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Student Athletes And Factors That Determine Their Social Support Circle

Elizabeth Anne Gelhaus

STUDENT ATHLETES AND FACTORS THAT DETERMINE THEIR SOCIAL SUPPORT CIRCLE

A Masters Thesis

Presented to

The Graduate College of

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In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Athletic Training

By

Elizabeth Anne Gelhaus

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ABSTRACT

Research has shown that the risk of athletic injury increases with increased psychological stress and that social support can help reduce risk of injury. Collegiate athletic trainers spend a considerable amount of time with and build unique relationships with the athletes on whom they work with. However, no research is available on specific factors that cause an athlete to turn to an athletic trainer for social support. An electronic survey was developed and sent to 938 local collegiate athletes to determine if, how, and why student athletes utilize athletic trainers for social support. The results from this study found that the more satisfied student athletes are with the level of social support provided by an athletic trainer, the more likely they are to confide in one (No injury prime: $b = 0.79$, $t(31) = 7.20$, $p = <0.001$; Injury prime: $b = 0.96$, $t(26) = 7.00$, $p = <0.001$). Further research is needed to look at what specific psychosocial problems lead athletes to seek athletic trainers for social support, what specific characteristics an athlete looks for in an athletic trainer to feel comfortable seeking social support, and what athletic trainers can do to make athletes feel more comfortable confiding in them for social support.

KEYWORDS: trait anxiety, mental health, psychosocial problems, athletic injury, stress response

This abstract is approved as to form and content

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INTRODUCTION

Collegiate athletic trainers build a unique relationship with the student athletes they work with. Most are available and present at every practice and game, which allows them to frequently be the first contact with an injured athlete. Collegiate athletic trainers are typically in constant contact with an injured athlete from time of injury until they return to play – which often includes physician appointments, medical testing, surgery and rehabilitation.[1,2] Due to the fact that collegiate athletic trainers spend extended time with athletes, along with fostering an environment of personal interaction and trust, this environment often places the athletic trainer in the role of psychosocial support.[3,4]

Barefield and McCallister[1] conducted a study to determine how often collegiate athletes receive different types of social support, the types of social support athletes need from athletic trainers and athletic training students, and how satisfied athletes are with the level of social support they receive from athletic trainers and athletic training students. The eight different types of social support utilized in this study were as follows: listening, emotional, emotional challenge, reality confirmation, task appreciation, task challenge, tangible assistance, and personal assistance support. Results showed that collegiate athletes expect and receive both listening and task appreciation from athletic trainers and athletic training students. Collegiate student athletes also reported obtaining emotional support, emotional challenge, and task challenge social support from athletic trainers and athletic training students. This provides information to collegiate athletic trainers regarding expectations of social support. This study shows that the emotional needs, not only during the injury rehabilitation phase, but also throughout the relationship built

between collegiate athletic trainers and student athletes are an important aspect of the athletic experience.[1]

Anderson and Williams[5] proposed the stress-injury model theory (Figure 1), which explains several factors that may predispose an athlete to injury. The model hypothesized that individuals with a significant stress in their lives (history of stressors), specific personality traits that can intensify this stress (personality factors), along with few coping resources (coping resources), can, when placed in a stressful situation experience increased muscle tension, narrowing of their visual field, and increased distractibility. With these factors combined, the risk for injury is greatly increased.[5,6] With the expectations of athletes regarding social support, the stress-injury model and research supporting psychological stress increasing an athletes risk of injury,[5,6,7,8,9,10,11] it is important for collegiate athletic trainers to be aware of the role they play in student athletes social support circle.

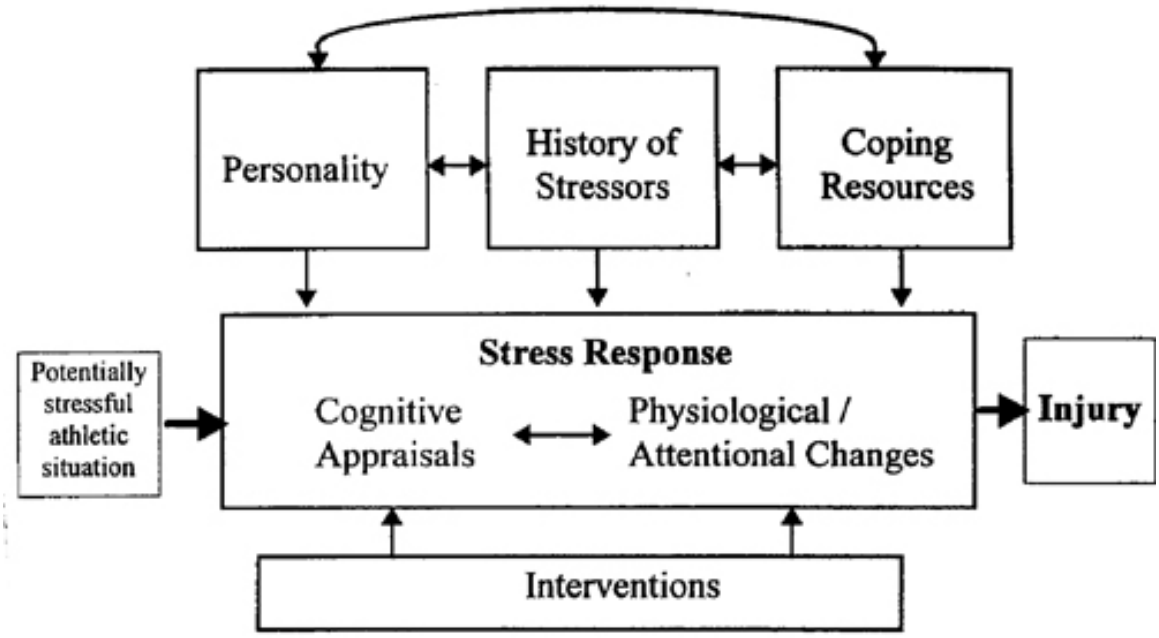

Figure 1. Anderson and Williams Stress-Injury Model Theory[5]

Research Question

What are specific factors that determine when an athlete turns to an athletic trainer for social support? Specifically, this study will look at this question and several components that could have an effect.

The components are as follows:

- To examine how likely student athletes are to confide in athletic trainers and how satisfied they are with the level of social support provided.
- To determine if the level of trait anxiety a student athlete feels plays a role on the frequency they share personal psychosocial issues in their lives with collegiate athletic trainers.
- To examine if the size of the sports team has an affect on student athletes confiding in an athletic trainer regarding psychosocial issues. For example, a swim team with 50+ athletes versus softball with a team size of 17 to 25.
- To determine if the gender of the athletic trainer has an effect on the frequency student athlete disclose psychosocial issues with them.
- To examine if athletes who are not assigned a athletic trainer feel comfortable confiding in an athletic trainer in the athletic training room.
- To determine if total time spent in the athletic training room plays a factor in student athletes discussing psychosocial issues with an athletic trainer.

Therefore, the purpose of this research is to investigate the collegiate athletic trainers' role in student athletes social support circle and if there are factors that cause a collegiate student athlete to turn to an athletic trainer for social support.

Problem Statement and Significance of Study

Athletic trainers are health care professionals who work with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions.[12] The Board of Certification's Role Delineation Study outlines that athletic trainers are expected to be competent in psychology and counseling along with being able to recognize psychological distress, counsel athletes, and make counseling referrals when necessary.

