This validity and reliability study is extremely important because this researcher plans on using the same social support model as this study.

Barefield (1997) found that student athletic trainers scored slightly lower than certified staff members on each question. However, there were no significant differences found in the amount of social support athletes received or expected from staff or student athletic trainers. There were also no significant differences in the athletes’ satisfaction with the social support received from staff or student athletic trainers.
Because Barefield (1997) study was conducted at a single institution, the amount of social support provided to the athletes and their level of satisfaction with that support are, perhaps, more specific to the athletic training staff involved in this study and less generalizable to the athletic trainer population. The areas of tangible assistance (eg, money or gifts) and personal assistance (eg, running an errand) are not particularly applicable to an athletic training setting, and it is generally unacceptable for athletic trainers to provide these types of support to athletes. Barefield (1997) similarly agreed that “Athletes appear to recognize this and, thus, have much lower expectations of staff and student athletic trainers in these areas” (Barefield, 1997, p337). Due to these reasons, the current researcher decided to leave tangible and personal assistance out of his modified social support survey. The current researcher will anticipate similar limitations from Barefield’s (1997) study because of the convenience sampling.

**Testing Validity of Expectations on Staff and Student Athletic Trainers**

The researcher used the Barefield model for this study. Barefield (1997) research on comparing social support between certified athletic trainers and student athletic trainers was done over fifteen years ago. Not only was the study done in the past but it was also done at a Division I University. The current research was conducted to validate Barefield’s (1997) study because of these reasons. Data could vastly change because of the current time frame, a private Division III College, and taken place in a completely different atmosphere.
Effects of Social Support Given by Coaches and Teammates

John Bunyan studied *The Perceived Impact of Social Support Received from Coaches by Injured College Athletes*. Bunyan (1999) stated that, “The purpose of this study is to determine the amount of social support that injured college athletes report receiving from their coaches” (J. Bunyan, 1999, p.11). Bunyon (1999) study determined how injured college athlete’s feel about the social support they receive from their coaches and will also interpret the impact that an injury has on their academic performance and physical recovery. Bunyan’s (1999) study should help coaches better identify the needs of their injured athletes.

A total of 25 injured athletes were surveyed to collect the data for Bunyan’s (1999) study. The Life Events Survey for Collegiate Athletes, (LESCA), was used to determine stress and academic levels of the injured athletes. Bunyon (1999) also used a Social Support Inventory Survey to help his research grade the impact coaches had on their injured athletes. Bunyan’s (1999) study consisted of male and female athletes. They participated in football, basketball, soccer and cross-country at the University of Wisconsin-Stout. The results showed that starters received significantly more social support than non-starters. The data indicated that coaches not only showed a low level of social support overall, but also varied their level of social support to specific injured athletes. “The bias between a starter and a non-starter for a coach is a fine line. Coaches unfortunately look at their own personal needs as a coach and the needs of the team at that specific time in the season” (Bunyan, 1999, p26). It is also just as
important to give support to non-starters as it is to starters because they already receive less support according to Bunyan (1999). In conclusion, Bunyan’s (1999) study indicated a lack of support from their corresponding coaches and an awareness to help student athletes decrease stress and prevent a decline in academic performance. The results of Bunyan’s (1999) study will hopefully draw interest to college and high school coaches who deal with injured athletes. The results of Bunyan’s (1999) study provide awareness that coaches do in fact have a role in an injured athlete’s recovery process.

Throughout the onset and recovery of an athletic injury there may be many possible providers of social support including coaches, teammates, medical practitioners and significant others such as friends and family. In 2008, Fabien Corbillon, Jane Crossman, & John Jamieson, published a very similar study to Bunyan’s (1999) entitled the *Injured athletes’ perceptions of the social support provided by their coaches and teammates during rehabilitation*. The ultimate goal of Corbillon et al (2008) study was to measure the teammates and coaches role in the facilitation of and in the adherence to the rehabilitation process of injured athletes.

Athletes who had experienced athletic injuries were surveyed about their perceptions of the social supports provided by their coaches and teammates in each of the eight areas of social support identified by Richman et al (1993). Corbillon et al (2008) used the same SSS, including the eight areas of social support, comparing the differences of satisfaction, expectation, and amount of social support between teammates and coaches. Participants were 72 student-
Injured Athletes’ Perceptions of Social Support

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athletes (26 females, 46 males) from a small (7,558 students) Canadian University located in Northwestern, Ontario.

Corbillin (2008) found that athletes were significantly more satisfied with the task challenge support provided by coaches compared to teammates and also rated the task challenge support provided by coaches as making more of a contribution to their well being than that provided by teammates. In contrast, teammates were significantly more available than coaches to provide emotional support. This makes sense because coaches maintain emotional distance between themselves and their athletes to avoid privileging any of them. “Coaches should also provide a technical challenge to their injured athletes to motivate athletes return to competition” (Corbillon et al, 2008. p. 19). Many of the other categories had very similar results between both teammates and coaches. Some of the social support categories of Richmond et al (1993) are currently illegal in athletics and were completely irrelevant. Such irrelevant social support categories are tangible and personal assistance which involves giving gifts, rewards, and giving favors.

