

ABSTRACT

Kristin Jeffries, IMPLEMENTING A MENTAL WELLNESS SCREENING TOOL TO INCREASE FOCUS ON MENTAL HEALTH IN DIVISION I COLLEGIATE ATHLETICS (Under the direction of Dr. Heidi Puckett). Department of Educational Leadership, May 2021.

Mental health has become an issue of importance in society over the past decade. Mental health diagnoses do not discriminate and have been shown to be an area in need of attention especially for young adults. Student athletes are not immune to issues related to mental health. Balancing academics and the demands of being a collegiate student athlete can be a daunting task. It is not uncommon for issues of mental health to emerge and affect the academic and/or athletic performance of a student athlete.

There is literature to support implications of mental health wellness with the performance of student athletes. The study aims to determine the current feeling of competence and level of coping of student athletes at a large university in a mid-eastern state in the United States. This study may have practical implications for coaches, administrators, and athletic trainers working with college athletes in comparable contexts. Policies and procedures to enhance the overall wellness of student athletes will be proposed based on the analysis of the pertinent data.

IMPLEMENTING A MENTAL WELLNESS SCREENING TOOL TO INCREASE FOCUS
ON MENTAL HEALTH IN DIVISION I COLLEGIATE ATHLETICS

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

East Carolina University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education in Educational Leadership

by

Kristin Jeffries

May, 2021

©Copyright 2021
Kristin Jeffries

IMPLEMENTING A MENTAL WELLNESS SCREENING TOOL TO INCREASE FOCUS
ON MENTAL HEALTH IN DIVISION I COLLEGIATE ATHLETICS

by
Kristin Jeffries

APPROVED BY:

DIRECTOR OF DISSERTATION: _____
Heidi Puckett, EdD

COMMITTEE MEMBER: _____
Travis Lewis, EdD

COMMITTEE MEMBER: _____
Marjorie Ringler, EdD

COMMITTEE MEMBER: _____
Celeste Crawford, PhD

CHAIR OF THE DEPARTMENT OF EDUCATIONAL LEADERSHIP:

Marjorie Ringler, EdD

DEAN OF THE GRADUATE SCHOOL:

Paul Gemperline, PhD

DEDICATION

This dissertation is dedicated to my loving and supportive family. Mom, Dad, Shawn and Reagan, thank you for encouraging me to pursue my doctoral degree and for giving me the confidence in my abilities to succeed. This accomplishment would not exist without your love and support.

ACKNOWLEDGEMENTS

The completion of my dissertation would not have been possible without the support of my family. I am extremely grateful to my parents who have supported me through all of my years of education. My husband who has had incredible patience and has been extremely supportive over the three years of this process. My daughter, Reagan, who continuously asked how I was doing on my chapter book and was always there to motivate and cheer me on.

This would not have been successful without the support of so many people. From recommendation letters, messages of confidence and encouragement to those who offered patience and understanding about all of my distractions and time away from various things. A special recognition to ECU athletics and those who played a role in the process, especially to the participating athletes and athletic trainers. Thank you to these individuals for their contributions.

Finally, I cannot begin to express my thanks to Dr. Ringler, Dr. Puckett and the Faculty of the Educational Leadership department at ECU, who took a chance and gave me the opportunity to continue my education and advance my professional career. Thank you to my committee for being a part of this process. The completion of this doctoral dissertation and coursework, or a marathon as she likes to call it, would not have been successful without my chair Dr. Heidi Puckett. Your patience, advice and guidance are much appreciated and I cannot begin to express how grateful I am for all that you have done.

TABLE OF CONTENTS

	Page
TITLE.....	i
COPYRIGHT.....	ii
SIGNATURE.....	iii
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	xii
LIST OF FIGURES.....	xiii
CHAPTER 1: INTRODUCTION.....	1
Background of the Problem.....	1
Problem Statement.....	5
Purpose of the Study.....	7
Study Questions.....	8
Theoretical Foundation.....	8
Definition of Key Terms.....	9
Assumptions.....	11
Scope/Delimitations.....	11
Limitations.....	12
Significance of the Study.....	13
Advances in Practice.....	13
Impact on Social Justice and Equity.....	14
Summary.....	14

CHAPTER 2: REVIEW OF LITERATURE.....	15
Theoretical Foundation.....	16
Mental Health Diagnosis.....	19
Mental Health Care.....	21
Integrated Care Model.....	23
Positive Psychology.....	26
Collegiate Athletes.....	27
Student Athlete Resilience	30
Best Practices.....	34
Athletic Trainer Procedures.....	38
Institutional Screening Practices.....	39
Summary and Conclusions.....	40
CHAPTER 3: METHODOLOGY.....	42
Study Design and Rationale.....	43
Population.....	46
Quantitative Data.....	46
Qualitative Data.....	48
Sample and Sampling Procedures.....	48
Quantitative Data.....	48
Qualitative Data.....	49
Ethical Considerations and Informed Consent.....	50
Instrumentation.....	52
Quantitative Data.....	52

Qualitative Data.....	53
Procedures.....	54
Phase 1.....	54
Phase 2.....	54
Phase 3.....	56
Phase 4.....	57
Phase 5.....	57
Phase 6.....	57
Phase 7.....	58
Methodological Assumptions and Limitations.....	58
Archival Data.....	59
Data Processing and Analysis.....	60
Quantitative Data.....	60
Qualitative Data.....	60
Role of the Scholarly Practitioner.....	61
Summary.....	62
CHAPTER 4: RESULTS.....	63
Coronavirus Pandemic	63
Introduction	64
Participant Demographics	66
Participants in Quantitative Data Collection Phase	66
Participants in Qualitative Data Collection Phase	70
Molly.....	70

Krista.....	72
Zac.....	72
Kelsey.....	72
Allie.....	72
Data Collection	73
Quantitative Data Collection – Student Athlete Screening Tool	73
Qualitative Data Collection – Athletic Trainer Interviews.....	78
Molly.....	79
Krista.....	80
Zac.....	80
Kelsey.....	80
Allie.....	80
Quantitative Data Analysis	81
Qualitative Data Analysis	90
Importance of the Relationship Created Between Student Athletes and Coaches.....	93
Collaboration to Provide Counseling Resources on Campus in Support of Student Athletes.....	96
Focus on Mental Health and the Importance of Identification.....	97
Collaboration with Team Doctor for the Benefit of Student Athletes.....	99
Results.....	100
Analysis of Study Question # 1.....	101
Analysis of Research Question # 2.....	104
Summary	108

CHAPTER 5: Summary, Conclusions, and Recommendations.....	110
Summary of the Findings.....	111
Interpretation of the Findings.....	114
Theoretical Framework.....	114
Mental Health Diagnosis.....	116
Mental Health Care.....	116
Integrated Care Model.....	118
Best Practices.....	120
Athletic Trainer Procedures.....	121
Limitations of the Study.....	122
External Validity.....	122
Instrumentation.....	123
Coronavirus Pandemic.....	123
Implications of the Findings for Practice.....	123
Social Justice, Diversity, Access and Equity Implications.....	127
Recommendations for Future Studies.....	128
Role of the Scholarly Practitioner.....	130
Conclusions.....	130
REFERENCES.....	132
APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER.....	141
APPENDIX B: CONSENT FORM QUANTITATIVE	143
APPENDIX C: CONSENT FORM QUALITATIVE	146
APPENDIX D: PRESEASON SCREENING TOOL.....	149

APPENDIX E: PRESEASON HEALTH QUESTIONNAIRE.....	150
APPENDIX F: INTERVIEW QUESTIONS.....	153
APPENDIX G: STUDENT ATHLETE DEMOGRAPHICS BY TEAM	155
APPENDIX H: STUDENT ATHLETE “YES” RESPONSES BY YEAR	164
APPENDIX I: STUDENT ATHLETE “YES “RESPONSES BY TEAM.....	167

LIST OF TABLES

1. Corresponding Data Source to Study Questions.....	47
2. Procedures Timeline.....	55
3. Summary of Student Athletes by Gender.....	67
4. Quantitative Data: Student Athlete Participants.....	69
5. Qualitative Data: Athletic Trainer Demographics.....	71
6. Qualitative Data Codes and Themes.....	92

LIST OF FIGURES

1. Student athlete participants including a breakdown of males and females.....	83
2. Student athlete participants with a breakdown by identified year at ECU.....	84
3. Student athlete participants with a breakdown by team affiliation.....	85
4. Screening tool results from all student athlete participants at ECU.....	86
5. Overall screening tool results for female student athlete participants at ECU.....	88
6. Overall screening tool results for male student athlete participants at ECU.....	89

CHAPTER 1: INTRODUCTION

The National Institute of Mental Health [NIMH] (2018) estimated in 2015 that at least 1 in 5 Americans, ages 18-25, have a diagnosable mental illness. This specific age group of 18 to 25 year olds, typically college students, are least likely to receive treatment for mental health issues (NCAA Sport Science Institute, 2018).

The following research study examined this issue among student athletes at East Carolina University (ECU). Chapter 1 will introduce the research study. The problem of practice focused on the opportunity to identify student athletes who may self-disclose mental health concerns or symptoms and ensure that they are aware of available resources. The purpose of the study was to identify areas that could be improved to help student athletes achieve overall wellness, specifically related to mental health wellness. The results of this study provided the opportunity for the creation of new policies and procedures to guide athletics administration, athletic trainers and coaches in assisting student athletes. Chapter 1 will provide the background, purpose, significance and problem statement of the study. The study questions will also be discussed, along with the theoretical framework, key terms, assumptions, scope, limitations, and advances in practice.

Background of the Problem

This study focused on the issue of mental health illness and achieving mental health wellness in collegiate athletics. The scholarly practitioner implemented an intervention that may help athletic administrators identify student athletes who may be suffering from symptoms of a mental health illness. Identifying these students will allow the Athletics Department at ECU to provide better services and resources to these student athletes. Breaking down barriers that create the stigma of mental health diagnosis within athletes, or the general population, can be a very

difficult task. Mental health is a broad condition that includes many diagnoses. Mental health can encompass depression, anxiety, eating disorders, self-harm, suicidal ideations, alcohol or drug abuse, or even insomnia. Resources are available for athletes; however, it is possible that the stigma of being a student athlete, coupled with higher expectations and the “must-win” mentality of coaches, affects their willingness to self-identify and take advantage of the resources.

Routine physical examinations for student athletes have been in place for four decades and are based on the recommendations from the National Athletic Trainers Association (NATA). These exams are used in an attempt to identify medical conditions that put athletes at an increased risk during participation (Conley et al., 2014). There is debate, however, as to whether the current procedures are successful as the trend in mental health incidents and severity continues to grow. Reported mental illness in young adults, ages 18 – 25, is currently at 30%, compared to 19% in 2009 (Conley et al., 2014).

Currently several steps are required to be taken by student athletes in order to be cleared to participate at ECU. For new athletes on campus this includes a basic physical (i.e. weight, blood pressure, EKG) with the athletic trainer, health history questionnaire comprised of 50 questions (see Appendix E), a baseline concussion test, sickle cell lab results and a physical with the team doctor. Returning athletes also have a basic physical with the athletic trainer. Returning student athletes also update their health history form, complete another baseline concussion test and may possibly see the team doctor. A visit with the team doctor for returning athletes would be initiated if something had changed on the health history form, for example any surgeries that may have occurred within the calendar year or if the basic physical with the athletic trainer indicates a concern (i.e. significant weight loss or gain).

The current clearing procedure for athletic participation at ECU does not include a mental health component, despite the fact that it has been recommended and is included within the best practices document from the National Collegiate Athletic Association [NCAA] (NCAA Sport Science Institute, 2018). Due to the increased focus on mental health and rising statistics, the NCAA has made these recommendations and created best practices to bring not only more focus on the issue of mental health, but also a change in college athletics culture.

In addition to the recommendations already provided by the NCAA, there are specific steps to follow when a student is identified as possibly being considered “at risk” for mental health concerns. A mental health screening component, a Preparticipation Evaluation (PPE), would be added as part of the initial physical health screenings that athletes already complete during preseason. The recommendation is a nine question, yes/no screening tool. The screening tool was selected by the NCAA Mental Health Task Force established in 2013 by the NCAA to create recommendations for college and university athletic departments (NCAA Sport Science Institute, 2017). The selected screening tool was adapted from a screening tool created by Carroll and McGinley used for identifying mental health problems in alcohol/other drug-dependent persons (Carroll & McGinley, 2001). Recommendations for adaptation were made from the National Athletic Trainers’ Association position statement on preparticipation physical examinations and disqualifying conditions (Conley et al., 2014).