The athletic training education competencies[13] have eight content areas that express and explain specific areas in which athletic trainers are expected to be proficient. One of these areas is psychosocial strategies and referral. This competency requires athletic trainers to be able to recognize clients/patients who express unusual social, emotional, and mental behaviors.[13]

Injuries are an unavoidable component of the sports medicine world. The incidence of injuries, however, can increase with the amount of psychosocial stress the collegiate student athlete is under.[5,6,7,8] A study conducted by Johnson et al.[7] states that athletes who experience high competitive anxiety, have low coping resources, coupled with many life events, will show a significant stress response that places them at a higher risk for injury than other athletes when placed in a stressful situation like practice and competition.

Collegiate student athletes are also cited to have stressful situations amplified compared to the normal college student. Although campus psychological services are available to all students, student athletes underutilize these resources.[12,15] Pinkerton et al,[12] found that 7.0% of athletes utilize on-campus psychological services as compared to 8.5% of non-athletes. Taking the above information into consideration, knowing the extent of an athletes social support circle and where athletic trainers lie within this circle, athletic trainers can then help provide social support along with referring them to the necessary professionals.

Limitations

Due to the design of the study, following are the limitations of the study:

- When asked to rate how stressful the scenario is, high should have been very high

- The open text box for other under the list of individuals for social support, participants either did not write a name, or wrote a name that did not give any identifying information. For example, writing significant other.
- Several participants answered how likely they would be to confide in an individual for social support but failed to answer how satisfied they would be in this individual for social support.
- No definition of social support was provided

Assumptions

- Participants who completed the survey would respond to each question in a truthful manner
- Participants would read and interpret the survey questions in the intended manner

Definitions

Psychosocial Problems. Specific psychological factors that may predispose an athlete to injury, cause distraction while participating in their sport, and/or limit them from acquiring full mental and physical health.[14] Psychosocial problems discussed in this study are: Somatic trait anxiety, psychic trait anxiety, stress susceptibility, stress/pressure, anxiety, family or relationship problems, burnout, disordered eating or body image, and depression.[15]

Social Support. The perception that an individual is loved and cared for, can rely on other people for assistance, and is part of a supportive social network.[1]

Attentional and Somatic Changes. Specific physical changes experienced by an individual when placed in a situation they view as stressful. Attentional changes include increased distractibility and peripheral narrowing while somatic changes include muscle tension, fatigue, and reduced timing/coordination.[9]

Somatic Trait Anxiety. A specific form of anxiety that can have a negative impact on an individual's performance with motor tasks.[16] Descriptions of subjects with high scores include autonomic disturbances, restless, tense.[17]

Cognitive (psychic) Trait Anxiety. A specific form of anxiety that can have a negative impact on an individual's mental performance.[16] Descriptions of subjects with high scores include worrying, anticipating, lacking self-confidence.[17]

Negative Cognitive Appraisals. The fear of re-injury an athlete can experience if they are not psychologically prepared to return to competition. These thoughts can cause a significant stress response, therefore placing the athlete at a greater risk for injury.[5]

Stress Response. The core of the stress-injury model, "a bi-directional relationship between the person's cognitive appraisal(s) of a potentially stressful external situation and the physiological and attentional aspects of stress."[6] (See figure 1)

Cognitive Behavioral Stress Management (CBSM). A specific intervention developed to reduce somatic and cognitive anxiety in athletes before sport participation. Participants can be trained in somatic and cognitive based relaxation strategies, which include progressive muscle relaxation, autogenic techniques, imagery and cognitive restructuring. A final session of goal setting and event planning can also be used.[8]

Somatic and Cognitive Interventions. Based on the stress-injury model by Anderson and Williams,[5] two types interventions should be implemented. First, for the cognitive appraisal aspect of the model, interventions should be centered on changing thought patterns. Second, the attentional/psychological aspect of the model, interventions should be aimed at reducing the level of arousal and enhancing concentration.

LITERATURE REVIEW

Psychological Factors and Injury Occurrence

Athletic trainers are well versed and expect to deal with physical factors (overtraining, equipment failures, poor field conditions, weather, nature of the sport)[5] that contribute to injury. However, there are also psychological factors that can play a role in injuries.[5,6,7,8,9,10,11] Consideration and attention must be given to psychological factors to provide athletic trainers with the necessary knowledge to prevent future injury.

Anderson and Williams[5] proposed a theoretical model of stress and athletic injury. It is hypothesized that if individuals experience a significant amount of stress in their lives, have specific personality traits that exacerbate the stress response, and have few coping resources, they will be more likely to view the situation as stressful. The stress response experienced by the athlete can cause both attentional and somatic changes, which can place the athlete at greater risk for injury.[9] This model provides the foundation of this research study by providing specific stressors that can place an athlete at increased risk of injury.

Anderson and Williams'[5] stress-injury model has three major areas: history of stressors, personality, and coping resources. An athlete's history of stressors may be in direct correlation to their stress response, while personality factors and coping resources can act directly through the stress response or indirectly through an athletes history of stressors.[5] By understanding this model, athletic trainers can better understand which athletes are at greater risk of injury due to psychological factors.

History of stressors (major life event stress, daily hassles, previous injury) can have a significant impact on an athletes stress response and put them at an increased risk for injury.[5] For example, a soccer player who is worrying about a contractual obligation (i.e. major life stressor), currently experiencing relationship difficulties (i.e. daily hassle), when placed in a stressful situation (ie, conference game), the athlete could have an amplified attentional and physical deficit that could prevent the athlete from seeing or reacting to a tackle.[9] If athletic trainers understand where they fall in an athletes social support circle, they may provide the necessary type of social support to help decrease an athletes' risk of injury.

Previous injury can also play a role in placing an athlete at an increased risk for injury. An athlete who is not physically ready to return to participation increases the probably they will become reinjured. If an athlete is physically but not psychologically ready to return to participation, this detriment could cause problems due to negative cognitive appraisals.[5] With the close relationship collegiate athletic trainers build with athletes,[1,3,4] athletic trainers are in a position to help determine if an athlete is both physically and psychologically ready to return to play after sustaining an injury.

Specific personality factors (hardiness, locus of control, sense of coherence, competitive trait anxiety, achievement motivation) have been shown to increase an athletes' risk of injury.[5] These personality traits can cause some athletes to view a situation and event as stressful or they could also predispose an athlete to become less susceptible to the effect of stress.[5] Somatic and cognitive trait anxiety have also been shown as personality factors that can predispose an athlete to injury.[8,9,11,18]

Coping resources (general coping behaviors, social support system, stress management and mental skills, medication self or prescribed) are composed of a wide variety of both behaviors and social networks that can help an athlete cope with all components of life.[5] Specifically, social support has been shown to reduce the amount of anxiety an athlete feels along with decreasing the occurrence of injury.[5,6,8,16,19] Social support may not only protect the athlete against injury, it may also lessen the stressfulness of major life event stress and daily hassles along with the stress of competition.[5] Although some studies mention athletic trainers as members of an athletes social support circle, studies have not shown where they fit into this circle or how satisfied athletes are with the level of social support received from athletic trainers.

Ivarsson and Johnson[11] looked at personality factors, coping variables and stress and injury risk. They studied elite male soccer players ranging in age from 16-36 who reported practicing 2-3 times a week in addition to weekly games. Several measures were used to measure personality factors, coping variables and stress. Their results showed athletes who were injured had significantly higher levels of somatic trait anxiety and psychic trait anxiety. These athletes also portrayed higher levels of stress susceptibility and could experience higher levels of stress in potentially stressful situations. Higher levels of irritability were also found to be significantly different in injured athletes versus non-injured athletes, which could cause these athletes to experience anger and aggression in a potentially stressful situation, leading to a higher risk for injury. This relationship is an important finding for athletic trainers due to the fact that athletes' susceptibility to injury could change rapidly. Athletes who are experiencing both major life stress and

chronic daily hassles may have an increase in vulnerability to determine a minor situation to be more stressful, placing them at a greater risk for injury.