Corbillon’s (2008) findings were that athletes did not perceive greater overall support from either teammates or coaches; the main effect was not significant for satisfaction, availability or contribution. Corbillon et al (2008) study had some limitations. The University where Corbillon (2008) research was conducted had all of their participants’ rehabilitation at home or at a nearby hospital. There was no athletic training service provided to the college so if the player did not do rehabilitation at the hospital, the coach would have no objective
information provided by an athletic training professional working for the college. The University used for Corbillon (2008) study did not have a football team. The inclusion of a football team may have produced different results. Another limitation was that a convenience sample located at a single University in Canada.

The results obtained by Bunyan (1999) and Corbillon et al (2008) are very beneficial for the current study because they show how important various forms of social support can be to injured athletes. If coaches are a weaker form of social support and teammates may only provide a high amount of emotional support, than athletic trainers may even prompt a higher amount of emotional care, suggested by Yang J (2010). The research of Bunyan (1999) and Corbillon et al (2008) underscores the importance of athletic trainers providing social support to injured athletes.

**Chapter Summary**

When an athlete is injured, they suffer from physical and emotional stress. Every individual athlete has different reactions, motivation and behaviors when they suffer an injury. Studies have shown that athletes benefit physically and mentally from rehabilitation and social support during an injury. The sports medicine staff has a large influence on athletes during their injury period. This is why it is extremely important for the sports medicine staff to do their jobs to the best of their abilities and treat athletes as individuals and not just treat the injury. With supervision, student athletic trainers can also provide care to athletes.
Although student athletic trainers lack experience suggested by Barefield (1997), they can still provide social support in the sports medicine setting and outside the clinic. Richman JM (1993) developed a valid survey that assesses social support in eight separate categories. Coaches and teammates can also provide social support to injured athletes but are limited according to Bunyan (1999) and Corbillion et al (2008) studies. Yang J (2010) study supports the idea that injured student athletes require social support from the athletic training staff along with other social groups. This is why it is important to test the validity of previous research of Barefield (1997). Testing the validity of Barefield (1997) is important because we can see if athletes rely on more social support from either the staff or student athletic trainers. Barefield study was done seventeen years ago in a Division 1 Southern University while the current study is done in a Division III Wisconsin College. The results of the current study can diversely change from Barefield (1997) due to these specific differences of time frame and culture.
Chapter 3

Methodology

Data Sources

This study was conducted at a southeast Wisconsin Private Division III College. There were a total of 37 participants in this study. Of the 37 participants, five were females and 32 were male. The observations were done during rehabilitation appointments in the Colleges Athletic Training Room. The institution studied has a very large number of athletes involved in sports. The college is currently highly geared toward athletics, with a new field house and athletic building, a new stadium, and new turf fields. The college has an athletic training program for current students to earn a degree in athletic training. Students in the athletic training program are able to help with rehabilitation and athlete care once they reach junior stature within the college’s program. The athletic training program at the college is a four year bachelor degree program and students must graduate and take the national board of certification examination for certification.

There were a total of 16 athletic training students helping the certified athletic trainer during morning rehabilitation hours. All 16 of these students are over the junior stature so are able to help participate in rehabilitation. Athletic Training Students have different levels of experience and responsibilities. A level one athletic training student in the college program may only observe what happens in the athletic training room. Level two through four athletic training
Injured athletes (sophomores, juniors, and seniors) are allowed to help with rehabilitation within the athletic training program.

The participants in this study were collegiate athletes attending this institution. Athletes of both genders were able to participate in this study. The participants ranged in age from 18 to 23 years. The researcher chose to use all class age ranges to get a better grasp of collegiate athletes as a whole. The current study also involved a wide variety of sports. The researcher separated the degree of injury to mild (\(< 10 \text{ days})\), moderate (11-29 days), and severe (\(>30 \text{ days of missed playing time}\)). The researcher separated injury severity to assess if there was a correlation between the three types of injuries. An injury lasting \(1 \leq 4 \text{ days or less}\) were not used in this study. There were eleven mild injuries, twenty moderate, and six severe injuries.

**Data Collection**

The researcher used one method of data collection in this study: a survey. The Social Support Survey (SSS) was given online or in the athletic training room after rehabilitation ended or once the athlete returned to their sport. The researcher used an adaption of Richman JM (1993) Social Support Survey for data collection (See Appendix A). The questions required the participants to choose which answer they believed best describes how they felt about the social support given from certified athletic trainers and student athletic trainers. There were a total of 17 questions beginning with addressing gender, days injured, sport played during injury. Participants were not asked to identify their marital
status, educational achievements, or ethnic background to preserve anonymity. The last 12 questions asked about the amount of support given, the amount of support expected, and the quality of support received with 4 different types of social support. The participants were asked to rate these social support questions using a five point Likert Scale. A five point Likert scale rating used five as the highest amount of support possible while a one was no amount of support. The participants had to answer these questions for both the student and the certified athletic trainer. The Institutional Review Board completed their review of this study and approved of the study ruling it “exempt”. Participation in this survey was voluntary and results of each individual respondent were kept confidential. The researcher used these same questions regarding emotional support, task appreciation, and task challenge. The researcher chose four of the eight types of social support according to J. M Richman (1993) because they are applicable to this study. See Appendix A for the complete survey:

Collection Procedures

The data collection began when the injured athlete showed up for their first appointment of rehabilitation in the morning. The researcher read a confidentiality statement that stated, “this study is voluntary and all information received will be kept anonymous/confidential with only my advisory board knowing the details”. The researcher used convenience sampling in order to recruit participants. Once the athlete agreed to participate in the study, the researcher would give the SSS survey upon the injured athlete returning to their sport. The researcher asked the athlete if they would like any off-site social
support from the Dean of Students or from the on-campus counselor to help cope with stress. None of the injured athletes required treatment from the Dean of Students or from the on-campus counselor. This question was asked weekly by the researcher.