If students answer in the affirmative to any of the nine questions, there are recommended follow-up screening tools to allow for further, more specific identifications and appropriate assistance. This will take place with the athletic trainer immediately following the completion of the screening tool. If necessary, the student athlete would be referred to a licensed mental health practitioner qualified for further evaluation (NCAA Sport Science Institute, 2018). Adding the

screening tool focused on mental health concerns could allow interventions to be put in place early in the process. It also will ensure that Division I athletes at ECU have access to the services that they need as an early intervention or preventative measure, rather than as a reactive service.

A preparticipation evaluation (PPE) would allow athletic trainers and team physicians to follow up with student athletes who provide concerning answers related to their mental health. The recommendation is that the PPE be completed four to six weeks before preseason practices begin (Conley et al., 2014). This will allow for accurate wellness information to be received about the athlete, as well as identify necessary interventions to be put in place prior to practices and the beginning of the season.

An important component for athletes, coaches, and parents to understand is that the Health Insurance Portability and Accountability Act (HIPAA) and Family Educational Rights and Privacy Act (FERPA) cover mental health conditions and treatments, similar to any other injury or illness. Disclosure of any diagnosed conditions or services being received are only required to be released when the situation is an emergency and the student's well-being is at risk.

ECU has provided a counselor from the counseling center on campus to assist student athletes for the past two years. One male counselor offers an hour and a half per week for appointments with student athletes; as that is the amount of time that he is given to devote to meeting with athletes. Beginning in the fall of 2019, as an alternative option, the counseling center added a female counselor to support student athletes. The female counselor offers two hours per week for athletes on her schedule. With both a male and female counselor available, the hope is that more athletes will take advantage of these services as a result of increased comfort with a gender specific counselor. This may also allow athletes the opportunity to seek preventative care when noticing signs and symptoms for themselves or their teammates.

In order to ensure educational equity at the institution, it is important that student athletes feel like any other student on campus, especially when related to the self-identification of signs of poor mental health and seeking available services. The stigma and pressure to perform and win games are factors that may affect their mental health wellness as an athlete and as a student. Maddy Banic, a Division I swimmer from the University of Tennessee, discusses her struggle to access care for herself due to the mindset of being a tough, strong athlete.

Especially as an athlete, we are supposed to be invincible. Grit our teeth and take the pain. Be the role model for fans and people who look up to us. But we aren't perfect, we are still human, and humans hurt (Banic, 2018).

Student athletes at ECU do have access to mental health care, but it is anticipated that the need will increase. With the resources available to each team through athletic trainers, coaching staff and support staff, it is hoped that athletes feel increasingly comfortable disclosing information and accepting a self-care plan for themselves. Just as students accept and develop a plan to be a successful academic student from leadership and advisors, or a plan of rehabilitation when they return from a physical injury, student athletes must accept and develop a plan for mental health wellness.

Problem Statement

The second leading cause of death for 15-29 year olds is suicide (World Health Organization [WHO], 2014a). Three quarters of college students experience their first episode of anxiety by the age of 22 (NCAA Sport Science Institute, 2018) and 8% of full-time college students are estimated to have had suicidal thoughts (Center for Disease Control and Prevention [CDC], 2018). This may be even more prevalent among Division I student athletes, and it is important that administrators recognize the need for additional resources for this population.

The problem of practice identified involves the absence of protocol, procedures and identification tools to assist the appropriate stakeholders in focusing on mental health wellness among Division I student athletes. As a result of this problem, there is little data on whether student athletes will self-identify concerns or symptoms of mental health. It is also unknown if they are aware of the resources available to them on campus related to mental health, and if they take advantage of these services. This study assisted the leadership and athletic training staff at ECU to determine the next steps in putting procedures in place to provide a proactive approach to student athlete mental wellness.

Fortunately, ECU has not experienced a student athlete taking their own life; however, this is always a concern and possibility that could happen without warning. ECU has the opportunity to be proactive by putting procedures and policies in place to help student athletes manage their mental health illnesses. Putting a procedure in place before an incident happens may save the university from liability and from having to create procedures as a reactionary measure. An example of this type of reactionary measure is with the extensive amount of protocol that has been put in place for concussions. The first materials were created and released by the Heads Up program in 2003 at the Centers for Disease Control and Prevention (CDC). Over the last 15 years, the program has released several updates and has received endorsements from multiple organizations, including the NFL in December 2009 (Center for Disease Control and Prevention [CDC], 2015).

In 2008 a student at a local high school in Greenville, North Carolina, where ECU is located, died of second impact syndrome (SIS). SIS is diagnosed when a second head injury occurs shortly after an initial head injury and before the first symptoms have subsided (Bey & Ostick, 2009). When this incident occurred locally, an injury management specialist was in place

at each high school. The current protocol was followed; however, after being cleared to participate based on the current protocol, the student suffered a second hit to the head. The addition of the second injury resulted in brain swelling and ultimately, the student died.

As a result of this incident, the public school system made several changes to the existing procedures, including the incorporation of the “Return to Play” protocol and most recently adding “Return to Learn.” Both of these programs allow for a gradual reentry and consistent follow up before the athlete can return to their sport or to the classroom. In addition, athletic trainers were assigned to the schools in the district.

These new procedures and safety measures were put in place and were a much needed addition for the well-being of the student athletes. However, this was a reactive measure, whereas a proactive measure could prevent a student death. Similar to current mental health procedures, a proactive approach may be suggested to athletic administrators to avoid a necessary reactive response.

Purpose of the Study

The purpose of this mixed methods study was to examine the results of the implementation of a preseason screening tool provided to student athletes at ECU that allowed the opportunity for them to identify symptoms or signs of mental health illness as part of their preseason physicals. Early identification and intervention are crucial parts of overall wellness. A screening tool recommended by the NCAA was utilized and was intended to be given by athletic trainers during the preseason physicals. The scholarly practitioner examined the results of the tool and conducted follow-up interviews with the athletic trainers in an effort to determine if the results of the screening tool could more accurately identify student athletes who were exhibiting concerns related to mental health. These individuals were provided with resources, counseling

services or other interventions to help them achieve overall wellness in addition to performing at their highest level as students and as athletes.

Study Questions

Study question 1: *How does the implementation of a mental health pre-screening tool as part of collegiate preseason physicals affect the information athletes provide regarding mental health?*

- a. *Are collegiate athletes more likely to provide information regarding mental health with the implementation of the pre-screening tool?*
- b. *What type of mental health issues or symptoms do student athletes divulge to athletic training staff?*

Study question 2: *What are the perceptions of the athletic trainers related to the addition of the pre-screening tool as part of the preseason physical?*

- a. *What available resources do student athletes and/or athletic training staff members identify as being helpful?*

Theoretical Foundation

The theory of learned behavior has been successful in informing the development of intervention programs for health psychology (Ajzen, 2002). This noted success has also predicted a range of situations across multiple fields related to human behavior and observation. Through research of the theory of planned behavior, the help-seeking model was developed (Kauer et al., 2017). According to Kauer et al. (2017), the help-seeking model is specifically focused on mental health help-seeking for adolescents to young adults. Additional information related to the theoretical framework relevant to this particular study can be found in Chapter 2.

The study questions seek to understand how many student athletes disclose mental health concerns; and if they disclose this information, it will be important to determine the number of student athletes who then take advantage of available resources. As one of the components of the help-seeking model, the research provides additional information regarding the development that occurs when student athletes transition from disclosing information from personal relationships, with close family and friends, to interpersonal professionals, including athletic trainers or professional counselors (Rickwood et al., 2005).

Definition of Key Terms

Definitions of key terms are provided to ensure clarity regarding the study topic and relevant language in the field.

Athletic Trainer (ATC) – Health care professionals who render service or treatment, under the direction of or in collaboration with a physician, in accordance with their education and training and the state’s statutes, rules and regulations. As a part of the health care team, services provided by athletic trainers include primary care, injury and illness prevention, wellness promotion and education, emergent care, examination and clinical diagnosis, therapeutic intervention, and rehabilitation of injuries and medical conditions (National Athletic Trainer’s Association [NATA], 2018).

Mental Health Wellness - State of well-being in which every individual realizes his or her own potential and can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2014a).

Mental Health Diagnosis - A label given by a medical professional. Examples include anxiety, depression, suicidal ideations, eating disorders, bipolar disorder, obsessive-compulsive disorder and insomnia (National Institute of Mental Health [NIMH], 2018).

Mental Health Professional - Someone who works in the field of mental health.

Examples include counselors, psychologists, psychiatrists, therapists, social workers, and case managers (American Mental Wellness Association, 2019).

Preparticipation Evaluation (PPE) – A method for screening for health risks prior to participation in exercise and sports (Wingfield et al., 2004).

Resiliency - Process of adapting well in the face of adversity, trauma, tragedy, threats, and even significant sources of stress – which may include family and relationship problems, serious health problems, or workplace and financial stresses (American Psychological Association, 2010).

Stigma - Stigma is the unwarranted and incorrect stereotype of mental health problems. Stigma happens when individuals with physical illnesses are treated differently than those with mental illnesses (American Mental Wellness Association, 2019).

Screening Tool - A screening tool is a test or quiz that helps identify symptoms of a mental health problem. Screening tools are good first steps to identify problematic behavior or thinking, and the results of a screening tool should be discussed with a medical professional (American Mental Wellness Association, 2019).

Student Athlete - A full-time undergraduate or graduate student enrolled in a college or university and listed on an athletic roster.

Sudden Impact Syndrome (SIS) – Sudden impact syndrome is diagnosed when a second head injury occurs shortly after an initial head injury and before the first symptoms have subsided (Bey & Ostick, 2009)

Assumptions

In this study, the assumption was that student athletes would respond similarly at ECU as they have at other universities around the country. The scholarly practitioner assumed that the student athletes would self-disclose mental health concerns when asked the questions from the selected screening tool. Once the information was disclosed and the student was provided details on available resources, the scholarly practitioner assumed that students would take advantage of and follow up with resources.

Another assumption considered was that stigma and fear of being benched, prohibited from playing, by coaching or athletic training staff played a role in the lack of information student athletes were willing to self-disclose related to symptoms of mental health.

Scope and Delimitations

The proposed study was to take place within the boundaries of the athletic training room at ECU. The screening tool was intended to be given by the athletic trainers in the training room during preseason physicals. The interviews were also intended to be conducted in the athletic training room.

The focus of this study was chosen for the opportunity to make a needed change based on evidence obtained. With the potential of new policies and procedures being put in place, student athletes were provided with more opportunities and were able to obtain overall mental wellness.

The population in the quantitative component of the study was intended to include approximately 450 student athletes. As of July 2020, at ECU, the 450 athletes make up eight male teams, ten female teams, and three spirit squads – two all-female and one co-ed. The student athlete population is comprised of a diverse variety of racial backgrounds and socioeconomic statuses.

The qualitative data collection component consisted of five athletic trainers at ECU, who had experience utilizing the health questionnaire during the preseason physicals. The athletic trainers were selected randomly and were asked to participate voluntarily by the scholarly practitioner. The athletic trainers were from diverse backgrounds and different parts of the country and have a range of years of experience in the field.

Limitations

Limitations included weaknesses related to the validity of the research study. The participants in this study were limited to one university and one department within the same university. Not all students at the university were screened with the screening tool; only student athletes participated.

The athletic trainers involved in the qualitative interview portion of the study participated on a volunteer basis. Five athletic trainers were selected, which is a small sample compared to the number of athletic trainers within the athletic department at ECU.

The scholarly practitioner considered potential biases when reviewing limitations of the study. Each athletic team is assigned a different athletic trainer, with some athletic trainers being assigned to multiple teams and some teams having multiple athletic trainers. With several different trainers intending to administer the questions on the screening tool to the student athletes, there could be a difference in the delivery. A reasonable measure to address this was to provide an educational session on the screening tool to give guidelines and protocols for the most valid results. Additionally, the student athlete does not have to answer the screening tool questions truthfully. Students may perceive that their participation or playing time as a student athlete will be affected by their answers to the screening tool questions. When the athletic trainers administered the tool, they could have begun with a statement, such as “Please

answer the questions truthfully.” This could be a reasonable measure to address any limitations within the administration of the screening tool.