Anderson and Williams[5] also provided interventions that can help reduce injury vulnerability. The approach is two-pronged: First, to change the cognitive appraisal of stressful events, and second, to modify the physiological/attentional aspects of the stress response.[6] A study conducted by Maddison and Prapavessis[8] applied a cognitive behavioral stress management (CBSM) intervention to determine if this would help reduce the prevalence of injuries in athletes. The results showed that athletes in the intervention group missed less time due to injury along with more effective coping resources and a decrease in worry.[7] While athletic trainers do not have the necessary training to apply a CBSM intervention, by understanding their role in the athletes social support circle, athletic trainers can make the necessary referral.

Psychological Issues Unrelated to Injury

Although it has been shown that collegiate student athletes may be protected from psychological issues due to participating in regular exercise,[20] studies also show that student athletes may experience more psychological distress than non-athletes and underutilizing psychological services.[12,15] Based on this information, it is imperative that athletic trainers know their role in student athletes social support circle.

Collegiate student athletes have unique stressors compared to typical college students. Performance demands placed on athletes by coaches, fans, family members, peers and themselves can be overwhelming.[15] Additional stress is also experienced by collegiate athletes that include transitioning from high school to college, academic

burden, comparison of athletic performance and high intensity training, practice and games coupled with some athletes having genetic predisposition can lead the student athlete to experience psychological and behavioral difficulties.[15]

Mann et al[15] found that the most common non-injury psychological issues sports medicine physicians suspected in student athletes are stress/pressure (88.4%), anxiety (84.1%), family or relationship problems (73.6%), disordered eating or body image (69.7%) and depression (68.9%). General anxiety disorder (GAD) is found to be most prevalent in adolescent and early adulthood, which is the population most commonly seen in the collegiate setting.[21] Even with Sachall et al[21] reporting that GAD in athletes was no higher than the general population, collegiate student athletes still fall into the early adulthood category which athletic trainers should still be aware of. While more serious psychological issues, like drug and alcohol use, aggression/anger problems and sexual orientation were not reported as frequently in collegiate student athletes.[15]

In a literature review conducted by Pinkerton et al,[12] it was found that student athletes underutilize psychological and mental health services. Seven percent of student athletes went to these services as compared to 8.5% of non-athletes. The authors found that three factors could contribute to this: denial of emotional difficulties, counter dependence, and maintenance of social support. Athletes may feel that since they are held to a higher standard than the typical college student, their emotional stress is seen as weakness.[12] They deny to themselves, and to others, the stress they are experiencing in order to maintain their social status. Counter dependence can develop due to athletic departments providing several support services, academic advisors and tutors, specifically to student athletes. They may feel that is it more socially acceptable to utilize

these services rather than outside ones, specifically the counseling services provided for college students. Lastly, student athletes have a built in social support group, the team. While the team can provide the support needed to assist the student athlete with psychological issues, it can also deter the athlete from seeking outside psychological services by subtle or direct injunctions in times of stress.

With student athletes experiencing as much or more psychological distress than non-athletes,[12,15] along with underutilizing external mental heath services,[12] it is essential that athletic trainers be aware of the specific psychological issues student athletes could experience. This knowledge further supports the need for athletic trainers to understand their position in athletes social support circle.

Social Support and Injury Occurrence

Social support may be an important variable that could play a significant role in both reducing the rate and recovery of athletic injury.[22] While several factors contribute to athletic injury, social support could be a component that athletic trainers can utilize in order to prevent injury.

Rosenfield, Richman and Hardy[23] describe eight specific components of social support. These components, along with their definitions are listed below:

1. Listening Support: the perception that an other is listening without giving advice or being judgmental;
2. Emotional Support: the perception that an other is providing comfort and caring and indicating that she or he is on the support recipient's side;
3. Emotional Challenge: the perception that an other is challenging the support recipient to evaluate his or her attitudes, values, and feelings;
4. Reality Confirmation: the perception that an other, 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;

5. Task Appreciation: the perception that an other is acknowledging the support recipient's efforts and is expressing appreciation for the work she or he does;
6. Task Challenge: the perception that an other 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;
7. Tangible Assistance: the perception that an other is providing the support recipient with financial assistance, products and/or gifts;
8. Personal Assistance: the perception that an other is providing services or help, such as running an errand or driving the support recipient somewhere.

While most of these social support types can be provided by individuals who are concerned about the athlete, task appreciation and task challenge support can only be provided by individuals who have expertise in the athletes specific sport.[23] A study conducted by Barefield and McCallister[1] looked specifically at how often athletes receive the eight types of social support, which types athletes need and expect to receive from athletic trainers and their satisfaction with the social support they receive. It was found that athletes expect to receive mostly listening and task appreciation support from their athletic trainer, specifically during injury rehabilitation. While their findings provide important information regarding athletes social support needs during rehabilitation, it doesn't provide insight on where collegiate athletic trainers fall in student athletes social support circle.

With so many different components of social support, implementing it can be a complex process.[1] Sarason, Sarason and Pierce[24] report that in certain situations, along with the individual's specific needs and stress experienced at that time, certain types of social support may be more beneficial than others. Recipients of social support must also perceive the exchange to be adequate support in order achieve the benefits.[22,24] Despite the complexity of providing social support, the health benefits of social support may outweigh this difficulty.[22,25]

In a literature review conducted by Udry,[22] it was shown that social support in athletes' lives can reduce the occurrence of injury. Two different models have been proposed as to how this occurs: the direct-effects model, in which social support has positive effects regardless if the individual is experiencing stress and the buffering model, which suggests that social support only provides positive benefits for individuals who experience high stress.

While there are several points that prove more research is needed in how social support affects the occurrence of injuries, taking the literature as a whole shows that social support can reduce the occurrence of injuries.[22] Lavallee and Flint[19] wanted to see if perceived social support is an indicator of athletic injury. Forty-two male varsity football players and 13 male varsity rugby players participated in the study. While social support alone was not significant in lowering the rate of injury, it lowered the degree of depression/dejection. This result is significant due to other studies findings reporting that depression/dejection is related to injury rate. It was also found that athletes who reported higher levels of social support experienced lower levels of tension/anxiety. This is also significant due to Lavallee and Flint[19] finding that tension/anxiety had a correlation with athletic injury.

Sport Anxiety Scale – 2

The Sport Anxiety Scale – 2 (SAS – 2)[26] is a measure of both cognitive and somatic trait anxiety in the sport performance setting.[27] Several studies have used the Sport Anxiety Scale (SAS)[7,8,18] which has since been revised to the SAS – 2 due to findings that the original SAS was unable to be reproduced in child populations and there

were several items in the scale that produced contradictory factor loadings in adult populations. The SAS – 2 measures three factors; somatic anxiety, worry and concentration disruption and was chosen for this research study due to the test specifically being directed at individuals who participate in sports. Exploratory factor analyses in the college sample are as follows, somatic with worry = .55, somatic with concentration disruption = .35, and worry with concentration disruption = .47. Cronbach's α served as the measure for internal consistency are .84 (CI = .82 – 85) for somatic, .89 (CI = .87 – .90) for worry and .84 (CI = .82 – 85) for concentration disruption. Test-retest coefficients were .76 for somatic, .90 for worry, .85 for concentration disruption, and .87 for total score.