Once the injured athlete was able to return to their sport or was discharged from the ATC’s care, the researcher conducted the SSS online or by paper copy with the athlete. The researcher addressed any questions and concerns before and during completion of the questionnaire. As the data collection process advanced, the researcher analyzed all results and reviewed all research documents. On average, the survey took about 5 minutes to complete.

After the research study was approved by the Carthage College Master’s committee, all individual questionnaire responses were disposed of.

**Role of Researcher**

The researcher in this study was the primary source for collecting data, and took a unique role while collecting data. This made the data convenient to collect, easy to interpret, and to analyze results. The participants knew the researcher and were aware of the study being done.

The researcher’s primary role with collegiate athletes is to perform rehabilitation with the participants and to aid in the learning of student athletic trainers. During the time spent rehabilitating the injured athletes, The researcher was able to develop a relationship, which was built upon trust and credibility allowing for comfort and understanding which aided in the research process. By conducting this study, the researcher hoped to help the athletes by developing an
understanding of the effect of social support during an injury period and to help redefine athlete’s needs during the injury period.

Validity and Reliability

Richman JM (1993) social support survey has high construct validity. Since social support is easy to measure directly with injured athletes, the researcher could consider other factors including gender, length of injury, and sport played. Construct validity is supported by this study because there are other research articles using the same survey created by Richman JM (1993). Other studies that supported the reliability of Richman JM (1993) social support survey were Norbeck et al.’s (1981) Norbeck Social Support Questionnaire (NSSQ) and Sarason, Sarason, Shearin, and Pierce’s (1987) Social Support Questionnaire-6 (SSQ-6). Based on reports by Norbeck et al. (1981; Norbeck, Lindsey, & Carrieri, 1983), “the NSSQ, which measures multiple dimensions of social support, has adequate concurrent, discriminant, predictive, and construct validity, as well as adequate test-retest reliability” (Richman JM, 1993, 298). Construct validity is also supported by this study because the researcher used similar variables with Barefield (1997) study and the instrument provided accurate information about social support. Barefield (1997) concluded that there were no specific differences between certified and student athletic trainers in regards to social support. The current study sought to test Barefield's (1997) study to provide more validity and reliability for future research.
Data Analysis

A two sample t-test: assuming equal variance was used to compare the student and certified athletic trainers' perceived impact of social support. A t-test was also used to assess injured athletes support expectations of both certified and student athletic trainers. A single factor ANOVA was used to compare individual sport team’s injured athletes including lacrosse, football, and soccer scores on satisfaction of social support provided by the certified athletic trainer. The researcher used only these sports because most of the participants in the study were in these three categories. The researcher also used a single factor ANOVA to compare social support levels of injured athletes separating them according to mild, moderate, and severe injuries.

An alpha level of 0.05 was utilized for both the ANOVA, and t-tests to analyze any statistically significant differences between variables. If the difference in test scores were 0.05 or less, they were considered to be a statistically significant differences. The 0.05 level was used because this is one of the first studies using a Division III College to assess athlete’s perceived social support. The 0.05 confidence level was also used because it provides very accurate statistical data compared to a greater chance of error with a 0.10 or 0.15 significance level.

Chapter Summary

There were a total of 37 student athletes who participated in this research study. Richman JM (1993) survey of rating social support was the basis for the researcher’s questionnaire. Customizations were added including a few
questions regarding gender, sport played during injury, and how many days of injury. Based on previous studies and research the investigator concluded that construct validity was present and the reliability was high for the Richman JM (1993) survey. A single factor ANOVA test, and t-tests: two sample assuming equal variances were used to investigate the relationships regarding social support categories and their respective variables for student and certified athletic trainers.
Chapter 4

Results

Introduction

The data analysis and findings of this study were divided into two different Appendices, B and C. The first section found in Appendix B, presents data addressing hypotheses one, two, three, four, and five using paired t-tests: two sample assuming equal variance. The third section found in Appendix C, presents data addressing hypotheses six and seven using an ANOVA single factor. Results for hypothesis one through seven, below include a restatement of the null and research hypotheses preceding the presentation of the appropriate analysis and results.

Table 1 below was used to present the t-tests results for hypotheses B1 through B5:

Table 1.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t Critical</th>
<th>t Stat</th>
<th>P-Value</th>
<th>Decision</th>
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<tr>
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<td>.0017</td>
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<tr>
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<td>2.883</td>
<td>.0052</td>
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</tr>
<tr>
<td>B5</td>
<td>1.968</td>
<td>3.486</td>
<td>.0005</td>
<td>Reject Ho Accept H1</td>
</tr>
</tbody>
</table>
In terms of hypothesis one presented in Table 1(B1)

- Null: The injured athlete’s perceived listening support provided by the certified athletic trainer is equal to the amount of listening support from the student athletic trainers.