Significance of the Study

This study demonstrated significance in advancing practices of athletic trainers within the athletic department at ECU. The research study provided the athletic department with valuable information to make next step decisions regarding student athletes and their mental wellness.

Advances in Practice

Currently, within the athletic department at ECU, there are procedures in place for all student athletes to participate in a preseason physical. Beginning in 2019, three questions were added addressing the student athlete’s mental health. Physical concerns, previous injuries, family history, along with concussions are addressed at length. The implementation of the screening tool recommended by the NCAA allowed student athletes the opportunity to self-disclose their concerns or diagnoses related to mental wellness near the start of the season. Student athletes were also provided with additional information about available preventative resources and services. This could have provided a better transition for incoming students and could have allowed for returning students to perform at a healthier level.

Along with an additional component being considered for the preseason physical, this study could have allowed for the development of a protocol for athletic trainers to follow throughout the season. Currently, if a student athlete discloses information during the season or is in an event of crisis due to a mental health issue, there are no formal procedures in place, nor are there clear protocols that would safely allow the athlete to return to participation.

Impact on Social Justice and Equity

Educational equity and social justice both involve fairness and eliminate bias. Student athletes are provided educational equity based on their opportunity to receive services, like all other students at ECU. However, the available times and access are limited as a result of a student athlete's schedule. This makes the equity related to available services difficult to manage and may question whether the services are being provided with fidelity. Social justice cannot be achieved without equal access to the opportunity to receive counseling services on campus. Over the past two years, efforts have been made to increase equity, but this continues to be a concern.

Summary

Chapter 1 focused on providing the background, problem statement, and purpose of the research study. The research questions were shared, in addition to an introduction to the theoretical framework for the study. Chapter 2 will provide a more in-depth look at the theoretical framework the scholarly practitioner identified as particularly relevant. The definition of key terms were provided to ensure clarity of the study and language related to the field. Additionally, assumptions, limitations, significance and how this study advances and filled in the gaps within the field related to mental health in collegiate athletics were discussed within this chapter.

Chapter 2 will provide a comprehensive review of the relevant literature applicable to the increasing need for student athletes to be screened and referred for mental health services.

CHAPTER 2: REVIEW OF LITERATURE

The scholarly practitioner recognizes the importance of mental health awareness and as a result identified a problem of practice related to the absence of protocol, procedures and identification tools related to the mental health wellness of Division I student athletes. Without this knowledge, staff within the athletic department will not be able to recommend appropriate services that may assist student athletes. One must also consider that student athletes may not be willing to self-disclose information or take advantage of the resources available to obtain mental wellness.

This study assisted the leadership and athletic training staff at ECU in determining the next steps in putting procedures in place to provide a more proactive approach to student athlete mental wellness. The purpose of this mixed methods study was to examine the results of the implementation of a preseason screening tool provided to student athletes at ECU that allowed the opportunity for them to identify symptoms or signs of mental health illness as part of their preseason physicals. Early identification and intervention are crucial parts of overall wellness. Student athletes face barriers related to stigma and mental health issues.

The literature establishes a foundational knowledge related to mental health and mental health diagnoses. A definition and examples of symptoms, signs, and concerns of the various diagnoses are discussed. The literature provides a variety of care models and describes appropriate techniques for addressing symptoms. In addition, it is important to have contextual information on college athletes and their resilience level. Challenges they face during their tenure as collegiate student athletes will also be discussed during this review of the literature.

Other areas embedded in the research reference Certified Athletic Trainers (ATC) and the National Collegiate Athletic Association (NCAA). ATCs play an important role in the life of a

student athlete. The research provides a look into the roles, responsibilities and limitations ATCs face when working with student athletes. Insight is provided concerning the need for more support and established policies for ATCs to help student athletes in a crisis or with preventative measures.

The review of the relevant literature concludes with a look into the role of the NCAA. This organization plays an integral part in how college athletic departments operate. From policies and procedures to guidance and compliance, the NCAA is a major component. The research provides documentation of the influence the NCAA has in providing the student athlete with the best college experience, which includes both their mental and physical well-being.

Theoretical Foundation

Icek Ajzen's theory of planned behavior links one's beliefs and behavior (Ajzen, 2002). The theory of planned behavior has been applied to many aspects of human behavior. From business (Engle et al., 2010), to pollution reduction (Cordano & Frieze, 2000) cheating (Lonsdale, 2017) and ethical decisions (Buchan, 2005), Ajzen has influenced many fields as a result of his work in planned behavior theory.

In considering the background of this theory, it can be important to review the background of the researcher and how the theory was relevant to his studies. Ajzen is a Polish-American who earned his PhD at the University of Illinois in 1969. He has earned several awards and recognitions throughout his career and has numerous publications (Ajzen, 2002). He has also been referenced in numerous scholarly articles. His original work with Martin Fishbein established the theory of learned action. This theory is now known as the theory of learned behavior (Ajzen, 2002). A person's attitude toward an issue or their attitude toward another person is a function of his/her evaluative beliefs about the attributes of the person or issue

(Ajzen, 2002). This statement indicates that an immediate determinant of any behavior is the person's intention to perform the behavior.

There are multiple theoretical frameworks and models that are applicable in the study; however, the scholarly practitioner has determined that the theory of learned behavior is most directly related to the study. The theory of learned behavior has been successful in informing the development of intervention programs for health psychology (Ajzen, 2002). The theory's success has also been utilized in a range of situations across multiple fields related to human behavior and observation.

The help-seeking model was developed through research conducted with a focus on the theory of planned behavior. The model is intended to be used specifically for mental health help-seeking in adolescents to individuals in young adulthood (Kauer et al., 2017).

In order to improve the attitudes related to help-seeking behavior, one must provide increased knowledge about the theory of help-seeking and the benefits available (Rickwood et al., 2005). This should also be combined with changing subjective norms to change the stigma of mental health. Help-seeking intentions are predicted to lead to behavioral change and the existence of external factors, such as appropriate healthcare costs, available services, and resources, along with the willingness to approach professional help (Ajzen, 2002).

Although the theory of planned behavior is relevant in this particular situation, there are limitations to the use of the theory. As demonstrated earlier this theory is not specific to a particular behavior; it is beneficial and widely used in a variety of situations involving aspects of human behavior. However, the theory of learned behavior may be useful in understanding when there is a change in behavior (Rickwood et al., 2005).

In regard to the help-seeking model, there is a lack of agreement among researchers in the field related to the use of a common theory (Kauer et al., 2017; Rickwood et al., 2005). The following describes an alternative model with four components. First, becoming aware of and appraising the problem; secondly, expressing the need for support; third, knowledge of available and accessible sources of help and finally fourth, being willing to disclose personal information (Kauer et al., 2017).

Help-seeking is a process of translating the very personal domain of psychological distress to the interpersonal domain of seeking needed help. The targeted age group of adolescents to young adults, ages 14-24, may find it difficult to articulate personal feelings to outsiders, such as helping professionals (Rickwood et al., 2005). Their willingness to disclose any symptoms of mental health issues can be challenging and create distress. The help-seeking model focuses on the progression and transition to an interpersonal pathway from a personal one (Kauer et al., 2017). For instance, a personal pathway could involve disclosing feelings to a trusted friend or family members. An interpersonal pathway would be sharing personal information with a formal professional source that is unfamiliar and/or has no personal relationship with the individual (Kauer et al., 2017). Sharing personal information with an interpersonal professional may cause embarrassment and the fear of being stigmatized, which is why this can be difficult (Rickwood et al., 2005).

Young people often prefer to share personal feelings with informal sources who are not biased and subjective. Trained professionals are able to provide accurate and useful information to support young adults and adolescents who are experiencing personal problems, such as mental health concerns (Kauer et al., 2017).

Barriers included with the help-seeking model are directly related to intentions of those sharing personal information. These barriers include needs not being identified, needs that may not lead to intentions and intentions that may not lead to behavior (Kauer et al., 2017).

The theory of planned behavior has been referenced in several areas of human behavior, including mental health, which is the focus of this research study. The help-seeking model is specific to mental health in adolescents to young adults, which is also directly related to this research study. The alternative model proposed by Rickwood et al. (2005) relates to student athletes identifying symptoms of mental health and expressing the need for support. Once those two steps are accomplished, trusted adults are able to assist in providing available resources and making the resources accessible to student athletes described in the third component. The final component is similar to the first two, wherein the student's intention must be to seek and accept professional help. During sessions with the professional, disclosure of personal information is the predominant factor in the model of help-seeking.

The research questions in this study seek to understand how many student athletes disclose mental health concerns. The study also intends to review the collected data to determine the number of student athletes who seek professional help related to any identified concerns. As one of the components of the help-seeking model, the research provides additional information in an effort to increase and improve the services offered to student athletes. The research also allows practitioners to better support students who are transitioning from disclosing information from their personal relationships to sharing the information with interpersonal professionals.

Mental Health Diagnosis

The World Health Organization (WHO, 2014b) defines mental health as a state of well-being in which every individual realizes his or her own potential and can cope with the normal

stresses of life. This individual can work productively and fruitfully and is able to make a contribution to his or her community (WHO, 2014b). According to the WHO (2014b) constitution, “health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” Mental health is more than a diagnosis, treatment or the absence of a mental disorder/disability; it is also an essential component of mental wellness (WHO, 2014a). Based on the previously provided information, one can see that there is no health without mental health. Mental health does not discriminate between socioeconomic, biological, or environmental factors; however, all of these components can have an effect on a person’s mental health (American Psychiatric Association, 2018).

The National Institute of Mental Health [NIMH] (2018) estimated in 2015 that at least 1 in 5 Americans, ages 18-25, have a diagnosable mental illness. This data does not include young adults with substance-use disorders. By the age of 22, three quarters of college students experience their first episode of an anxiety disorder (NCAA, 2018). Additionally, according to the CDC (2018), 8% of full-time college students are estimated to have had suicidal thoughts. The second leading cause of death for 15-29 year olds is suicide (WHO, 2014a). Unfortunately, this particular age group, specifically 18 to 25 year-olds, are least likely to receive treatment for mental health issues (NCAA, 2018).

Mental health is an important characteristic of individuals and communities within society. It is a fundamental and personal ability to maintain and thrive in society (WHO, 2014b). Early identification and effective management of mental health disorders are important elements to ensure that people receive the care they need. Skilled human resources for mental health are lacking in equity compared to the resources and attention of other health concerns in the United States (WHO, 2014b).

A necessity established by the WHO are 10 facts on mental health. One of the 10 facts includes how to increase the availability of mental health services. There are five key barriers that limit the availability of mental health care. First is the absence of mental health from the public health agenda, and the second is related to the difficulties of proper funding. The third barrier recognizes that, historically, medical providers have been lacking in the integration of mental health care. The fourth barrier is that there are inadequate resources for mental health education and providers, and the fifth barrier includes the lack of leadership within public mental health (WHO, 2014b).

Mental Health Care

For student athlete's mental health: A more educated approach (NCAA, 2017a), created by the NCAA for student athletes, attempts to educate that mental illness is a real-life challenge. One in five adults faces a mental health condition each year and individuals are likely to be diagnosed by age 24 (NIMH, 2018). Typically, the traditional college athlete is between the ages of 18 – 22. The rigors of the classroom, practice schedule, and adjusting to a new lifestyle can all play a role in the mental wellness of a student athlete. Additionally, stressors may include discussion and expectations related to an athlete's future following their time at the collegiate level. The discussion typically includes decisions related to pursuing a professional career or, on the other end of the spectrum, deciding what is next after losing the identity of being a competitive college athlete (NCAA, 2018).

Victoria Garrick (TED, 2017) a student athlete from the University of Southern California describes her experiences in her TEDxTalk:

Anxiety started to kind of spiral and I wasn't able to cope. Scary thing about mental illness is that you can't see it. Most student athletes are seeking to just be happy again and enjoy the activities and friends they used to enjoy.