METHODS

Participants

Participants were from Division 2, NAIA and MIAA universities that were chosen through convenience for this study. Athletes participating in football, women's volleyball, men's and women's golf, men's and women's swimming and diving, men's and woman's soccer, men's and women's basketball, men's and women's track and field, men's and women's cross country, softball, baseball, dance and cheerleading were included. These sports were chosen to include all sports offered at the three schools. There were no restrictions on gender, age, or years spent at the university.

Measurements

I designed the Athlete Social Support Circle Survey (ASSCS) to encompass the stress-injury model and athletes that may fall into that model. This electronic survey was also designed to explore factors that may cause an athlete to confide in an athletic trainer for social support and where athletic trainers fall in student athletes social support circle. See Appendix A for the complete survey.

Demographics and Scenario. The first component of the ASSCS is a demographic section. Participants were asked to select the number of years they have been a collegiate student athlete (scale of 1-6 years). Additionally, they were asked to self report their sport, how many teammates on their team, their age and their gender (male or female). Following the demographic section, participants were presented with one of two scenarios. Both scenarios contained the same information except that one included an

injury to the shoulder that had started to hurt. The injury was included in only one scenario to determine if an injury situation would increase the participants likelihood of confiding in athletic trainers for social support. After the participants read the scenario, they were asked to rate how stressful they viewed the situation (1-5 scale, 1 = Very Low, 5 = High).

List of Individuals for Social Support. After participants read and responded to the scenario, they were given a list of individuals to turn to for social support. Based upon the scenario, and provided list of individuals, participants were asked to respond to two questions using a Likert scale of 1-5 (1 = Very Unlikely, 5 = Very Likely). The first question asked how likely they would be to confide in the individuals on the provided list. The second question asked how likely they were to be satisfied with the selected individual's level of support. Options on the list include; parents, siblings, friends, teammates, coaches, athletic trainers, teachers, religious support group, other and I would not turn to someone for social support. This list was pulled from a study conducted by Smith, Smoll and Ptacek[16]. I added other and would not turn to someone for social support to provide these options in the event a participant preferred these selections.

Sport Anxiety Scale – 2 (SAS – 2). The SAS – 2[26] was used to determine the level of somatic anxiety, worry and concentration disruption of the participants based upon how they feel before and during sport participation. The scale consists of 15 questions divided into 3 sections, which includes 5 questions in each section. Each question relates to either somatic anxiety, worry or concentration disruption. After the participant competed the SAS – 2, I separated the questions to examine the results. Questions 2, 6, 10, 12, 14 relate to somatic anxiety, questions 3, 5, 8, 9, 11 relate to worry

and questions 1, 4, 7, 13, 15 relate to concentration disruption. Exploratory factor analyses in the college sample are as follows, somatic with worry = .55, somatic with concentration disruption = .35, and worry with concentration disruption = .47. Cronbach's α served as the measure for internal consistency are .84 (CI = .82 – 85) for somatic, .89 (CI = .87 – .90) for worry and .84 (CI = .82 – 85) for concentration disruption. Test-retest coefficients were .76 for somatic, .90 for worry, .85 for concentration disruption, and .87 for total score.

Injury Demographics. In the final section of the survey, participants were asked to provide information regarding the severity of injury(ies) they have received. I included both acute and chronic injuries for my study and a definition[28] of both were provided to ensure each participant understood the extent of each injury. If the participants selected that they had sustained an acute injury, they were directed to three more questions; how long were you/have you been out of sport participation, did you seek treatment in the athletic training room and how long did you seek treatment in the athletic training room. If the participant selected that they had sustained a chronic injury, they were directed to another question; how many days a week did/do you visit the athletic training room for treatment regarding your chronic injury. Next, the participants were asked if a specific athletic trainer is assigned to their sport. If they answered yes, participants were directed to questions asking the gender of their athletic trainer and how many years they have worked with that specific athletic trainer. If participants answered no, they were directed to a question regarding if they feel comfortable confiding in one of the athletic trainers in the athletic training facility at their school for social support.

Procedure

Before the ASSCS was sent to the participants, IRB approval was obtained (10/4/15, IRB-FY2016-17). Ten athletes at a local Division 2 university were given a paper copy of the survey and were asked to look for spelling and grammar errors and if the survey was easy to understand. Each athlete was asked to make edits and suggestions to the ASSCS. Each participant reported the ASSCS was easy to understand and one made the suggestion that players should be changed to teammate, which was applied before the ASSCS was opened. A pilot study was then conducted with eleven local Division 1 swimming and diving athletes to ensure the survey was measuring the intended components. This team was chosen out of convenience and due to having both male and female athletes. Data analysis was ran with the results from the pilot study and it was determined that the survey was accurately measuring all components correctly. Due to a discrepancy with the pilot study and the final survey, the data collected from the pilot study was unable to be included in the final data analysis.

The head athletic trainer at each selected university was contacted to ask for assistance emailing the student athletes the survey. The email contained an explanation of the survey and a hyperlink directing the participants to the survey in Qualtrics. The first page of the survey was the waiver of consent (Appendix B), which informed each participant that by completing and submitting the survey, they were giving their permission for their responses to be used in the study. Respondents were informed that their participation was voluntary and they could exit the survey at any time.

The survey was open for a total of 2 weeks, with four reminder emails (4 days, 8 days, 12 days and 8 hours) were sent throughout the duration of the survey. Each

reminder email contained the description of the survey, the hyperlink to the survey, and a reminder of how much longer the survey was open.

Statistical Analysis

Statistical analysis was conducted using SPSS 22.0. Descriptive statistics including means, standard deviation, minimum, maximum, and percent were computed on gender, age, years as a collegiate athlete, number of teammates on the participants' roster this year, and sport played. Descriptive statistics was also used to determine where athletic trainers fall in athletes social support circle, how likely the participants would be to confide in an individual for social support, and how satisfied participants are with the individual's level of social support.

To answer the research question of what specific factors determine when an athletes turns to an athletic trainer for social support, a hierarchical multiple linear regression was analyzed. The dependent variable was how likely would you be to confide in an athletic trainer for social support. Model one consisted of years as a collegiate athlete, teammates on the roster, age and gender of the participants. Model two consisted of gender of the athletic trainer assigned to the participants sport, years spent with this specific athletic trainer, and if the participants were not assigned a specific athletic trainer, would they feel comfortable confiding in an athletic trainer in the athletic training room at their school for social support. Model three consisted of the three components of the SAS-2 somatic anxiety, worry and concentration disruption. Model four consisted of how long a participant was out of participation if they sustained an acute injury, how long did they seek treatment in the athletic training room for the acute injury, and how many

days a week does/did the participant seek treatment if they sustained a chronic injury. Model five consisted of how likely the participant would be satisfied with the level of social support provided by an athletic trainer.

RESULTS

First, demographics and frequencies of the participants and the research question, where do athletic trainers fall in athletes social support circle will be presented. Second, the results of the hypothesis analysis, a hierarchical multiple linear regression, will examine the prediction likelihood of several variables. Several tables will also be presented regarding the information stated above.