- Research: The injured athlete’s perceived listening support provided by the certified athletic trainer is not equal to the amount received from the student athletic trainers.

Table 1(B1) presents statistically significant differences on how much the certified athletic trainer provided listening support compared to the student athletic trainer for the injured athletes. Using a paired t-test assuming equal variance: the two tail p value was .0017 with an alpha level set at 0.05. The t Statistic found was 3.253. With a p value of .0017, the outcome is less than 1% likely in the null hypothesis. This evidence allowed the researcher to reject null hypothesis one and accept research hypothesis one.

In terms of hypothesis two Table 1(B2)

- Null: The injured athlete’s perceived emotional support received from the certified athletic trainer is equal to the amount received from student athletic trainers.

- Research: The injured athlete’s perceived emotional support received from certified athletic trainer’s is not equal to the amount received from the student athletic trainers.
Table 1(B2) presents statistically significant evidence of how much the certified athletic trainer provided emotional support compared to the student athletic trainer for the injured athletes. Using a paired t-test assuming equal variance: two tail p value was .0164 with an alpha level set at 0.05. By finding a t Statistic of 2.456, and a p value of .0164 provides the outcome is less than 2% likely in the null hypothesis. This evidence allowed the researcher to reject null hypothesis two and accept research hypothesis two at a 0.05 level of significance.

In terms of hypothesis three Table 1(B3)

- Null: The injured athlete’s perceived task appreciation provided by the certified athletic trainer is equal to the amount of task appreciation provided by the student athletic trainers.

- Research: The injured athlete’s perceived task appreciation provided by the certified athletic trainer is not equal to the amount of task appreciation provided by the student athletic trainers.

For Hypothesis 3, Table 1(B3) presents statistically significant evidence of how much the certified athletic trainer provided task appreciation support compared to the student athletic trainer for the injured athletes. Using a paired t-test assuming equal variances: the two tail p value was .0350 with an alpha level set at 0.05. By finding a t Statistic of 2.149, and a p value .0350. This evidence allows the researcher to reject the null hypothesis three and accept research hypothesis three at a 0.05 level of significance.

In terms of hypothesis four Table 1(B4)
Null: The injured athlete’s perceived task challenge provided by the certified athletic trainer is equal to the amount provided by the student athletic trainers.

Research: The injured athletes perceived task challenge provided by the certified athletic trainer is not equal to the amount provided by the student athletic trainers.

Table 1(B4) presents statistically significant evidence of how much more the certified athletic trainer provided task challenge support compared to the student athletic trainer in terms to the injured athletes. Using a paired t-test assuming equal variance: a two-tailed p value of .0052 was found with a t Statistic of 2.882. With a p value of .0052, the outcome is less than 1% likely in the null hypothesis. This evidence allowed the researcher to reject null hypothesis four and accept research hypothesis four at a 0.05 level of significance.

In terms of hypothesis five Table 1(B5)

Null: The injured athlete’s expected amount of social support received by the certified athletic trainer is the same or less than that received from the student athletic trainers.

Research: The injured athlete’s expected amount of social support received from the certified athletic trainer is greater than that received from the student athletic trainers.
For Hypothesis 5, Table 1(B5) presents statistically significant evidence of how much more injured athletes expected social support from the certified athletic trainer compared to the student athletic trainer. Using a paired t-test assuming equal variance: a two tailed p value was found at .0005 with a t Statistic of 3.486. With a p value of .0005, the outcome is less than 1% likely in the null hypothesis. This evidence allowed the researcher to reject null hypothesis five and accept research hypothesis five at a 0.05 level of significance.

Table II below presents the ANOVA results for hypotheses C1 and C2:

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<th>P-Value</th>
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<td>Accept HO</td>
</tr>
</tbody>
</table>

In terms of hypothesis six Table II(C1)

- Null: There is no difference in an injured athletes satisfaction with the listening support received from the certified athletic trainers between football, soccer, and lacrosse athletes.

- Research: There is a difference in injured athlete’s satisfaction of listening support received from the certified athletic trainers between football, soccer, and lacrosse athletes.
The ANOVA single factor analysis results presented in Table II(C1) found no statistically significant differences between social support satisfaction scores among the three different sports. An ANOVA F value of .8247 was found with a p value of .4404 and with an alpha level set at 0.05. Based on this evidence the researcher accepted null hypothesis six.

In terms of hypothesis seven Table II(C2)

- Null: There is no difference in injured athletes expected amount of social support received from the certified athletic trainer between mild, moderate, and severe athletic injuries.

- Research: There is a difference in injured athletes expected amount of social support received from the certified athletic trainer between mild, moderate, and severe athletic injuries.

An ANOVA single factor analysis results found in Table II(C2) yielded no statistically significant differences between mean social support expectation scores among the three different classification of Injury. An ANOVA single factor F value of 1.095 was found with a p value of .3593 and the significance level set at 0.05. Based on this evidence the researcher accepted null hypothesis seven.