She discusses and encourages utilizing resources, the use of breathing techniques, talking to someone and going to a counselor or support session. Searching for a sense of control is how Garrick describes her battle with mental illness (TED, 2017).

Previously established coping mechanisms may not work. Strategies learned prior to college, which student athletes used in high school to deal with high demands, may not make sense or be effective for the stressors in college (NCAA, 2018). Negative cycles of excessive criticism and irrational thinking create negative patterns and negative talk (Finley, 2009).

Negative talk is defined as a series of bad habits that usually perpetuate avoidance (Finley, 2009). This negativity and irrational thinking are not something that athletes are born with, but rather develop over time wherein it becomes a learned behavior. Finley (2009) suggests several steps to conquering negative self-talk. The first is to become aware of the initial signs of negative self-talk. The second is to question your negative belief system and finally, use positive counterstatements (Arora, 2015; Finley, 2009).

Student athletes should be able to recognize their own patterns of overall wellness and should also be able to develop coping techniques and process adversity. When student athletes are unable to develop the skills mentioned on their own, interventions have to be put in place (NCAA, 2018). Identifying that a need is apparent and allowing the student athlete to accept outside help is a difficult step in the process of beginning mental health care.

Integrated Care Model

According to the NCAA Best Practices document, created in 2018, mental health providers should be easily accessible to student athletes. Mental health providers can include athletic trainers, primary care physicians, licensed professional counselors, life skills support staff and registered dietitians and/or nutritionists (NCAA, 2018). The integrated care model could be considered as a comprehensive care method. This model of care combines mental and medical health services with a unified on-site team for treatments, systems, and payments (Peek & National Integration Academy Council, 2013). An increase in collaboration between mental health and physical care is recommended by the NCAA Best Practices document (NCAA Sport Science Institute, 2018). This document supports a comprehensive service to student athletes and is best served through collaboration. Providing an integrated care model in the training room will provide comprehensive care to student athletes and may help reduce the stigma of mental health care (Sudano et al., 2017).

Peek and Heinrich (1995) explain a three-world view framework of clinical, operational and financial components. The clinical portion could be composed of a screening instrument to identify mental health concerns or needs of student athletes. Although a screening instrument has been identified as an example of a clinic component related to mental health concerns, researchers indicate that only 40% of NCAA Division I university athletic training rooms are using a screening instrument as part of the pre-participation physical examination (Sudano et al., 2017). The screening instrument can be used as another way to collect data regarding student athletes' mental health issues, which may include depression, anxiety, substance use, mood disorders, and ADHD (NCAA, 2018).

The second component of the three-world view framework is operational. This portion of the integrated care model is the monitoring of operations. According to Peek and Heinrich (1995), once the screening instrument is complete, the discussion moves towards services being provided and executed appropriately. During the preseason examination, student athletes would rotate through stations to complete their assessment; additionally, a mental health provider would be present to address any concerns related to mental health (Peek & Heinrich, 1995).

Within the integrated care model, it is recommended that student athletes see a mental health provider a minimum of once every other week. Appointments should be convenient and flexible to work around student athletes' schedules. It may also be beneficial for mental health providers to participate in staff meeting with the ATCs to identify barriers and any concerns related to student athletes accessing the appropriate care (Sudano et al., 2017).

The third component of this framework involves financial stability. This issue should be built into the integrated care program. Typically, the mental health provider is employed through the athletic department, student health services, sport specific budget, or billed to the students' insurance (Sudano et al., 2017). Consistency and relationship building are two additional components important within the field of mental health services. A consideration of the athletic department should be to hire a provider to encourage stability in care. For many reasons within college and university athletic departments, financial limitations will be a concern (NCAA, 2018). However, in terms of care, consistency is important in building relationships and trust between clinician and client.

Establishing a framework for an integrated care model may be challenging within an established athletic department. Departments are encouraged to find opportunities where changes can be integrated. A shared vision about implementing mental health through screenings and

providing services is imperative. To increase the success of implementation, an interdisciplinary team should be established, protocol and policies need to be revised and evaluations should be created (Sudano et al., 2017). These components are also mentioned in the NCAA Best Practices document (NCAA Sport Science Institute, 2018).

A student athlete's mental health and physical health are equally important (NCAA, 2018). Currently, there are procedures and clearance protocols in place for athletes to return after a physical injury or concussion (Robinson et al., 2015). Likewise, a significant mental health episode should be considered as a required protocol to gain clearance to return to the field or court. A significant mental health episode could be considered an attempt or threat to hurt oneself or others. However, a significant mental health episode will look different for each individual athlete. As with any physical or mental health concern, when removing a student athlete from competition, it ultimately should be within the athlete's best interest to return. Coaching staffs must also be educated on such policies and understand the risks involved if a student athlete is not in the best state of mental wellness to compete (NCAA, 2017b). This is a difficult concept to accept, as mental health typically cannot be viewed externally. Mental health concerns or diagnoses are not always in an active state, meaning the limitations of the concern are not always affecting the athlete (WHO, 2014b).

There are different models of integrating behavioral or mental health into athletic programs. Barriers typically exist when implementing a new practice that involves a change in procedures and requiring acceptance from several stakeholders. Evaluations should be a routine part of integrating a new model of care and should consist of conducting interviews with student athletes, athletic trainers, and coaches. Established policies should be adjusted in order to create

the best care model when considering mental wellness for all student athletes (Sudano et al., 2017).

Positive Psychology

According to Chen et al. (2017), another model of care that could be considered when reviewing opportunities to affect mental wellness is positive psychology. Positive psychology strives to work towards areas of positive emotions, positive aspects, creativity, optimism, resilience, empathy, compassion, humor and life satisfaction (Schrank et al., 2014). This strategy aims to refocus exercises within the counseling session to be of a positive nature. The clinician should focus on the need to identify positive qualities instead of focusing on responding to a problem (Schrank et al., 2014). The focus should continue to help the individual to overcome and be able to move forward and be successful.

Positive psychology can be used by sports psychologists and/or with student athletes receiving counseling or therapy. Student athletes are under demanding training loads and tremendous pressure to win. According to Chen et al. (2017), this can create a lower level of life satisfaction. Life satisfaction of athletes is directly related to positive experiences and outcomes that one obtains (Chen et al., 2017). Additionally, a high level of gratitude may make life more satisfying. Gratitude repeatedly reminds us about the positive aspects of life and positive life circumstances (Sheldon & King, 2001).

Sports psychologists are able to help athletes attempt to achieve optimal mental conditions, and well-being might be the foundation of optimal human performance (Ryan & Deci, 2001). Mental health, related to student athletes and performance, has been a consideration discussed since the 1980s (Schrank et al., 2014). With a shift in mindset, positive psychology is able to focus on the well-being of the whole person and refrain from negative factors. This

concept is pertinent for athletes and can allow them to improve performance and focus on mental health wellness (Chen et al., 2017).

Collegiate Athletes

There are approximately 480,000 active collegiate student athletes, according to the NCAA (2018). Based on the most recent numbers compiled by the NCAA from 2016-2017, 8 million high school students play sports. Therefore, only 16% of high school athletes will be on a college athletic team. Aside from being talented and skilled in their specific area, collegiate athletes are driven, determined and typically function based on their own internal drive and motivation (NCAA, 2017b). These characteristics are not only true of their athletic abilities, but also for their academics and personality.

A large responsibility falls on athletic departments to make new athletes feel welcome and comfortable in their new environment. This responsibility continues as students remain on campus throughout their years at the university. This is similar to the atmosphere that a resident advisor would provide to incoming students living in dormitories. Every student transitioning to a college or university will have an adjustment period (Galatzer-Levy et al., 2012); and athletes are not immune to these adjustments (López & Levy, 2013). Collegiate student athletes are typically coming from an environment where they are the most talented member of their team and most likely serve as a leader. They may also be used to an environment where they were comfortable asking questions of their coaches and teachers or sharing concerns.

All freshmen are adapting to living away from home for the first time; however, student athletes are also tasked with managing eating and sleeping schedules, in addition to studying, workouts, practices, team meetings, and community service. Athletes are adjusting to a new coach, new practice style and new teammates (TED, 2017). One of the biggest challenges and

adjustments may be balancing the addition of a travel schedule. The time commitment for a student athlete is tremendous and requires independence and motivation to be successful (TED, 2017).

Mental health wellness has become a recent focus within athletic departments across the country with the NCAA being a large influence. However, the NCAA is still behind when it comes to mental health wellness for student athletes (NCAA, 2017a). The responsibility lies within the many stakeholders, including focusing on the resiliency of the student athlete. Stakeholders include coaches, athletic trainers, medical staff, academic advisors, and teammates, who are able to help with identifying symptoms and acting on observations of student athletes on or off the field or court (Galli & Vealey, 2008). If mental health care and the need for additional staff becomes a requirement for universities, the NCAA must be prepared to provide financial assistance to assist the institutions' athletic departments in fulfilling this requirement.

According to the American Institute of Stress (Hanna, 2016), all of these factors can become a stressor to a student athlete. If athletes are unable to manage or cope with their own stressors, it will increase their risk of injury. The number one psychological predictor of injury susceptibility is poor stress management. Stress may affect both physical and mental health and can develop into irregular patterns in student athletes' lives.

Due to sport culture and social stigma, student athletes often see mental health illness as a weakness, encouraging them to avoid mental health resources (Etzel & Watson, 2007; Hong et al., 2018). Health care for collegiate student athletes should include a focus on both physical and psychological well-being (Hong et al., 2018). However, there has been an increase in recognition over the past several years in regard to mental health diagnosis within the college student population. With the risk of illness and injury when playing sports, there is a psychological

component to these incidents, as well (Hong et al., 2018). There has always been an emphasis on the physical aspect of collegiate athletics. Most emphasis comes from coaches and strength and conditioning staff, because that is their area of expertise. Minimal education is provided to stakeholders who interact with student athletes on a day-to-day basis. A variety of psychological factors and mental health concerns can occur as a result of a physical injury. Mental health concerns could consist of anxiety, depression, eating disorders, substance abuse, and other issues (NIMH, 2018). Symptoms of these concerns can vary from person to person but can also differ between athletes (Hong et al., 2018). Mental health professionals working with student athletes should be familiar with the sports culture and the specialized needs of student athletes (Donohue et al., 2013; López & Levy, 2013). These services should also include stigma-reducing strategies that may include self-improvement, positive self-talk and emphasizing strengths (Gavrilova & Donohue, 2018).

Athletic departments and support personnel are encouraged to start a conversation by talking with student athletes about how they are feeling. Education opportunities for coaches and other important stakeholders about wellness could be a consideration for themselves and others. Health care providers in close contact with student athletes need to be able to recognize risk factors. Education is part of being able to accomplish this important piece of recognition. Encouragement is needed to provide a sense of community within athletics and develop a support structure. Additionally, having protocols in place can be very helpful and necessary; however, athletic departments are encouraged to have a written policy to engage the community who is supporting their student athletes (NCAA, 2018). Understanding and raising awareness are two key components to the mental wellness of student athletes, which ultimately improves their athletic performance.

Hong et al. (2018) also explain that there is a difference between performance psychology and clinical psychology. Coaches and athletes need to understand the important difference between the two. Evidence-based treatment programs are being utilized to improve mental health after diagnosis (Barlow, 2014), along with the development of resilience. These practices appear to be underutilized within the athletic population (López & Levy, 2013). Failure to implement evidence-based interventions and adapt these within the context of a sports culture has decreased the success of student athletes with mental health concerns (Donohue et al., 2013).

The student athlete population is unique with many factors to consider in regard to mental health. Students fitting this description are typically ages 18-24 and, even though considered adults, are still learning and developing (NCAA, 2017a). Guidance is key when working with these students and is vital to their mental health and overall wellness.

Student Athlete Resilience

Resilience is defined by the American Psychological Association (2010) as the process of adapting well in the face of adversity, trauma, tragedy, threats, and even significant sources of stress – such as family and relationship problems, serious health problems, or workplace and financial stresses. Resilience refers to positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity (Herrman et al., 2011). Similarly, Egeland et al. (1993) define resilience as the development of competence despite severe or pervasive adversity. Resilience is not a skill that one is born with but one that develops over time within the interactions of a person's environment (Arora, 2015).