Participants

One hundred and six participants submitted the survey, however, 8 participants were deleted due to missing data. Of the final pool of participants (N=98), 37 (37.8%) were male and 61 (62.2%) were female. Participants reported an age of 17 to 23 years (M = 19.74, SD = 1.34). In relation to how many years the participants' have been a collegiate athlete, the ranged reported was 1 to 5 years (M = 2.32, SD = 1.19). Participants also indicated how many teammates are on the team's roster this year, which ranged from 3 to 120 (M = 29.91, SD = 24.47). Out of the sports solicited for the study, the following were reported: 12 (12.2%) baseball, 6 (6.1%) basketball, 1 (1%) cheerleading, 6 (6.1%) cross country, 8 (8.2%) football, 4 (4.1%) golf, 13 (13.3%) softball, 9 (9.2%) swimming and diving, 2 (2.0%) tennis, 7 (7.1%) track and field, and 15 (15.3%) volleyball. Demographic frequencies using the split data regarding age, years as a collegiate athlete and number of teammates can be found in Table 1. Demographic frequencies using split data pertaining to sport played can be found in Table 2.

Table 1. Demographic Frequencies of Participants

	Variable*	Mean	Std. Deviation	Minimum	Maximum
No Injury Prime+	AGE	19.73	1.37	18	23
	YEARS_PLAY	2.24	1.12	1	4
	TEAMMATES	27.92	21.65	5	100
Injury Prime+	AGE	19.77	1.32	17	22
	YEARS_PLAY	2.24	1.27	1	5
	TEAMMATES	32.06	27.26	3	120

***** Key regarding variable names, see Appendix C
+No Injury Prime includes participants who received the scenario without an injury
+Injury Prime includes participants who received the scenario with an injury

Table 2. Demographic Frequencies of Sports

	Variable	Attribute	Frequency*	Percent
No Injury Prime	Gender	Male	16	31.4%
		Female	35	68.6%
	Sport	Baseball	4	7.8%
		Basketball	3	5.9%
		Cross Country	4	7.8%
		Football	3	5.9%
		Golf	4	7.8%
		Soccer	10	19.6%
		Softball	6	11.8%
		Swimming and Diving	6	11.8%
		Track and Field	4	7.8%
		Volleyball	7	13.7%
Injury Prime	Gender	Male	21	44.7%
		Female	26	55.3%
	Sport	Baseball	8	17.0%
		Basketball	3	6.4%
		Cheerleading	1	2.1%
		Cross Country	2	4.3%
		Football	5	10.6%
		Soccer	5	10.6%
		Softball	7	14.9%
		Swimming and Diving	3	6.4%
		Tennis	2	4.3%
		Track and Field	3	6.4%
		Volleyball	8	17.0%

***** n = 51 for the no injury prime group. n = 47 for the injury prime group.

Data Analysis

Descriptive frequencies were calculated on the individuals participants would turn to for social support. Data was split to analyze participants' responses in each of the different scenario groups. With how likely would you be to confide in this individual for social support, in the no injury group, athletic trainers ranked number 6 behind parents, friends, teammates, siblings, and coaches, (M = 2.59, SD = 1.33). In the injury group, athletic trainers moved to number 5 behind parents, friends, teammates, and siblings, (M = 2.77, SD = 1.20; Table 3). With how likely are you to be satisfied with their level of social support, in the no injury group, athletic trainers ranked number 6 behind parents, friends, teammates, siblings, and coaches, (M = 2.89, SD = 1.18). In the injury group, athletic trainers were number 5 after friends, parents, teammates, and siblings, (M = 3.05, SD = 1.09; Table 4).

Descriptive frequencies were analyzed to examine which ranking the majority of participants pick regarding athletic trainers for social support. With the likelihood of confiding in an athletic trainer, in the no injury prime group, most participants chose either undecided (21.6%) or likely (21.6%). In the injury prime group, most participants chose undecided (36.2%; Table 5). With the likelihood of participants being satisfied with the level of social support provided by athletic trainers, in the no injury prime group, the majority of participants chose undecided (41.3%). In the injury prime group, most participants chose undecided (39.5%; Table 6).

Table 3. Likelihood of Confiding in Individual for Social Support

	Variable	Mean	Std. Deviation	Min*	Max*	Missing
No Injury Prime	Parents	4.31	0.95	2	5	0
	Siblings	3.29	1.47	1	5	0
	Friends	4.20	0.90	2	5	0
	Teammates	4.12	0.99	1	5	0
	Coaches	2.82	1.42	1	5	0
	Athletic Trainers	2.59	1.33	1	5	0
	Teachers	2.04	1.23	1	5	0
	Religious Support Group	2.47	1.36	1	5	0
	Other#	2.36	1.74	1	5	37
	None+#	1.76	1.04	1	4	14
Injury Prime	Parents	4.19	1.08	1	5	0
	Siblings	3.45	1.35	1	5	0
	Friends	4.06	1.09	1	5	0
	Teammates	3.96	1.25	1	5	0
	Athletic Trainers	2.77	1.20	1	5	0
	Coaches	2.53	1.18	1	5	0
	Teachers	1.94	1.03	1	5	0
	Religious Support Group	2.39	1.33	1	5	1
	Other#	2.38	1.62	1	5	31
	None+#	2.22	1.95	1	5	10

* Minimum and Maximum values based on a 5 point Likert scale: 1 = Very Unlikely, 2 = Unlikely, 3 = Undecided, 4 = Likely, 5 = Very Likely
+ The question stated, "I would not turn to someone for social support"
# Participants were not required to answer these, which accounts for the missing values

I used a hierarchical linear regression to understand the relationship between confiding in an athletic trainer as the dependent variable and demographic, personality and situational variables as the independent variables. Predicting variables were divided into a total of 5 models. Model 1 consisted of YEARS_PLAY, TEAMMATES, AGE and GENDER. These variables where grouped in the first step to control for demographic information about the participant. Model 2 included GENDER_ATC, YEARS_ATC, and COMFY_ATC, which were placed together because each relate to questions about athletic trainers.

Table 4. Likelihood of Satisfaction in Individual with Level of Social Support

	Variable	Mean	Std. Deviation	Min*	Max*	Missing
No Injury Prime	Parents	4.22	0.89	2	5	5
	Siblings	3.50	1.43	1	5	5
	Friends	4.02	0.94	1	5	4
	Teammates	3.85	0.98	1	5	4
	Coaches	3.20	1.34	1	5	5
	Athletic Trainers	2.89	1.18	1	5	5
	Teachers	2.61	1.11	1	5	5
	Religious Support Group	2.87	1.26	1	5	6
	Other#	2.14	1.23	1	5	37
	None+#	2.07	1.25	1	4	22
Injury Prime	Parents	4.19	1.05	1	5	4
	Siblings	3.60	1.13	1	5	4
	Friends	4.23	0.65	3	5	4
	Teammates	3.77	1.07	1	5	4
	Athletic Trainers	3.05	1.09	1	5	4
	Coaches	2.98	1.01	1	5	4
	Teachers	2.38	1.15	1	5	5
	Religious Support Group	2.78	1.29	1	5	6
	Other#	2.40	1.27	1	5	27
	None+#	1.81	1.17	1	5	22

* Minimum and Maximum values based on a 5 point Likert scale: 1 = Very Unlikely, 2 = Unlikely, 3 = Undecided, 4 = Likely, 5 = Very Likely
+ The question stated, "I would not turn to someone for social support"
# Participants were not required to answer these, which accounts for the missing values

In the next step, SOM_ANX, WORRY_ANX, and CD_ANX were grouped together as personality variables from the SAS – 2. In regards to the amount of time spend in the athletic training room for treatment regarding an injury, SPORT_PAR, LONG_ATR and TREAT_ATR were grouped together in model 4. Finally, SAT_SS_ATC was placed in model 5 to see if this variable would be a significant predictor. A key with an explanation of the predictors can be found in Appendix C.