**Chapter Summary**

A paired t-test: two sample assuming equal variances was used to analyze the social support variables by comparing them for certified athletic trainer and student athletic trainers for hypotheses one, two, three, four, and five. The t-tests found statistical significance between the certified and student athletic
trainers. An ANOVA single factor was used to analyze hypothesis six and seven. Based on the data analysis, five out of seven research hypotheses were accepted. An alpha level set at 0.05 was used to test the significance of all seven hypotheses.
Chapter 5

Discussion, Conclusions, and Implications for Future Research

Overview

As described previously, there were seven hypotheses studied regarding injured athletes perceived social support at a Southeastern Wisconsin Division III College. Based on the data analysis results, there was no significant difference regarding the injured athlete’s satisfaction of listening support from the certified athletic trainers between injured football, soccer, and lacrosse team members. There was also no significant difference from the injured athletes in terms of expected amount of social support from the certified athletic trainer between mild, moderate, and severe injuries. However; there was a significant difference between the injured athletes perceived expected amount, and amount of social support received from the certified athletic trainer compared to the student athletic trainers.

Discussion

This study’s results were supported by several research studies cited in Chapter Two. These studies included, Leddy et al’s (1994) *Psychological Consequences of Athletic Injury among High-Level Competitors*. Leddy et al (1994) research stated that injured athletes may experience similar behaviors to the five stages of loss provided by Kublar Ross (1969). These behaviors require psychosocial support to help overcome the obstacles an injured athlete experiences. Scott Barefield’s (1997) *Social Support in the Athletic Training*
Room: Athletes’ Expectations of Staff and Student Athletic Trainers, supported this study’s findings that certified and student athletic trainers play a large role in the recovery process of an injured athlete. Barefield’ (1997) study was the main reason the current researcher did this validation study of his own. Crossman’s (1997) *Psychological Rehabilitation*, also represented the need to treat the injured athletes mentally as well as physically. Bunyan’s (1999) *The Perceived Impact of Social Support Received from Coaches by Injured College Athletes*, determined that coaches provided a lack of social support to injured athletes, especially to the players who did not have much playing time. Bunyan (1999) sought to spread awareness to coaches of this problem and also supported this study’s results for the need of psychosocial support to all injured athletes regardless of playing time. Theresa Bianco’s (2001) *Social support and recovery from sport injury: elite skiers share their experiences*, gives the reader actual examples of social support through interviewing the injured world class skiers. Lockard’s (2005) *Athletic trainers: Providing healthcare for athletes of all kinds*, discussed the role of what certified athletic trainers do for a career listing social support as one of the many things that they provide. Klenk’s (2006). *Psychological Response to Injury, Recovery, and Social Support: A Survey of Athletes at an NCAA Division I University*, indicated that social support helps injured athletes psychologically to help recovery and motivation. Corbillon et al’s (2008), *Injured Athletes’ Perceptions of the Social Support Provided by Their Coaches and Teammates During Rehabilitation*, suggested that coaches and teammates provide specific levels of social support to injured athletes, but do not
provide a diverse amount of social support suggested by Richman (1993).

Yang's (2010) *Social support patterns of collegiate athletes before and after injury*, stated that injured athletes depended on certified athletic trainers the most out of any other social group for psychosocial support during recovery.

**Conclusion**

Appendix B, table B1-B4, presents the social support provided to the injured athletes comparing the student and certified athletic trainers. The results showed there were significant differences with the four types of social support favoring the research hypothesis. Table B5 measures the expected amount of social support athletes wanted to receive comparing student and certified athletic trainers. The Null was rejected because the data provided a significant difference that the injured athletes expected more social support from certified athletic trainers. Appendix C, table C1, indicated the lack of difference between listening support given to the individual sport team members including soccer, football, and lacrosse. Table C2 presents the lack of difference of injured athletes expected amount of social support needed from severe, moderate, and mild injuries. All of the data was collected using Richman JM (1993) modified Social Support Survey.

The social support survey results analysis indicated a significant difference in the amount of social support received by athletes from certified athletic trainers and student athletic trainers. The athletes' expectations of staff and student athletic trainers with regard to provision of social support; the
athletes' level of satisfaction with certified athletic trainers was significantly
greater than that from student athletic trainers' provision of social support. These
results are inconsistent with Barefield's (1997) study where the results of
perceived social support from injured athletes showed no significant difference of
support received from certified athletic trainers and student athletic trainers, or in
the athletes' expectations of staff and student athletic trainers. Variables
including different time frame, cultural difference, and divisional university/college
differences indicate that inconsistent results of the social support survey are not
a bad thing. Barefield (1997) states that “finding that athletes do not differentiate
between staff and student athletic trainers in this area is significant in itself and
has implications for athletic training education programs” (p. 337).