Often external factors will exacerbate internal difficulties within the university environment, but one must also acknowledge the general life stressors (Markoulakis & Kirsh, 2013). A consideration from Markoulakis and Kirsh (2013) is to focus on the prevention of

student difficulties rather than the interventions once the concern has already occurred. The researchers also note that there is a need to distinguish between normal stress and the effects of stressors on college students (Markoulakis & Kirsh, 2013). This is noteworthy in order to provide guidance to university faculty and staff and to keep them from prematurely dismissing students' concerns (Tinklin et al., 2005).

Richardson (2002) states there are three waves in identifying developmental assets and protective factors. The first of these waves is the identification of resilient qualities. The second wave describes resilience as a disruptive process for accessing resilient qualities, while the third wave exemplifies the postmodern and multidisciplinary view of resilience, which is the force that drives a person to grow through adversity and disruptions. In addition, Galli and Vaeley (2008) argued that the development of resilience was influenced by a number of factors. These factors include "personal resources, sociocultural influences, and agitation created by a combination of unpleasant emotions and coping strategies" (Galli & Vaeley, 2008, p. 316).

Resiliency is an ordinary skill that should be commonly demonstrated. Behaviors, thoughts, and actions can be learned and developed by students and athletes. These learned traits encourage success. Resiliency is an essential skill with no exceptions for student athletes (Arora, 2015). The stigma of mental health encourages student athletes to keep working towards what they are told their goals are, in and out of the classroom, with no room for feelings of anxiety, depression, eating disorders, ADHD or any other mental health diagnosis.

There is a relationship between adversity and positive adaptations (Egeland et al., 1993). Environmental factors are of utmost importance when developing skills related to resilience. Factors between adversity and positive adaptations help identify these skills. Garmezy et al. (1984) stated that the capacity for successful adaptation, positive functioning or competence are

invaluable to being resilient. When change happens in a positive way, it can alter the trajectory of the student athlete's ability to deal with difficult and challenging situations.

Pressures exist on a daily basis for student athletes. In particular, freshmen will use developed skills of resilience when transitioning from high school to college (Galli & Vaeley, 2008). As a high school senior athlete, the student may believe that they are the best player on their team and typically serve as the leader/captain of the team. The transition to college surrounds them with athletes who are more talented with a higher skill set and may put the leadership title out of reach until their upperclassman years (Galatzer-Levy et al., 2012). This presents new personal and academic challenges. In addition, adapting to new team routines, rules, coaches and teammates is typical for student athletes and demands a skill set focused on adversity and resilience (Galli & Vealey, 2008). Unexpected obstacles, such as mental health symptoms, can get in the way of day-to-day responsibilities for student athletes (TED, 2017). These symptoms may appear as anxiety, change in eating habits, and feelings of depression.

“The grind,” as Victoria Garrick describes in her TedxTalk, is the work ethic and daily grit of a student athlete (TED, 2017). This is something that coaches encourage daily, outside of practice, in the weight room, during competition, within academics and other obligations for their athletes. Garrick also explains it is constant, sometimes overbearing, and can feel as if it is a never-ending cycle (TED, 2017). The weekly schedule of a student athlete can mirror the hours of a part-time job plus more. Many times, the lack of time management, along with the want and will to be the best results in athletes becoming overwhelmed (TED, 2017). While being overwhelmed is not a mental illness, it can lead to symptoms and a lack of mental wellness (NCAA, 2017b).

Student athletes are taught by coaches and mentors during their adolescent years to have a mentality to never give up, to keep pushing and to bounce back. Fighting through pain and tough times makes one stronger. Positive personality, motivation, confidence, focus, and perceived social support were reported as protective psychological factors among athletes by Sarkar and Fletcher (2014). In addition, the following have been linked to resilience: mental toughness (Jones et al., 2007), self-esteem, and self-efficacy (Flach, 1988).

Athletic trainers, coaches, and teammates are more accepting and are able to visually determine when an athlete has a physical injury (Robinson et al., 2015). Physical injuries typically have a quicker response and treatment put in place and appear to be more accepted in the field of athletics by coaches, teammates and even outsiders. Mental illness cannot be seen by looking at a person. Many times, it is up to the athlete to verbalize symptoms of mental health in order to gain someone's attention for intervention and to even accept the potential issues themselves. Recognizing symptoms of mental health concerns can also be a challenging for student athletes and stakeholders. (NCAA, 2017b).

Resiliency is a crucial component in the life of a student athlete (Arora, 2015). Many times, they do not possess these skills at this new level of expectation, or they may have been able to adapt and cope in the past. Being a collegiate student athlete involves an advanced level of practice, competition and academic time management (Arora, 2015). In order to pursue a chosen sport and manage academic and social pressures, the student athlete must adapt and use skills related to resilience. It is important that school counselors, academic advisors, and all educators involved with student athletes help them develop these skills, beginning during their high school years and continuing during the transition to college and throughout (NCAA, 2017a). Another consideration to reduce and prevent further student difficulties would be

academic and counseling interventions (Markoulakis & Kirsh, 2013). Creating a welcoming environment and guiding these students will aid in their transition, of not only their athletic and academic skills, but also the skills to cope with adversity and challenges within their new setting that they will call home for four to five years.

Best Practices

Mental Health Best Practices: Understanding and Supporting Student Athlete Mental Health is a document developed by a multidisciplinary task force. Through the NCAA Sport Science Institute, best practices were developed to address rising mental health issues experienced by student athletes (NCAA, 2018). The task force was comprised of and endorsed by mental health, medical, higher education, and sports medicine organizations. A fundamental purpose of the task force document was to provide independent recommendations to all campus stakeholders, and to include all pertinent information about how to use the Best Practices document. Distribution of the document to campus stakeholders included collegiate athletic departments and all campus counseling centers. Understanding and supporting “Student Athletes Mental Wellness” is the main purpose developed by the task force. The information provided in this document is beneficial for athletic and sports medicine departments, regardless of college or university size and/or resources, as the NCAA is striving to improve student athlete mental health.

Considering the mental health spectrum, on one end is resilience and the ability to thrive, while on the other end exists mental health disorders that inhibit student athletes’ ability to perform (Arora, 2015). Student athletes are young adults, typically between the ages of 18 and 24, who are still learning and developing, and most importantly, adjusting to life changes when coming to college (López & Levy, 2013). Balancing the rigor of academic and athletic

obligations can trigger mental health disorders, such as anxiety, depression, insomnia, and the misuse of substances (NCAA, 2017a).

Within the best practices document from the NCAA (NCAA Sport Science Institute, 2017), four key components are listed: Clinical Licensure of Practitioners Providing Mental Health Care, Procedures for Identification and Referral of Student Athletes to Qualified Practitioners, Pre-Participation Mental Health Screening, and Health-Promoting Environments that Support Mental Well – Being and Resilience.

Providing formal mental health care to student athletes should be performed by a licensed practitioner or clinician who is qualified in this field of work (NCAA, 2018). It is recommended that the clinician providing treatment have knowledge of the college-age population, as well as knowledge/experience with athletes (NCAA, 2017a). In addition, it is recommended that the licensed practitioner recognize and respect the cultural needs of student athletes from diverse backgrounds, including, but not limited to, refraining from asking questions that may insult an athlete's religion or the hierarchy of the family dynamic in a specific culture. According to the NCAA Best Practices document, being culturally sensitive is important in creating a relationship. The student should be able to gain the trust of the clinician in order to assist the student in obtaining wellness.

When implementing or maintaining services for student athletes with regards to their mental health, there are many points to consider. Each campus should establish an interdisciplinary team to support the mental health wellness of athletes on campus (NCAA, 2018). The interdisciplinary team should be comprised of a variety of professionals who contribute to the success and well-being of students. Recommended team members include athletic trainers, team physicians, a life skills coordinator, a nutritionist, a licensed psychologist

or counselors, perhaps a faculty athlete representative, and a member of the Student Athletic Advisory Council (SAAC) (NCAA, 2017a).

The interdisciplinary team should be created to address the entire spectrum of care for the students' overall wellness. This team could also help implement and educate stakeholders within the entire college or university system. According to the NCAA (NCAA Sport Science Institute, 2017), campus protocols with respect to referring students should be well known by campus faculty and staff who may need to refer a student. Another recommendation is that disability services on campus be consulted in order to provide accommodations to students or to provide strategies to help them to be successful in academic areas. Finally, licensed professionals should always use evidenced-based care that falls within their professional standards (NCAA, 2017a). Overall, collaboration needs to happen within multiple components of the university campus, as the mental health wellness of any student athlete is not the sole responsibility of the athletic department or individual staff member. The university community should work together to provide the best care and support for the student athletes' wellness (Arora, 2015).

Partnership between athletic departments and sports medicine personnel is a critical part of implementing a well-balanced system of care. Within each institution, written procedures should be developed by the interdisciplinary team for emergent or non-emergent situations. The first recommended step is to create a Mental Health Emergency Action Management Plan (MHEAMP) (NCAA, 2017a). This plan will address steps for handling different types of mental health concerns. The second recommendation involves the development of a routine mental health referral process. All stakeholders involved need to be knowledgeable to identify signs and symptoms and be familiar with the MHEAMP as well as the referral process (NCAA, 2017a). Both recommendations are best implemented when they are written down and shared with all

possible stakeholders before an emergency or crisis occurs. Education on how to identify mental health signs and symptoms is critical when encouraging stakeholders to make a referral. Coaches and others who have contact with student athletes should be comfortable with the referral process and willing to help their athletes be mentally healthy (NCAA, 2017a).

The pre-participation mental health screening questionnaire is recommended by the NCAA (NCAA Sport Science Institute, 2017) and is discussed within the Best Practices document. This questionnaire, or a similar one, is recommended as part of the pre-participation exam for each student athlete for each calendar year, or when needed. Next, steps should be developed in order to continue moving the process forward once students have responded. The referral process would look different for each athlete and be specific to each institution. It is important that athletic training staff and athletic departments take into consideration that the counseling staff needs to be available to respond to the needs and requests of student athletes following the pre-participation questionnaire. The NCAA Best Practices document (NCAA Sport Science Institute, 2018) suggests a series of nine questions be asked of each athlete at the beginning of the year, or when needed, during the pre-participation physical examination. It is important to note that the recommended screening instrument is not a stand-alone assessment that can be used to diagnose a student, but it can be used as an identifier. This tool allows appropriate staff to consider follow-up assessments (NCAA, 2017a).

According to the NCAA (NCAA Sport Science Institute, 2017), “the way we communicate about mental health can demonstrate our commitment to inclusion and wellness and our support of all student-athletes...” Creating a supportive environment is a team effort that requires the participation of all stakeholders who are involved with student athletes. Promoting positive relationships and experiences can assist in the determination of a student’s mental

wellness as an athlete during their years in higher education. This is not the sole responsibility of the athletic staff, and should also involve the academic staff who interact with athletes, including but not limited to academic advisors, tutors, and professors. Stakeholders have the ability to make an impression on student athletes themselves. The focus many times is on the adults in the students' lives; however, teammates and athletes from other sports can play a vital role in the success and mental wellness of each other.

Athletic Trainer Procedures

Certified Athletic Trainers (ATC) are not trained mental health providers (National Athletic Trainer's Association [NATA], 2018). Although ATCs are not providing therapy at colleges and universities to student athletes, they are aiding them in the process of receiving help and functioning within their athletic responsibilities. A study by Robinson et al. (2015) found that 50% of current ATCs are aiding in the treatment of a mental health disorder for a student athlete. As previously mentioned, ATCs do not have the training to treat or to recognize symptoms of poor mental health or possibly a mental health disorder (NATA, 2018). This is a concern for several reasons; the first being that untrained professionals are providing treatment without the proper license. Another concern, with good intention, could be that ATCs feel obligated to help student athletes when they feel they are suffering and are unable to get the help needed (Robinson et al., 2015).

It appears that through this study it was determined that there are gaps between knowledge, treatment, referral and follow-up within the National Athletic Trainers Association (NATA). This disparity is also found at NCAA institutions (Robinson et al., 2015).