Table 5. Frequencies and Percent for Confiding in Athletic Trainers for Social Support

	Variable	Frequency	Percent
No Injury Prime	Very Unlikely	15	29.4%
	Unlikely	10	19.6%
	Undecided	11	21.6%
	Likely	11	21.6%
	Very Likely	4	7.8%
Injury Prime	Very Unlikely	9	19.1%
	Unlikely	9	19.1%
	Undecided	17	36.2%
	Likely	8	17.0%
	Very Likely	4	8.5%

Table 6. Frequencies and Percent for Satisfaction in Athletic Trainers for Social Support

	Variable	Frequency	Percent
No Injury Prime	Very Unlikely	8	17.4%
	Unlikely	6	13.0%
	Undecided	19	41.3%
	Likely	9	19.6%
	Very Likely	4	8.7%
Injury Prime	Very Unlikely	5	11.6%
	Unlikely	6	14.0%
	Undecided	17	39.5%
	Likely	12	27.9%
	Very Likely	3	7.0%

In the no injury prime group, model 2 was found to be significant along with model 5. In the injury prime group, model 5 was found to be significant. Several variables were found to be significant in predicting what factors determine when an athletes turns to an athletic trainer for social support. In the no injury prime group, COMFY_ATC was found to be significant (b = -1.74, $t(38)$ = -4.71, p = <.001), which indicates that the less comfortable an athlete is in confiding in an athletic trainer for social support, the less likely they are to confide in one. Also significant was SAT_SS_ATC (b = 0.79, $t(31)$ = 7.20, p = <.001). In the injury prime group,

SAT_SS_ATC was found to be a significant predictor, (b = 0.96, $t(26)$ = 7.00, p = <.001; Table 7). SAT_SS_ATC being a significant predictor in both the no injury prime and the injury prime group indicates that the more satisfied an athlete is with the level of social support from an athletic trainer, the more likely they are to confide in one for social support.

Table 7. Predictors and Model Results

	Predictor*	***b***	***t***	***p***	**Model Statistic**
No Injury Prime	YEARS_PLAY	-0.31	-1.09	0.28	$F(4,41) = 0.33$,
	TEAMMATES	-0.003	-0.28	0.78	$p = 0.85$, $R^2 = 0$ .03
	AGE	0.23	0.99	0.33	
	GENDER	0.02	0.04	0.97	
	GENDER_ATC	-0.07	-0.27	0.79	$\Delta F(3,38) = 8.18$,
	YEARS_ATC	-0.03	-0.13	0.90	$p = <.001$,
	COMFY_ATC	-1.74	-4.71	<0.001	$R^2 = 0.41$
	SOM_ANX	0.01	0.10	0.92	$\Delta F(3,35) = 0.62$,
	WORRY_ANX	-0.06	-1.25	0.21	$p = 0.61$, $R^2 = 0.44$
	CD_ANX	0.04	0.47	0.64	
	SPORT_PAR	0.01	0.02	0.99	$\Delta F(3,32) = 0.86$,
	LONG_ATR	0.02	0.09	0.93	$p = 0.47$, $R^2 = 0.48$
	TREAT_ATR	0.12	1.39	0.17	
	SAT_SS_ATC	0.79	7.20	<0.001	$\Delta F(1,31) = 51.76$, $p = <.001$, $R^2 = 0.81$
	Predictor	***b***	***t***	***p***	**Model Statistic**
Injury Prime	YEARS_PLAY	0.18	0.54	0.59	$F(4,36) = 0.52$,
	TEAMMATES	-0.001	-0.06	0.95	$p = 0.72$, $R^2 = 0.06$
	AGE	-0.18	-0.55	0.59	
	GENDER	0.43	0.85	0.40	
	GENDER_ATC	0.49	1.43	0.16	$\Delta F(3,33) = 0.52$,
	YEARS_ATC	0.13	0.59	0.56	$p = 0.20$, $R^2 = 0.18$
	COMFY_ATC	0.03	0.05	0.96	
	SOM_ANX	-0.08	-0.80	0.43	$\Delta F(3,30) = 0.56$,
	WORRY_ANX	0.05	0.79	0.43	$p = 0.64$, $R^2 = 0.22$
	CD_ANX	-0.04	-0.34	0.73	
	SPORT_PAR	-0.46	-1.16	0.25	$\Delta F(1,27) = 0.72$,
	LONG_ATR	0.39	1.16	0.26	$p = 0.56$, $R^2 = 0.28$
	TREAT_ATR	0.06	0.74	0.47	
	SAT_SS_ATC	0.96	7.00	<0.001	$\Delta F(1,26) = 48.87$, $p = <.001$, $R^2 = 0.75$

* Key regarding predictors, see Appendix C

DISCUSSION

The inspiration for my study came from two research studies that looked at social support and athletes. Rosenfield et al[23] looked at athletes social support network and the types of social support provided by each individual. Unfortunately, Rosenfield et al[23] did not include athletic trainers. Barefield and McCallister[1] looked at the different types of social support athletic trainers provide to athletes, but they did not look at the structure of athletes social support circle. While both of these studies provide us with important information regarding social support and athletes, neither looks at the athletes social support circle as a whole and where athletic trainers fit.

This chapter focuses on explaining the reasoning behind each component of the survey, discussing results to specific research questions, and recommendations for future research. The main research question of my study is, what are specific factors that determine when an athlete turns to an athletic trainer for social support? The predictors of my study are the likelihood of an athlete to confide in an athletic trainer for social support and their level of satisfaction, level of trait anxiety, size of sports team, gender of the athletic trainer, athletes who are not assigned an athletic trainer, and total time spent in the athletic training room. This section is organized and discussed based on the structure of the ASSCS survey.

Discussion of the Survey and Data

When writing my scenario for the ASSCS, I followed the stress-injury model (Figure 1) developed by Anderson and Williams.[5] By using an example scenario by

Ivarsson et al,[9] I was able to structure the scenario to fit the typical day of a collegiate student athlete. I added an injury prime component due to athletes typically seeking out athletic trainers when they are injured. I wanted to see if introducing an injury would change how likely the participants would be to confide in an athletic trainer. The majority of the participants found that the scenarios presented as stressful, with 46.9% of participants rating it a 4 (somewhat high) in the no injury prime group and 54.3% of participants rating it a 4 (somewhat high) in the injury prime group. These numbers are concerning due to literature showing the more stressed an athletes is, the higher likelihood athletic injury could occur. [5,6,7,8,9,10,11]

Once the participants read the scenario, they were asked to rate how likely they would be to confide in an individual for social support and how likely they were to be satisfied with this individual's social support. Participants placed athletic trainers below four individuals (Parents, friends, teammates, coaches) in the no injury prime group. It was also shown that the injury prime seemed to have an affect on athletes social support circle. Athletic trainers went from spot 6 (confide: $M = 2.56$, satisfied: $M = 2.89$) to 5 (confide: $M = 2.77$, satisfied: $M = 3.05$), moving ahead of coaches, in the injury prime group. While it makes sense that an athlete would be more likely to confide in an individual they have spent significant time with, the results showing that athletes are more likely to confide in an athletic trainer for social support with an injury is beneficial. This allows athletic trainers to realize the impact they can have on an injured athletes regarding social support.