The fact that injured athletes' social support scores peaked highest with
the certified athletic trainers suggests that variables including experience, formal,
and informal training affecting the injured athlete's attitude toward received social
support have changed during the past seventeen years. The difference in
Barefield's (1997) results could be very possibly made due to having schools with
athletic training programs incorporating more social support concepts in their
curriculums during the past seventeen years. A culture change coming from a
Southern Wisconsin Division III College compared to a Division I University may
provide many subjective and objective differences pertaining to health care
received by injured athletes. These results were supported by Corbillon et al's
(2008) study using a modified Social Support Survey provided by Richman
(1993). Corbillon et al (2008) study suggested that coaches may provide a higher
amount of task challenge and task appreciation social support, while teammates provide more emotional and listening support. Both are very important when trying to aid in an injured athlete’s recovery, but a certified athletic trainer may provide a high amount of social support for listening support, emotional support, task appreciation, and task challenge. This can also be attributed as suggested by Yang J (2010) who found that injured athletes expect and require more social support from the athletic training staff members than any other social group. Yang J (2010) study helped bring a positive, yet informative, perception of how athletic trainers provide health care to injured individuals and not just their injuries.

Although the data suggests that certified athletic trainers provide more social support to injured athletes, this does not imply that student athletic trainers play no role in aiding to the psychosocial support to athletes. Athletes need to know that there are individuals in their corner who understand the frustration they are experiencing, the pain injuries may cause, and the emptiness they are feeling from obstacles inhibiting them to do something they love. The certified and student athletic trainers work hand in hand to help aid injured athletes which is the reason many choose this career path. “Both groups must be aware of the importance of social support to athletes and its value in enhancing not only injury rehabilitation but also the overall athletic experience (Barefield, 1997, p. 337). Barefield (1997) created a valuable list of strategies to help aid in the degree of social support student athletic trainers can provide to injured athletes. The
strategies will provide more care to injured athletes and also aid in the growth of student athletic trainers.

The list of strategies, provided by Barefield (1997), suggest that student athletic trainers should: observe the communication skills and psychological aspects of the trainer-athlete relationship, be offered in-services and lectures of the importance of social support including role-playing in providing psychosocial support, understand the importance of patient confidentiality. Lower-level student athletic trainers may not have the technical skills to discuss a specific injury or aid in rehabilitation to injured athletes, but they can play a valuable role in listening to and being supportive of the athlete. These student athletic trainers playing this role will benefit the injured athlete and also make the student athletic trainer feel more useful as well. Barefield suggests that institutions assign more experienced students to stay with specific injured athletes through their daily rehabilitation protocol. This builds rapport with the student and injured athlete by adding familiarity and providing more task appreciation and task challenge support to the injured athletes. By incorporating these strategies suggested by Barefield (1997), students can increase their role in the athletic training room, increase self-awareness, and provide more social support to injured athletes; thus increasing how to better treat injured athletes both mentally and physically.

Analyzing the no significant difference findings in injured athlete’s satisfaction of listening support from the certified athletic trainers between football, soccer, and lacrosse injured athletes, could be a result of athletes requiring similar needs of social support from staff athletic trainers regardless of
sport. The researcher can speculate that based on this lack of difference, the satisfaction of listening support could be identical in all sports if they were tested. The researcher only used one of the eight types of social support according to Richman (1993) for the comparison of different sport teams. The satisfaction of listening support was used for comparing the injured athletes from distinctive sport teams because of the importance of listening. “Injured athletes particularly need athletic trainers to take the time to listen to them” (Barefield, 1997, p. 336). “If someone listens to another with full attention, conviction, commitment, and support, the speaker feels affirmed and important and has a sense of his/her value and the validity of his/her feelings, ideas, and experiences” (Friedman, 2014, p. 1). Injured athletes from football, soccer, and lacrosse were used because these sport teams provided the most data to the researcher.

The current researcher separated data to test the difference between mild, moderate, and severe injuries to investigate if one category would expect more support from the certified athletic trainers. Although; the total mean of each injury category increased the longer the athletes were injured, the results were not significant enough allowing the investigator to conclude there was no difference in injured athletes expected amount of social support from the certified athletic trainer between mild, moderate, and severe injuries with a significance level of .05. The researcher can speculate that all athletes expect a certain amount of social support if they are injured regardless of the type or severity of injury.
Limitations of Study

There are general limitations for the current study; one of them being the ability to generalize these findings to other Athletic Training Departments at different Colleges and Universities because of sample size and demographic restrictions. The Southeastern Wisconsin Division III College has 33% of the student body committed to athletics which is roughly 800 athletes total. Another limitation of this study included the researcher’s inability to collect a larger sample of data from injured female athletes. Only five of the 37 participants were female which altered any type of hypothesis study comparing gender. The fact that the researcher was unable to sample a larger number of injured female athletes affects social support scores, and more importantly the scores regarding satisfaction of social support within and between different sports. Lack of female perspective in psychosocial rehabilitation also hindered the researcher’s ability to generalize his findings to other Colleges and Universities who have more diverse and larger student athlete populations. Another demographic variable that could have affected the generalization of this study’s findings is ethnicity. Even though the researcher did not require the injured athletes to indicate their ethnicity, based on his observations there was not an adequate sample of minorities to measure as an independent variable. The researcher also found limitations in his survey where it did not address educational achievements or personality types. The researcher could have used this information to investigate how they interact with social support during rehabilitation and discover the types of correlations between them. According to Richardsen et al. (2006) because type A
personalities thrive on accomplishments, their repetitive inability to achieve complete resolution can lead to stress and eventually occupational burnout. The Social Support Survey did not include any questions analyzing the different personality types. Having the survey include a personality type question would have been beneficial to assess if personality type affected perceived social support levels of satisfaction, expectation, and provision scores in the Southeastern Wisconsin Division III College studied. Different personalities promote a different emotional response and according to Wiese-Bjornstall et al, “These self- perceptions in turn influence emotional and behavioral response to sport injury” (1998, p. 52).