Institutional Screening Practices

Reaching students who are not comfortable disclosing mental health problems is a concern within higher education. Mental health services continue to be in demand in addressing wellness for all students. Some students will reach out to the resources available on campus, such as the student counseling center, but many students are reluctant or do not recognize that they may be in a poor state of mental health (McKenzie, 2018). Colorado State University (CSU) reached out to a company called Grit Digital Health in hopes of collaborating on a program that could help them reach students who are unwilling to come forward but may need assistance with mental health issues (Grit Digital Health, LLC, 2019).

Together they developed a platform called YOU at College (Grit Digital Health, LLC, 2019). YOU at College is a student well-being online portal that allows students to be honest and receive individualized feedback. This program is being used at many colleges and universities around the country and is not just specific to athletes. YOU at College has been used with entire student populations, but also could be an option for a smaller group such as student athletes.

YOU at College uses data collection on a three lifestyle survey referred to as Reality Checks. This program also collects demographic information to use in providing the best information for student wellness (Grit Digital Health, LLC, 2019). The reality check is advertised to promote well-being, prevent suicide and encourage academic success. The program is designed to provide useful feedback to students to help them succeed in college and beyond. It includes short articles, fact sheets and tips covering the areas of academic success, personal growth, and physical and mental well-being. Integrating into the system that students are already comfortable with, it creates another dimension for college campuses to help students. This process is anonymous and therefore serves as just a resource for students to help themselves. It

does not provide a report to the college or university indicating if further help is needed (Grit Digital Health, LLC, 2019). This program could be used as a tool to supplement college students' self-awareness but should not be considered to replace mental health services.

The integration of this process has been beneficial to the students at CSU. Other college campuses are following this example and joining the program provided. According to McKenzie (2018), over 10,000 students have used the program. Sources from CSU state that this program is beneficial for all students, not only those who feel as if they are having mental health concerns. This program is beneficial for all individuals (Grit Digital Health, LLC, 2019).

Summary and Conclusions

In conclusion, the major theme in the research was the overall well-being, including mental wellness, of collegiate student athletes. The NCAA has established recommended best practices for athletic departments to follow as a guideline, and athletic trainers can play a large role in conjunction with campus counseling centers. It was also shown within the research that student athletes face barriers when it comes to self-identifying symptoms and getting the resources to help with coping strategies.

There continues to be unknown long term effects of identifying early mental health symptoms for the university. Many questions may still arise for universities and athletic departments in regard to how to handle such information and how to implement procedures to best assist their student athletes. Staffing concerns for counseling departments and accommodations student athletes may need from coaches and/or campus student development is also an unknown variable.

This research study provided valuable information to the athletic department and campus counseling center in regard to data on athletes and an estimate of current students dealing with

symptoms of mental health. The literature provided valuable knowledge of potential gaps in current procedures or policies for coaching staffs and athletic trainers. These should be considered for student athletes when issues related to mental wellness arise.

Chapter 3 will explore the design of this mixed methods study. It will also include the benefits of collecting both quantitative data and qualitative data and how it shaped the development of the research.

CHAPTER 3: METHODOLOGY

The purpose of this mixed methods study was to examine the results of the implementation of a preseason screening tool provided to student athletes at ECU that allowed the opportunity for them to identify symptoms or signs of mental health illness as part of their preseason physicals. This pro-active approach to mental wellness illustrated the importance of early identification and intervention on overall wellness.

In the current preseason questionnaire used during yearly physicals, student athletes are asked very few brief questions related to their mental health. As a result, there is a limited baseline for their mental health concerns, which, in turn, does not allow for a comprehensive evaluation of a student's overall health. The student athletes may not be able to take advantage of the preventative measures available to them during their time on campus and as an athlete at ECU. Through the completion of this study, the scholarly practitioner answered the following research questions:

Study question 1: *How does the implementation of a mental health pre-screening tool as part of collegiate preseason physicals affect the information athletes provide regarding mental health?*

- a. *Are collegiate athletes more likely to provide information regarding mental health with the implementation of the pre-screening tool?*
- b. *What type of mental health issues or symptoms do student athletes divulge to athletic training staff?*

Study question 2: *What are the perceptions of the athletic trainers related to the addition of the pre-screening tool as part of the preseason physical?*

- a. *What available resources do student athletes and/or athletic training staff members identify as being helpful?*

Following the implementation of the preseason questionnaire, the scholarly practitioner evaluated the results to ensure that participants who would appear to benefit from campus resources related to mental health have an awareness of the opportunities available. The intent of the resources available was to assist student athletes in their performance as both a successful student and athlete.

Chapter 3 encompasses the research design and includes a description of the intended participant selection process. The procedures of the study and the instrumentation also are discussed within the chapter. Additionally, ethical considerations for the research participants will be addressed.

Study Design and Rationale

The purpose of this mixed methods study was to examine the results of the implementation of a preseason screening tool provided to student athletes at ECU that allowed the opportunity for them to identify symptoms or signs of mental health illness as part of their preseason physicals. Because the scholarly practitioner wanted to make sure that the individuals who most needed this information received it, a screening tool with a focus on mental health, was intended to be added to the initial athletic physical. Breaking down barriers that create a stigma related to a mental health diagnosis within athletes or the general population can be a difficult task.

Mental health is a broad condition that includes many diagnoses. The World Health Organization (WHO, 2014a) defines mental health as “a state of well-being in which every individual realizes his or her own potential and can cope with the normal stresses of life.” The

definition continues to add that this individual can work productively and fruitfully and is able to make a contribution to his or her community (WHO, 2014a). Mental health problems can include depression, anxiety, eating disorders, self-harm, suicidal ideations, alcohol or drug abuse, and even insomnia (World Health Organization. Mental health: Strengthen our response, 2018). Resources for mental health concerns are available for athletes; however, the perception of stigma implies a higher expectation for athletes. The coaches' "must-win" mentality may affect a student athlete's willingness to self-identify, utilize resources or receive counseling.

The chosen research design was a mixed methods approach. According to Creswell and Creswell (2018), the mixed methods research design is utilized as a result of its strength in using both quantitative and qualitative research and is able to reduce the limitations of each method (p. 216). This can be a useful strategy to create a more comprehensive understanding of the research problem (Creswell & Creswell, 2018). Mixed methods was an appropriate design for this study allowing for both qualitative and quantitative data collections to provide a more inclusive data set. The scholarly practitioner collected quantitative data via the use of a screening tool and qualitative data was collected through semi-structured interviews to provide richer, more in-depth information related to each participant's individual situation. Qualitative data collection also allowed athletic trainers, who were provided the quantitative results, to speak more freely and provide as many details as possible.

In order to collect the quantitative data, the scholarly practitioner implemented a preseason screening tool recommended by the NCAA (NCAA Sport Science Institute, 2017). The proposed tool consisted of nine questions with the intention of being added to the initial physical prior to the start of the season. The intention of the data collection was that current athletic trainers would administer the screening tool during the student athletes' initial health

screening. The quantitative data collected through the implementation of the screening tool provided the scholarly practitioner with information related to the first research question. Qualitative data was collected and analyzed following the completion of semi-structured interviews with the athletic trainers and allowed the scholarly practitioner to provide additional details related to the second study question.

In order to create the least amount of disruption and attempt to obtain the most accurate and truthful information, the screening tool was intended to be incorporated as additional questions to student athletes within a process that is already required. The screening tool was intended to be used along with the standard health questionnaire utilized during student athletes' preseason physical examinations with their assigned athletic trainer. The current physical and questionnaire that is used for incoming and returning athletes does not include any questions in regard to prior diagnosis, concerns or feelings related to mental health history. The yes/no questions that make up the screening tool, recommended by the NCAA, are straight forward, pointed questions that allowed professional staff to encourage follow-up or make a decision regarding an immediate intervention response.

Following the completion of the physicals and the implementation of the mental health screening tool, the scholarly practitioner conducted interviews with the athletic trainers to collect qualitative information regarding their input on the results from the additional screening tool. The interviews consisted of open-ended questions in a one-on-one setting. These interviews collected pertinent information from athletic trainers regarding their perceptions related to the implementation of the prescreening tool and campus resources athletes may choose to use in maintaining mental wellness.

The mixed methods design provided the most comprehensive insight into the problem of practice. The scholarly practitioner evaluated the data related to the number of student athletes who self-identified the presence of mental health concerns, as well as the number of students who chose to follow up. The qualitative data collected through the interview process with the athletic trainers was used to provide additional support for needed resources and follow-up for student athletes in an additional effort to maintain mental wellness. Table 1 includes the study questions and the corresponding data points for each.

The research study advanced the knowledge of the staff within the athletic department and campus counseling office related to mental health and student athletes. The number of counseling staff provided solely to student athletes on campus, along with their availability, is based on data from student athlete referrals. Knowledge of possible referrals will help campus counseling staff provide the resources needed for student athletes. This information will also provide athletics staff with knowledge of the mental health needs that may be specific to student athletes. At this time, there is not a full-time counselor located in the athletic department to provide counseling to student athletes. The research data provided knowledge that indicated a need for a specific part-time or full-time counselor position for student athletes.

Population

Quantitative Data

Quantitative data was intended to be collected from approximately 450 student athletes using the NCAA-recommended preseason screening tool that would have been administered by athletic trainers during the student athletes' standard preseason physical. Based on fall 2019 enrollment, ECU has 23,265 undergraduate students and 4,730 graduate students with a total enrollment of approximately 28,000 students. Less than 2% of the population at ECU are

Table 1

Corresponding Data Source to Study Question

Study Question	Data Source
1. How does the implementation of a mental health pre-screening tool as part of collegiate preseason physicals affect the information athletes provide regarding mental health?	Student Survey Interview Questions 1, 3, 4, 5, 10
a. Are collegiate athletes more likely to provide information regarding mental health with the implementation of the pre-screening tool?	Interview Questions 1, 2, 4
b. What type of mental health issues or symptoms do student athletes divulge to athletic training staff?	Student Survey Interview Questions 2, 3, 4, 5
2. What are the perceptions of the athletic trainers related to the addition of the pre-screening tool as part of the pre-season physical?	Interview Questions 1, 8, 9, 11, 12
a. What available resources do student athletes and/or athletic training staff members identify as being helpful?	Interview Questions 6, 7, 8, 10

considered student athletes. Student athletes are identified as undergraduate, and sometimes graduate, full-time students who are recognized by the NCAA as Division I athletes.

Qualitative Data

The population for the semi-structured interviews, conducted to collect qualitative data, consisted of five athletic trainers within the athletic department at ECU. The athletic trainers participated on a volunteer basis. Both male and female athletic trainers, with a wide array of experience among them, participated in the interview process. The volunteer athletic trainers have different professional backgrounds and have come to ECU from different parts of the United States.

Sample and Sampling Procedures

Due to the nature of the mixed methods study, the scholarly practitioner worked with two different types of sampling for the respective quantitative and qualitative parts of the study.

Quantitative Data

Convenience sampling was used to identify participants in collecting the quantitative data for the quantitative section of the research study. According to Gall et al. (2007), convenience sampling is a method of selecting participants from the population. Convenience sampling refers to participants who are accessible and willing to volunteer for this particular study (Arora, 2015; Teddlie & Yu, 2007).

The intended study had student athletes participating in a nine question screening tool as part of their required preseason physical. Athletes were not recruited to participate in the mental health screening tool portion of the study. The proposed study provided the screening tool as part of an already established procedure for student athletes. Instead, the student athletes participated on a volunteer basis and had the option to abstain from answering the mental health questions on

the established screening tool. There were no incentives provided to athletes who participated, nor were there any repercussions for those who chose not to participate.

Qualitative Data

Random purposeful sampling was used for the qualitative component of the research study. Patton (2015), in reference to purposeful sampling, states that information learned through this type of sampling will provide a great deal of knowledge and the central importance of the topic being researched (Suri, 2011). The data retrieved from purposeful sampling provides insight and a vast understanding of the topic as opposed to generalized information. According to Creswell and Poth (2018), random purposeful sampling adds credibility to the sample when the potential purposeful sample is too large (p. 159). The scholarly practitioner used only five athletic trainers out of the 20 at ECU. The sampling was also homogeneous, which describes the sample as focused and reduced from the larger group of potential interviewees (Creswell & Poth, 2018).