While this study showed that athletic trainers were rated lower than several individuals for social support, it is still important for athletic trainers to understand an

athletes social support circle. Social support comes in several different forms, which can be provided by a number of different people.[1,22,23] By being aware of who athletes turn to for social support, athletic trainers can encourage athletes to reach out to these individuals. The finding of the more satisfied an athletic is with an athletic trainer's level of social support, the more likely they are to confide in them lines up with the definition of social support. In order for an individual to gain the positive affects of social support, the recipient must feel that the intention of the provider of social support is genuine and intended to enhance their well-being.[1,22,23] Athletes expect to receive mostly listening and task appreciation support, specifically during injury rehabilitation.[1] An athletic trainer can provide this by listening to an athlete talk about their day during rehabilitation while also praising them for the hard work they are putting into their exercises.

The SAS-2 was chosen for this study due to it specifically being directed at individuals who participate in sports and that its direct correlation with the personality component of the stress-injury model.[5,6] I chose to examine the level of somatic and cognitive anxiety in the participants due to research showing that athletes who experience these traits have a higher likelihood of athletic injury.[5,6,8,16,19,27] In both the no injury prime and the injury prime group, somatic anxiety, worry and concentration disruption were not found to be significant predictors. This finding could be due to athletes feeling more comfortable confiding in teammates or coaches regarding stress surrounding their sport. Since coaches and teammates spend a significant amount of time together performing the sport they enjoy, this could create closeness and trust that builds an avenue to express feelings of stress before practice or a game. Coaches and teammates

understand the sport and would be better equipped to provide the athlete with the social support needed.

History of stressors[5,6] was incorporated into my study by asking if participants had ever sustained an acute or chronic injury. Due to the close relationship athletes build with athletic trainers,[1,2] I wanted to see if the longer athletes spent in the athletic training facility performing rehabilitation would impact how likely the athlete would be to confide in an athletic trainer for social support. In this participant group, neither the no injury prime or the injury prime groups, indicated an injury (acute or chronic) was found to be a significant predictor. These results do not align with research conducted by Moulton et al[3] who found that while athletes disclose problems related to injuries, they also share personal issues about themselves to athletic trainers. Athletic trainers felt that this occurred due to the unique relationship built with the athletes they work with.[3] The results from this study could be due to asking the participants to recall a previous injury, which they may not be able to adequately remember. Through their athletic career, participants could have gone through different athletic trainers, which means a different athletic trainer could have performed rehabilitation on the participant.

In the final section of my survey, participants were asked for the gender of their athletic trainer, years spent with this specific athletic trainer and if they were comfortable confiding in an athletic trainer in the athletic training facility if their sport did not have one assigned to them. Both gender and years spent with the athletic trainer were found not to be significant. In the no injury group, being comfortable in an athletic trainer in the athletic training facility was found to be a significant predictor ($p = <.001$). However, in the injury group, this predictor was not found to be significant. Participants being

comfortable in confiding in an athletic trainer ties in with the definition of social support. By feeling that the social support provided is genuine and intended to enhance the participants well-being,[1,22,23] they would feel more comfortable confiding in an athletic trainer for social support. Due to participants randomly assigned to either scenario, it could be that more participants who do not have an athletic trainer assigned to their sport were placed in the no injury prime group, which could account for the discrepancy in the results.

Conclusion

This study found that athletes do include athletic trainers in their social support circle. While athletic trainers were ranked lower than several individuals, this study begins to define an athletes social support circle. With this understanding, and having adequate knowledge of the stress-injury model,[5,6] athletic trainers can be a key component in getting athletes who fit the model the help they need. Whether it's by providing social support themselves, encouraging them to seek out other individual's for social support, or referring them to mental health professionals.

It was also found that how satisfied and comfortable an athlete is with the social support provided by an athletic trainer, the more likely they are to confide in them for social support. With this finding lining up with the definition of social support,[1,22,23] athletic trainers can realize the impact they can have on the athletes they spend so much time with. By providing the listening and task appreciation support,[1] they can begin to lay the foundation of social support that could help decrease the athletes risk of injury.

It is my hope that with this study, athletic trainers can realize the impact their actions can have on athletes' lives. This impact can enhance the athletes well being along with helping an athlete to realize that they are more than just an athlete or an injury to the athletic trainer. Athletes, just like everyone, have struggles throughout their lives and athletic trainers can provide them with social support to help lessen the anxiety and stress that comes with being a collegiate athlete, and helping to enhance the athletic experience.

Future research should look at what specific psychosocial problems athletes come to athletic trainers to for social support. It should also be examined why an athlete would come to an athletic trainer for social support. This idea could be examined by looking at characteristics an athlete looks for in an athletic trainer to feel comfortable seeking social support, do athletic trainers need to ask the athlete questions about their day in order for the athlete to confide in them, and what athletic trainers can do to make an athlete feel more comfortable confiding in them for social support.

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APPENDICES

Appendix A. Survey Instrument

Athlete Social Support Circle Survey

Below are questions regarding demographics. Please answer each question as honestly as you can. There are no right or wrong answers.

How many years have you been a collegiate athlete?

a. One year
b. Two years
c. Three years
d. Four years
e. Five years
f. Six years

What sport do you participate in?

_____

How many teammates are on your team's roster this year?

_____

Please type in your age in the text box below

_____

What is your gender?

a. Male b. Female

Please read the scenario below carefully and answer the following questions as honestly as you can. There are no right or wrong answers.

Imagine this scenario: You wake up and immediately begin to think about everything you have to do today. You not only have an exam, you have a lunch date with your significant other, who you've been fighting with for the last few months, and the big conference game is today. As you stretch and look at the clock, you realize you over slept and will be late to your exam. You rush around your apartment, grab a quick breakfast, and run to class. You arrive at your exam, 5 minutes late, and the teacher proceeds to lecture you about promptness. You get your exam and sit down, only to realize that through all the chaos of the morning, you can't seem to remember a single thing. Frustrated, you complete the exam and head to lunch. While walking there, you receive a text from your significant other saying they have to cancel lunch. You decided to call, end up getting into a disagreement, and the call is ended without resolving the issue. By this time it's time to start preparing for the big game. The team you are competing against is the big

rival school and the stands will be packed with fans. Your coach has been placing a lot of pressure on the team this week and the game has been weighing heavily on your mind. After a competitive game/match/meet, you end up losing.

Imagine this scenario: You wake up and immediately begin to think about everything you have to do today. You not only have an exam, you have a lunch date with your significant other, who you've been fighting with for the last few months, and the big conference game is today. As you stretch and look at the clock, you realize you over slept and will be late to your exam. You rush around your apartment, grab a quick breakfast, and run to class. You arrive at your exam, 5 minutes late, and the teacher proceeds to lecture you about promptness. You get your exam and sit down, only to realize that through all the chaos of the morning, you can't seem to remember a single thing. Frustrated, you complete the exam and head to lunch. While walking there, you receive a text from your significant other saying they have to cancel lunch. You decided to call, end up getting into a disagreement, and the call is ended without resolving the issue. By this time it's time to start preparing for the big game. The team you are competing against is the big rival school and the stands will be packed with fans. Your coach has been placing a lot of pressure on the team this week and the game has been weighing heavily on your mind. After a competitive game/match/meet, you end up losing. You also realize that your shoulder has started to hurt and is getting worse.

Regarding the situation above, please rate how stressful you view it.

a. Very Low
b. Somewhat Low
c. Undecided
d. Somewhat High
e. High

Below is a list of individuals who might provide social support. Regarding the situation above, please rate how likely you would be to confide in them. Also, please rate how likely you are to be satisfied with their level of social support.