**Suggestions for Future Research**

Suggestions for future research include sampling a larger number of injured athletes from the population of interest. By doing this the researcher might acquire a more diverse sample to strengthen the generalizations from this study. Another suggestion is that future research should be studying the demographic variables of different universities and colleges prior to choosing one in order to prevent sampling issues to strengthen the validity and reliability of the study. The researcher believes the most important suggestion would be to add a qualitative aspect to the study for a better interpretation of the quantitative data. A qualitative portion would give the reader a personal and practical analysis of the perceived effect of social support and the variables affecting it. Theresa Bianco (2001), who wrote *Social support and recovery from sport injury: elite skiers share their experiences*, gives the reader actual examples of social
support through interviewing the injured world class skiers. Bianco (2001) helped the skiers through their injury recovery process and interviewed them about their experience and used methods of observation to inscribe her results. An example of this was when Bianco (2001) traced the skiers' psychological journey from injury and illness through recovery, with an emphasis on variables contributing to stress and the strategies used to manage this stress. Factoring in injured athletes' feedback through the recovery process would give the reader a first person perspective on methods to reduce stress and provide positive social reinforcement. Through the transcribing of actual events and experiences in qualitative research, the audience would gain a more practical understanding of the factors affecting injured athletes.

**Chapter Summary**

The important implications from this study include how the social support survey indicated a significant difference in the amount of social support received by injured athletes from certified athletic trainers and student athletic trainers, and in athletes' expectations of staff and student athletic trainers. Certified Athletic trainers scored significantly higher compared to the student athletic trainers in this regard. The researcher can conclude that the certified athletic trainers have more experience, formal, and informal training to help provide listening, emotional, task appreciation, and task challenge support. Another important implication found in this study was that there was no difference in the satisfaction of listening support to injured athletes from each different sport team. Having no difference in the team members satisfaction of listening support may
suggest that injured athletes appreciate social support regardless of the individual sport team they are on. There were many limitations to the study and suggestions for future research. The most important limitation deals with the lack of diversity concerning minority injured athletes which affects the generalization of the study’s results. The most important suggestion is adding a qualitative aspect to the study to further interpret and strengthen all quantitative data.
References


Bunyan, J. (1999, December 1). The Perceived Impact of Social Support Received from Coaches by Injured College Athletes.


Appendix A


**Athletic Training Social Support Survey**

Male or Female (circle one)

What Collegiate Sport do you play?__________________

How many days have you been Injured?______________

**Listening support: People who listen to you without giving advice or being judgmental**

- In general, to what degree did members of the athletic training staff provide you with listening support?

<table>
<thead>
<tr>
<th></th>
<th>Very little support</th>
<th>High amount of support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

- In general, to what extent did you expect or hope to receive listening support from members of the athletic training staff?

<table>
<thead>
<tr>
<th></th>
<th>Very little expectation</th>
<th>Very high expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

- In general, how satisfied are you with the overall quality of listening support you received from members of the athletic training staff?

<table>
<thead>
<tr>
<th></th>
<th>Very dissatisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

**Emotional Support: the perception that another is providing comfort and indicating that she or he is on the support recipient’s side.**

- In general, to what degree did members of the athletic training staff provide you with emotional support?

<table>
<thead>
<tr>
<th></th>
<th>Very little support</th>
<th>High amount of support</th>
</tr>
</thead>
</table>
In general, to what extent did you expect or hope to receive emotional support from members of the athletic training staff?

<table>
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</tr>
</thead>
<tbody>
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<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
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</table>

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<tr>
<th></th>
<th>Very dissatisfied</th>
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</thead>
<tbody>
<tr>
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<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

**Task Appreciation**: the perception that another is acknowledging the support recipient’s efforts and is expressing appreciation for the work she or he does.

In general, to what degree did members of the athletic training staff provide you with task appreciation?

<table>
<thead>
<tr>
<th></th>
<th>Very little support</th>
<th>High amount of support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

In general, to what extent did you expect or hope to receive task appreciation from members of the athletic training staff?

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<thead>
<tr>
<th></th>
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<th>Very high expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
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<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

In general, how satisfied are you with the overall quality of task appreciation you received from members of the athletic training staff?

<table>
<thead>
<tr>
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<th>Very satisfied</th>
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</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Injured Athletes' Perceptions of Social Support

Task Challenge: the perception that another is challenging the support recipient's way of thinking about a task or an activity in order to stretch, motivate, and lead the support recipient to greater creativity, excitement, and involvement.

- In general, to what degree did members of the athletic training staff provide you with task challenge?

<table>
<thead>
<tr>
<th></th>
<th>Very little support</th>
<th>High amount of support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
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<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

- In general, how satisfied are you with the overall quality of task challenge you received from members of the athletic training staff?