The participants for the qualitative component of the research study were athletic trainers. They were recruited by the scholarly practitioner who asked for willing athletic trainers to participate in the interview portion of the study. The scholarly practitioner attempted to select a diverse group of individuals, intending to avoid collecting data from a group that was comprised of all males, all females or all identifying as from the same race. Background was also taken into consideration; the scholarly practitioner inquired about years of experience, diversity of athletes and sports with whom they have worked, as well as educational background. There was no incentive provided by the scholarly practitioner to those trainers who chose to participate. The scholarly practitioner collected qualitative data from the five trainers in order to gain focused and detailed information.

Saturation of data is a concept within the qualitative realm of research. The concept of data saturation is frequently referenced with no one size fits all (Fusch & Ness, 2015). The concept of saturation has developed various definitions and interpretations over the years (Mason, 2010). Failure to reach saturation will have a negative impact on the validity of the research (Fusch & Ness, 2015). Mason (2010) discussed the issue of determining the number of interviews necessary to reach saturation. Saturation is based on the data already collected and provides insight into the need to obtain further data (Saunders et al., 2018). Creswell and Creswell (2018) state, “one stops collecting data when the categories are saturated” (p. 186). When new data can no longer be found, an adequate sample and saturation have been reached.

Ethical Considerations and Informed Consent

In order to ensure the validity of this research study and that proper ethical procedures were followed, approval was received following a review by the Institutional Review Board (IRB). Student athletes completing the survey and athletic trainers being interviewed were asked to review and sign an informed consent document. Informed consent is a standard set of elements that acknowledge the protection of human rights (Creswell & Creswell, 2018). The purpose of this document was for the participant to understand all aspects of the study and agree to the provisions of the study before providing any data. According to Creswell and Creswell (2018), an informed consent form should contain the following: identification of the scholarly practitioner, purpose of study, benefits for participating, and level and type of participant involvement (p. 92). In addition, the consent form should contain a notation of risk to the participants, a guarantee of confidentiality, assurance that the participant can withdraw at any time and the scholarly practitioner’s contact information if the participants have questions at any time (Creswell & Creswell, 2018).

The Senior Associate Athletics Director for Student Services and the Director of Life Skills were both contacted in regard to the study and data collection. They indicated the open-ended question format allows athletic trainers to share pertinent information in regard to current procedures. The scholarly practitioner was advised that the variety and amount of interview questions would allow for an appropriate conversation to occur between the athletic trainer and the scholarly practitioner. The interview data revealed ideas or suggestions on how to engage athletes and better utilize the relationship between student athletes and athletic trainers.

Approval from the IRB was obtained to collect data from student athletes. The scholarly practitioner did not interact with the student athletes during the study and only received information from the screening tool after completion. The scholarly practitioner did not need direct access to any student athletes and no risk or harm to the athletes was anticipated during the research study. Athletes under the age of 18 at the time of the screening tool were not eligible to participate in the study.

There were ethical considerations the scholarly practitioner identified related to student athlete participation, specifically involving follow-up intervention activities. Student athletes do not have to participate in counseling sessions or take advantage of any available resources. They can willingly accept the identified resources or refuse any suggestions made by professionals who were available.

The data collected was stored in an Excel document that was password protected. Each athletic trainer was provided collected data that included information only about the athletes with whom they are working. Once all student athletes completed the questions on the screening tool, the scholarly practitioner combined the information on an Excel document that was password protected. All ECU athletic trainers had access to the information pertaining to their specific

assigned teams. In addition, the head athletic trainer, director of life skills, and the scholarly practitioner had access to the entire collection of data. Collected data consisted of gender, year identified in school, and sport affiliation.

Other considerations included the first impression of a new student athlete coming to campus. Incoming students may choose not to disclose such personal information, due to the perception it could cause, especially when related to the perceived stigma of mental health and the impression to their new teammates and new coaching staff. Another consideration could have involved the education of coaches related to the topic. If professional mental health staff, along with the athletic trainer, do not feel that the student is able to be cleared for participation, that could affect not only the athlete, but the entire team. There are no protocols in place at this time at ECU for student athletes to return to play from any mental health concerns. Therefore, regardless of the professional opinion of the staff on hand, the student athlete can make the decision to participate and the coach could mandate participation and overlook any recommended precautions related to mental health and wellness.

Instrumentation

The scholarly practitioner conducted a mixed methods study using two data collection sources. Quantitative data was collected through the use of a survey questionnaire, and the qualitative data was collected through conducting one-on-one interviews.

Quantitative Data

Instrumentation for the quantitative portion of the research study was a previously developed instrument adapted from a Carroll and McGinley screening form (see Appendix D). The screening tool is located within the NCAA Mental Health Best Practices document established in January 2016, and revised in May 2017 (NCAA Sport Science Institute, 2018).

The screening tool was previously used for identifying mental health problems in alcohol/other drug dependent persons (NCAA Sport Science Institute, 2018). The measure can also be found in the National Athletic Trainers Association (NATA) survey for mental health related concerns.

The proposed screening tool contained nine closed-ended questions, all requiring a yes or no response. The interpretation for the screening tool states:

Any response of “yes” should lead to follow-up discussion between the student-athlete and a member of the primary athletics health care provider team and/or point person for determination about whether the student-athlete should be referred to a licensed mental health professional for further evaluation (NCAA Sport Science Institute, 2018).

Pointed questions are asked referencing sleep habits, overall energy, feeling anxious, depressed, sad or nervous. The screening tool also asks about confidence, feeling hopeful, managing emotions and hurting oneself or others (NCAA Sport Science Institute, 2018).

The screening tool addressed the research questions in multiple ways. The first involves the ability to identify the number of student athletes who might disclose mental health concerns by answering yes to any of the proposed nine questions. Additionally, the number of student athletes who followed up with mental health services, through the athletic trainer or campus counseling center, was intended to be recorded to provide valuable data for analysis towards answering the research questions.

Qualitative Data

Qualitative data was collected during semi-structured interviews with the athletic trainers, with the intention of them conducting the initial pre-screening questionnaire with the student athletes. Experts in the field reviewed the interview questions used for the qualitative data collection (see Appendix D). The questions were utilized in a semi-structured interview and are

all open-ended. According to Creswell and Creswell (2018), face to face, one-on-one in-person interviews allow the scholarly practitioner control over the questioning (p. 188). The semi-structured interview allowed the scholarly practitioner to ask clarifying questions during the interview and ask additional questions when a relevant topic of inquiry was identified during the session. Open-ended questions allowed the athletic trainer to expand on answers. Three colleagues, who can be considered experts in the field, reviewed the interview questions and provided suggestions and feedback. They advised that wording was appropriate and would prompt good discussion during the interview sessions.

Procedures

Procedures for the research study incorporated steps pertaining to the quantitative and qualitative data collection based on the timeline outlined in Table 2.

Phase 1

The scholarly practitioner completed initial meetings with specific campus stakeholders. Meetings were held with the Director of the Center for Counseling and Student Development at ECU, as well as the Senior Associate Athletics Director for Student Services. An additional initial interview with an athletic trainer took place, which reassured the scholarly practitioner that the study was needed and that results would have a purpose.

Phase 2

Prior to the amendments made in the study, the intention was for the scholarly practitioner to establish a training and/or procedure to complete with athletic trainers that would be giving the screening tool to the student athletes. This training would have taken place with all 13 athletic trainers to reduce inconsistencies with the delivery of the screening tool questions.

Table 2

Procedures Timeline

Phase	Procedures	Timeframe
Phase 1	Initial Inquiry	Summer 2018 – 2019
Phase 2	ATC Education/Training	Spring 2020
Phase 3	Collect Quantitative Data	Summer 2 – Fall 2020
Phase 4	Analyze Quantitative Data	Fall 2020 - September
Phase 5	Collect Qualitative Data	Fall 2020 – October
Phase 6	Analyze Qualitative Data	Fall 2020 – November
Phase 7	Provide Recommendations	Spring 2021

Phase 3

Each athletic team at ECU has a predetermined date and time for preseason physicals to occur. On this date, student athletes arrived in the athletic training room and participated in several preseason requirements. During the questionnaire portion, when the student's medical history is reviewed, the intention was for the athletic trainer to incorporate the nine questions on the mental health screening tool being used for the study. Prior to completing the survey questions added to the standard physical screening, student athletes would have been given the informed consent document indicating that they could abstain from participating in this part of the preseason physical. Even if participants abstained from taking part in the additional screening tool, they would still be required to complete all other physicals and screenings identified by the university and the NCAA. The intention was for the athletic trainer to document the responses and then continue with the requirements needed to complete the student athlete's preseason evaluation.

At the conclusion of the physical, the athletic trainer makes recommendations of next steps and available resources based on the answers from the screening tool, which could include possible immediate follow up with a counseling center trained staff member. In the proposed study, if the student athlete answered "yes" to the ninth question, "I have feelings of hurting myself or others," the follow-up would have been immediate and not optional. The student athlete would have been immediately seen and triaged by trained professional counseling staff. If immediate assistance were not needed, the student athlete would have been given information on available mental health and wellness resources, as well as the opportunity to have the athletic trainer make a follow-up appointment with the team physician or counseling staff member during normal business hours within the following two weeks.

Phase 4

Once the quantitative data was collected from the student athletes, the scholarly practitioner compiled and analyzed the information.

Phase 5

Following analysis of the quantitative data, the interview protocol was developed prior to conducting the interviews with the athletic trainers participating in the study. There are several components suggested when developing an interview protocol, according to Creswell (Creswell & Creswell, 2018, p. 190). An interview protocol should include asking questions, recording answers and transcription. When conducting the interview, recording answers via handwritten notes, in addition to audio or video recording, is recommended. There is no set number of questions to be asked; however, 5-10 is a good estimate (Creswell & Creswell, 2018).

The scholarly practitioner scheduled interviews with five athletic trainers who reviewed the screening tool results from the participating student athletes. The interviews were conducted as individual sessions with one athletic trainer and the scholarly practitioner. The environment was comfortable for the athletic trainer, in their private office or in the athletic training room. Each interview lasted approximately 20 minutes and was audio recorded. The informed consent document was given to the athletic trainer by the scholarly practitioner prior to the interview and recording. An introductory question began the conversation followed by pre-determined follow-up questions from the scholarly practitioner or elaborating questions inquiring about information shared in the interview. Interview questions can be found in Appendix F.

Phase 6

At the conclusion of each interview, the scholarly practitioner transcribed the interview and looked for themes. Following the five interviews, the scholarly practitioner was able to

identify any gaps in the data collection that could be filled with additional questions. If saturation of data was not reached by the end of the five interviews, additional athletic trainers could have been contacted about participating in an individual interview.

Phase 7

The final phase of the study included providing protocol recommendations to the appropriate stakeholders in the athletic department.

Methodological Assumptions and Limitations

In this study, it was assumed that student athletes would respond similarly at ECU as they have at other universities around the country where the NCAA screening tool is used. Immediately following the completion of the physical and the screening tool, participants were provided with information regarding applicable resources. Another assumption considered was that student athletes would not self-disclose mental health concerns as a result of possible stigma and the fear of not being allowed to participate.

Limitations included weaknesses related to the validity of the research study. The participants in this particular study were limited to one university and one department within the same university. The entire student body was not being screened with the screening tool; only student athletes participated. Another limitation considered that also parallels as an assumption related to the way in which student athletes answered the survey questions. The student athlete does not have to answer the questions honestly. Students could lie when answering the questions; however, there is no way to determine that factor.

There are also biases to consider as limitations within the study. Each athletic team is assigned a different athletic trainer. Some trainers are assigned to multiple teams and some teams have multiple trainers. With the intention of several different trainers administering the questions

on the screening tool to the student athletes, there could have been a difference in the delivery. An additional option to consider was whether the screening tool could be more reliable when provided during the proposed face-to-face preseason physical or as an online survey.

The athletic trainers involved in the interview portion of the qualitative data collection participated on a volunteer basis. Only five were selected, which is a small sample compared to the number of trainers within the athletic department. This allowed the scholarly practitioner to obtain a rich experience during the interview process and analysis. A limitation considered in regard to the collection of the qualitative data could be related to how the research would be impacted if the athletic trainer were to take another job and leave the university prior to the completion of the data collection and analysis.