	How likely would you be to confide in this individual for social support?					How likely are you to be satisfied with their level social support?				
	Very Unlikely	Unlikey	Undecided	Likely	Very Likely	Very Unlikely	Unlikely	Undecided	Likely	Very Likely
Parents	○	○	○	○	○	○	○	○	○	○
Siblings	○	○	○	○	○	○	○	○	○	○
Friends	○	○	○	○	○	○	○	○	○	○
Teammates	○	○	○	○	○	○	○	○	○	○
Coaches	○	○	○	○	○	○	○	○	○	○
Athletic trainers	○	○	○	○	○	○	○	○	○	○
Teachers	○	○	○	○	○	○	○	○	○	○
Religious support group	○	○	○	○	○	○	○	○	○	○
Other	○	○	○	○	○	○	○	○	○	○
I would not turn to someone for social support	○	○	○	○	○	○	○	○	○	○

Reactions to playing sports

Many athletes get tense or nervous before or during games, meets or matches. This happens even to pro athletes. Please read each question. Then, circle the number that says how you USUALLY feel before or while you compete in sports. There are no right or wrong answers. Please be as truthful as you can.

Before or while I compete in sports

	Not at all	A little bit	Pretty much	Very Much
It's hard to concentrate on the game	○	○	○	○
My body feels tense	○	○	○	○
I worry that I will not play well	○	○	○	○
It's hard for me to focus on what I am supopse to do	○	○	○	○
I worry I will let others down	○	○	○	○

Before or while I compete in sports

	Not at all	A little bit	Pretty much	Very much
I feel tense in my stomach	○	○	○	○
I lose focus on the game	○	○	○	○
I worry that I will not play my best	○	○	○	○
I worry that I will play badly	○	○	○	○
My muscles feel shakey	○	○	○	○

Before or while I compete in sports

	Not at all	A little bit	Pretty much	Very much
I worry that I will mess up during the game	○	○	○	○
My stomach feels upset	○	○	○	○
I cannot think clearly during the game	○	○	○	○
My muscles feel tight because I am nervous	○	○	○	○
I have a hard time focusing on what my coach tells me to do	○	○	○	○

Injuries are a common occurrence for athletes. An injury in this study is defined as any musculoskeletal trauma that occurs during a season. Below are questions regarding two different types of injuries that can occur. Please read each section carefully and answer as honestly as you can.

An acute injury is defined as physical injury or sound that is produced by an external or internal force. During your college career, have you sustained an acute injury?

a. Yes b. No

How long were you/have you been out of sport participation?

a. 1-7 days
b. 1 Week-1 Month
c. More than 1 month

Did you seek treatment in the athletic training room?

a. Yes b. No

How long did you seek treatment in the athletic training room?

a. 1-7 Days
b. 1 Week-1 Month
c. More than 1 Month

A chronic injury is defined as an injury that results from overuse with repetitive dynamics of running, throwing, or jumping. Have you ever sustained a chronic injury?

a. Yes b. No

How many days a week did/do you visit the athletic training room for treatment regarding your chronic injury?

a. 1 Day
b. 2 Days
c. 3 Days
d. 4 Days
e. 5 Days
f. 6 Days
g. 7 Days

Do you have a specific athletic trainer assigned to your sport?

a. Yes b. No

What gender is your athletic trainer?

a. Male b. Female

How many years have you been with this athletic trainer?

a. 1 Year
b. 2 Years
c. 3 Years
d. 4 Years
e. 5 Years
f. 6 Years

Would you feel comfortable confiding in one of the athletic trainer in an athletic training room at your school for social support?

a. Yes b. No

Appendix B. Waver of Consent

Consent to Participate in a Research Study
Missouri State University
College of Health and Human Services

Student Athletes And Factors That Determine Their Social Support Circle
Principle Investigator: Tona Hetzler, EdD, ATC
Primary Study Contact: Liz Gelhaus, BS, ATC
Co-Principal Investigator: Erin Buchanan, PhD
Co-Principal Investigator: David Lutz, PhD

Introduction

You have been asked to participate in a research study. Before you agree to participate in this study, it is important that you read and understand the following explanation of the study and the procedures involved. If you have any questions about the study or your role in it, be sure to ask the investigator, Liz Gelhaus, the person responsible for this study, will answer them for you. You may contact the investigator(s) at:

Liz Gelhaus, BS, ATC
gelhaus399@missouristate.edu
509-879-1583
Tona Hetzler, PhD, ATC
tonahetzler@missouristate.edu
417-836-8553

By completing and submitting the survey, you are giving us your permission to be involved in this study. Taking part in this study is entirely your choice. If you decide to take part but later change your mind, you may stop at any time. If you decide to stop, you do not have to give a reason and there will be no negative consequences for ending your participation.

Purpose of this Study

The reason for this study is to determine individuals that athletes turn to for social support. This study will also look at several factors that may play a roll in who athletes turn to for social support. Approximately 300 participants will be included in this study.

Description of Procedures

If you agree to be part of this study, you will be asked to complete and submit a survey. The survey consists of a scenario, several Likert scale answers (scale of 1-6), and demographic information. The survey will be given online and should take no more than 30 minutes to complete.

What are the risks?

By participating in this study, you may experience slight discomfort due to the nature of the scenarios. This risk is minimal due to the scenarios being a hypothetical situation. If you feel that you need follow-up care, please contact the counseling and psychological services at your school.

What are the benefits?

You may not benefit directly from this study. However, the information from this study will help us better understand the nature of an athletes social support circle. This information will provide a better understanding of who athletes turn to and how to help them get the support they need.

How will my privacy be protected?

The results of this study are confidential and only the investigators will have access to the information, which will be kept on a password-protected computer. In place of your name, a unique number code will be used. Your name or personal identifying information will not be used in any published reports of this research. All information gathered during this study will be destroyed 5 years after the completion of the project.

Consent to Participate

If you want to participate in this study, Student Athletes And Factors That Determine Their Social Support Circle, please click on the link below to complete and submit the survey.

I have read and understand the information in this form. I have been encouraged to ask questions and all of my questions have been answered to my satisfaction. By completing and submitting the survey, I understand I am consenting to the participation in the study. I know that I can withdraw from the study at any time. I can keep this consent form for my own records.

Appendix C. List of Predictors

YEARS_PLAY: How many years have you been a collegiate athlete?

TEAMMATES: How many teammates are on your team's roster this year?

AGE: Please type in your age in the text box.

GENDER: What is your gender?

GENDER_ATC: What gender is your athletic trainer?

YEARS_ATC: How many years have you been with this athletic trainer?

COMFY_ATC: Would you feel comfortable confiding in one of the athletic trainer in an athletic training room at your school for social support?

SOM_ANX: All questions in the SAS – 2 pertaining to somatic anxiety. Questions 2, 6, 10, 12, 14.

WORRY_ANX: All questions in the SAS – 2 pertaining to worry. Questions 3, 5, 8, 9, 11.

CD_ANX: All questions in the SAS – 2 pertaining to concentration disruption. Questions 1, 4, 7, 13, 15.

SPORT_PAR: How long were you/have you been out of sport participation?

LONG_ATR: How long did you seek treatment in the athletic training room?

TREAT_ATR: How many days a week did/do you visit the athletic training room for treatment reguarding your chronic injury?

SAT_SS_ATC: How likley are you to be satisified with an athletic trainers level of social support?