<table>
<thead>
<tr>
<th></th>
<th>Very dissatisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified staff members</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B

Table B1. Comparing Mean Scores of Injured Athlete’s Listening Support Provided by Certified and Student Athletic Trainers.

### t-test: Two-Sample Assuming Equal Variances Hypothesis #1

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
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</tr>
<tr>
<td>Variance</td>
<td>0.158</td>
</tr>
<tr>
<td>Observations</td>
<td>37</td>
</tr>
<tr>
<td>DF</td>
<td>72</td>
</tr>
<tr>
<td>T Stat</td>
<td>3.253</td>
</tr>
<tr>
<td>P(t&lt;=t) two-tail</td>
<td>0.0017</td>
</tr>
<tr>
<td>T Critical two-tail</td>
<td>1.993</td>
</tr>
</tbody>
</table>
Table B2. Comparing Mean Scores of Injured Athlete’s Emotional Support Provided by Certified and Student Athletic Trainers.

**t-test: Two-Sample Assuming Equal Variances Hypothesis #2**

<table>
<thead>
<tr>
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<th>Variable 2</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4.513</td>
<td>3.946</td>
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<tr>
<td>Variance</td>
<td>0.646</td>
<td>1.330</td>
</tr>
<tr>
<td>Observations</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>DF</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>T Stat</td>
<td>2.456</td>
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</tr>
<tr>
<td>P(t&lt;=t) two-tail</td>
<td>0.016</td>
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<tr>
<td>T Critical two-tail</td>
<td>1.993</td>
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</table>
Table B3. Comparing Mean Scores of Injured Athlete’s Task Appreciation Provided by Certified and Student Athletic Trainers.

**t-test: Two-Sample Assuming Equal Variances Hypothesis #3**

<table>
<thead>
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<tbody>
<tr>
<td>Mean</td>
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<td>4.162</td>
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<tr>
<td>Variance</td>
<td>0.526</td>
<td>0.973</td>
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<tr>
<td>Observations</td>
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<td>37</td>
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<tr>
<td>DF</td>
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<td></td>
</tr>
<tr>
<td>T Stat</td>
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</tr>
<tr>
<td>P(t&lt;=t) two-tail</td>
<td>0.035</td>
<td></td>
</tr>
<tr>
<td>T Critical two-tail</td>
<td>1.993</td>
<td></td>
</tr>
</tbody>
</table>
Table B4. Comparing Mean Scores of Injured Athlete’s Task Challenge Provided by Certified and Student Athletic Trainers.

**t-test: Two-Sample Assuming Equal Variances Hypothesis #4**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Mean</td>
<td>4.676</td>
<td>4.108</td>
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<tr>
<td>Variance</td>
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<td>1.154</td>
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<tr>
<td>Observations</td>
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<td>37</td>
</tr>
<tr>
<td>DF</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>T Stat</td>
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<tr>
<td>P(t&lt;=t) two-tail</td>
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</tr>
<tr>
<td>T Critical two-tail</td>
<td>1.993</td>
<td></td>
</tr>
</tbody>
</table>
Table B5. Comparing Mean Scores of Injured Athlete’s Expectations of Social Support Between Certified and Student Athletic Trainers.

*t-test: Two-Sample Assuming Equal Variances Hypothesis #5*

<table>
<thead>
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<tr>
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<td>Variance</td>
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<td>DF</td>
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<tr>
<td>T Stat</td>
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<tr>
<td>T Critical two-tail</td>
<td>1.969</td>
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</tr>
</tbody>
</table>
Appendix C

Table C1. Comparing mean scores of athletes social support satisfaction between football, soccer, and lacrosse.

*Anova: Single Factor Hypothesis #6*

<table>
<thead>
<tr>
<th>SUMMARY</th>
<th>Groups</th>
<th>Count</th>
<th>Sum</th>
<th>Average</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
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<td>22</td>
<td>107</td>
<td>4.86364</td>
<td>0.12338</td>
</tr>
<tr>
<td></td>
<td>Column 2</td>
<td>7</td>
<td>33</td>
<td>4.71429</td>
<td>0.2381</td>
</tr>
<tr>
<td></td>
<td>Column 3</td>
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<td>18</td>
<td>4.5</td>
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</tr>
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</table>

<table>
<thead>
<tr>
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<th>Source of Variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P-value</th>
<th>F crit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Between Groups</td>
<td>0.49567</td>
<td>2</td>
<td>0.24784</td>
<td>1.0592</td>
<td>0.35934</td>
<td>3.31583</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>7.01948</td>
<td>30</td>
<td>0.23398</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>7.51515</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Table C2. Comparing mean scores of athlete’s expectations of social support received from athletic trainers between mild, moderate, and severe injuries.

**Anova: Single Factor Hypothesis #7**

<table>
<thead>
<tr>
<th>SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
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<tr>
<td>Column 1</td>
</tr>
<tr>
<td>Column 2</td>
</tr>
<tr>
<td>Column 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVA</th>
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</thead>
<tbody>
<tr>
<td>Source of Variation</td>
</tr>
<tr>
<td>Between Groups</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>