Archival Data

During spring 2019, quantitative data related to the research study was collected through the use of a quantitative survey. The information collected was used as archival data to inform the scholarly practitioner on initially naming the problem of practice. The survey consisted of 11 multiple choice questions. Survey questions focused on anxiety, stress, and depression, along with collecting demographics and inquiring about any counseling services received. This data was collected prior to the study to determine foundational information regarding the topics previously listed and the student athletes' willingness to divulge information. This information was used to guide the current study by providing a foundation of the information obtained.

In addition, qualitative data was collected during spring 2019 in the form of one interview with an athletic trainer. The interview conducted was semi-structured and consisted of only open-ended questions. The interview provided substantial background knowledge related to the current problem of practice. The information retrieved confirmed that there is not a current

process in place to ask student athletes about their current feelings of mental health, nor is there a process in place for athletic trainers to follow when student athletes divulge they are experiencing feelings of a mental health illness. Developing a process and procedures to inquire about student athletes' mental health status would be beneficial.

Data Processing and Analysis

Quantitative Data

The data was analyzed and stored using Excel. The scholarly practitioner utilized the previously stated research questions to guide the study seeking to understand if and how many student athletes would self-disclose previous or current symptoms of mental health. Within the data collection, the scholarly practitioner organized the data in charts, which included analyzing the data between male/female, year identified in school, and team affiliation. Additionally, the scholarly practitioner hoped to collect information on the number of student athletes who take advantage of mental health resources, including counseling services on campus.

The first research question addressed the quantitative data collected. A percentage of “yes” answers were analyzed with particular consideration intended for question nine on the screening tool. Question nine would have prompted an immediate referral, with those numbers also being calculated. The number of referrals that occurred after the initial screening were intended to be a data point.

Qualitative Data

The qualitative data was transcribed using the OTTER application (app). This app turns voice conversations into notes to allow for quicker transcription. This tool also provided suggested themes within the conversation to begin the process of data analysis. The OTTER app is available through smartphones or other devices. Following the interviews, with the assistance

of the app, codes and keywords were determined to use for referencing. The findings were presented with common themes and recommendations for growth.

Role of the Scholarly Practitioner

The role of the scholarly practitioner was to analyze both the qualitative and quantitative data collected in the study. The scholarly practitioner provided instructions and/or trainings to the athletic trainers who were intended to administer the screening tool to the student athletes. The scholarly practitioner also collected and analyzed the responses provided by the students on the screening tool. Following an initial review of the quantitative survey data, the scholarly practitioner interviewed athletic trainers to obtain additional qualitative data. The quantitative data was discussed during the interviews to allow athletic trainers to elaborate on the student athlete results of the screening tool.

The scholarly practitioner had a unique role in that the research took place within the current work environment. The scholarly practitioner is currently a head coach of one athletic team with nineteen female athletes. There are no connections between the remaining student athletes and the scholarly practitioner. As a coach, the scholarly practitioner has authority over nineteen of the participants; however, the screening tool will be not given by the scholarly practitioner and the scholarly practitioner will not have any direct interactions with the student participants. The proposed study allowed for the athletic trainers to provide the screening tool and the follow-up procedures to the athletes without the scholarly practitioner being able to identify any student athletes within the study, including the scholarly practitioner's team. Due to the confidentiality of the information and environment provided to the student athletes, the scholarly practitioner was able to maintain a responsible distance between all student athletes.

Summary

In this chapter research questions, design, population, procedures, instrumentation, and data processing and analysis were discussed. In addition, ethical considerations, assumptions, limitations and the role of the scholarly practitioner were explained. The sample included participants for quantitative and qualitative data collection creating a mixed methods design for the research. Quantitative data was collected from student athletes and qualitative data was collected from athletic trainers. Both sets of participants are currently affiliated with ECU.

The data collection for this study used two different instruments. Quantitative data was collected using a previously developed screening tool. This proposed tool consisted of nine questions, all requiring yes or no answers. In order to reach all athletes and accommodate various schedules as athletes and teams returned to campus, the tool was given over several weeks. Individual responses from all student athletes were kept anonymous from the scholarly practitioner. The scholarly practitioner collected the qualitative data following the initial collection of the quantitative data by the athletic trainers. To collect the qualitative data sought, the scholarly practitioner conducted interviews with five athletic trainers which was determined to reach saturation. The interviews were semi-structured using open-ended questions.

The mixed methods study encompassed both qualitative and quantitative data to support the research questions. Chapter 4 will provide information related to the data analysis procedures utilized to analyze both the qualitative and quantitative data collected during the research study.

CHAPTER 4: RESULTS

This chapter will provide an overview of the data collection and analysis of this mixed methods study, followed by a detailed accounting of the results and key findings therein. A description of the participants for both the quantitative and qualitative portions of the study will be provided as well. An important consideration of this study is the Coronavirus pandemic that affected the world and, more specific to this study, East Carolina University (ECU) from March, 2020 into the following year, 2021.

Coronavirus Pandemic

The Coronavirus pandemic, also referred to as COVID-19 or simply COVID, began to have a drastic effect on the world, including ECU, beginning in March, 2020. COVID continued to affect what is considered “normal” operations at ECU through the remainder of 2020 and into 2021. The pandemic created significant impacts on ECU as a higher education institution, interrupting the spring 2020 semester, summer 2020 sessions 1 and 2, fall 2020, as well as spring 2021 semester. This study was impacted by the pandemic as it was initially proposed, creating conditions that required changes to the proposed procedures and data collection.

In North Carolina (NC), a mandatory stay-at-home order was issued and went into effect on March 30, 2020 through April 29, 2020, and was later extended through May 8, 2020 (NC Government, 2020). Throughout the summer months, NC Governor Roy Cooper moved the state through different phases of reopening and lifting restrictions.

In regards to ECU, the Coronavirus pandemic created a shutdown of ECU’s main campus at the beginning of March 2020, moving all classes to an online format and asking students to move off campus and return home. The ECU athletic department was also affected by this shutdown, canceling all competition from March through June 2020. In addition, the pandemic

also required a delay of student athletes returning to campus for the fall 2020 semester. In previous years, athletes would be permitted to return to campus and begin preseason procedures at the end of June while taking summer session 2 classes in person on campus. Due to new procedures and the restrictions in place at the time, student athletes did not return to campus until the last week of July. Along with a delay in returning to campus, a drastic change in return procedures required revisions to many areas of this study as originally proposed. The revisions to the procedures and data collection methods due to the pandemic are discussed in detail within this chapter.

Introduction

The purpose of this mixed method study was to examine the results of a preseason screening tool provided to student athletes at ECU. The screening tool was used to collect the quantitative data and to determine those student athletes who self-identified symptoms or signs of mental health illness. The NCAA recommends the screening tool used in the study for use with college-level student athletes. The scholarly practitioner examined the results from the screening tool and shared the team specific results with each team's assigned athletic trainers.

Following the collection of the quantitative data, interviews were conducted with five athletic trainers at ECU. The semi-structured interviews with the athletic trainers followed the completion of the screening tool with the athletes and were conducted in order to collect qualitative data. The athletic trainers analyzed the specific data pertaining to their assigned teams and answered questions during their interviews related to the collected data in this study. They also answered questions about their personal experiences with student athletes regarding mental health. Each athletic trainer has one or two teams for which they are responsible. The collected data was used to determine how to more accurately identify student athletes who may

exhibit concerns of mental health illness. The student athletes were then provided information on recommended resources, counseling services and other interventions to help them achieve overall wellness. Early identification and intervention are crucial parts of achieving the ability to perform at their highest potential as students and as athletes at the collegiate level.

Through analysis of the collected data, the scholarly practitioner will answer the following study questions as previously identified to guide the data collection.

Study question 1: *How does the implementation of a mental health pre-screening tool as part of collegiate preseason physicals affect the information athletes provide regarding mental health?*

- a. *Are collegiate athletes more likely to provide information regarding mental health with the implementation of the pre-screening tool?*
- b. *What type of mental health issues or symptoms do student athletes divulge to athletic training staff?*

Study question 2: *What are the perceptions of the athletic trainers related to the addition of the pre-screening tool as part of the preseason physical?*

- a. *What available resources do student athletes and/or athletic training staff members identify as being helpful?*

The mixed methods approach utilized in this study allowed a more thorough data sample to be collected, therefore providing the opportunity for accurate analysis of the data. The student athlete screening tool questions along with the demographic questions are listed in Appendix D. The interview questions for the qualitative portion of the study can be found in Appendix F. Table 1, located in Chapter 3, provides the study questions with the corresponding data points

from the screening tool and interview questions. This chapter will include a description of participants, data analysis, and a summarization of results from the collected data.

Participant Demographics

A description of the participants for both the quantitative and qualitative data are discussed in the following two sections. Details of the student athletes, including gender, year identified in school and team affiliation, will be provided. In addition, background information of the athletic trainers will establish an important overview of the experience and educational information of the participants.

Participants in Quantitative Data Collection Phase

The participants for the quantitative data collection are current student athletes at ECU. Table 3 provides the breakdown of the total number of student athletes who participated in the study by sport and gender. Appendix G shows the participant disaggregation by sport and current year in school.

In total, 136 current student athletes, both male and female, participated in the study, out of a possible 452 current athletes. A visual representation of this is shown in Table 3. This representation shows that the participants in the study equal 30.08% of the student athletes listed on the active roster for fall 2020. The number of female athletes at ECU is currently 215, while the total number of male athletes is 237. The total number of student athletes is larger than normal due to spring 2020 sports being cancelled as a result of the Coronavirus pandemic. Student athletes were given the opportunity to add a year of eligibility and stay enrolled at ECU to compete during the following year. With the current freshman class of athletes continuing to join their teams' rosters, the number of athletes currently on each team's respective roster has increased.

Table 3

Summary of Student Athletes by Gender

Sport	Female	Male	Total
Baseball	N/A	41	41
Basketball	16	18	34
Cheerleading	25	10	35
Cross Country	15	15	30
Dance Team	19	N/A	19
Golf	7	11	18
Football	N/A	118	118
Lacrosse	39	N/A	39
Soccer	33	N/A	33
Softball	23	N/A	23
Track and Field	24	24	48
Volleyball	14	N/A	14
TOTAL	215	237	452

All student athletes at ECU are between the ages of 17 – 24. All participants in the study were over the age of 18 and were able to provide consent as an adult to participate in the study. A variety of ethnicities and races are represented throughout the current student athletes; although to protect confidentiality and encourage participation, this data was not collected from the athletes who participated in the study. Each student's current year at ECU was also collected as part of the initial data gathered via the screening tool to provide athletic trainers the opportunity to compare answers from first, second, third, fourth or fifth year members on their teams. A student athlete's year in school academically could vary from the year of athletic eligibility. This could be the case if a student athlete has a redshirt year. A red-shirt year refers to an athlete who is enrolled full-time at a Division 1 school but does not participate in competition for the entirety of an academic year (Transfer Terms, n.d.). An example would be that a student could be in their second year of classes at ECU and did not participate in competition their first year on campus and therefore is considered a first year on their respective team, but a second year academically. The student's year in school is a more accurate indicator of the student's current age, level of maturity, and mental wellness development.

As visually shown in Table 4, the participants in this study included: 2 Baseball players, 6 Basketball players, 32 Cheerleaders, 12 Cross Country members, 19 Dance Team members, 9 Football players, 7 Golf players, 18 Lacrosse players, 6 Soccer players, 12 Softball players, 10 Track and Field members, and 3 Volleyball players. The male-only sports at ECU include Baseball and Football. Female-only sports are as follows: Dance Team, Lacrosse, Soccer, and Volleyball. Sports having both men and women athletes include: Basketball, Cheerleading, Cross County, Golf, and Track and Field. The tables in Appendix G provide a breakdown of the study participants from each team, including their gender, and indicated year in school.

Table 4

Quantitative Data: Student Athlete Participants

Sport	Study Participants Male	Study Participants Female	Total Study Participants	Total Team Members
Baseball	2	N/A	2	41
Basketball	1	5	6	34
Cheerleading	6	26	32	35
Cross Country	3	9	12	30
Dance Team	N/A	19	19	19
Golf	5	2	7	18
Football	9	N/A	9	118
Lacrosse	N/A	18	18	39
Soccer	N/A	6	6	33
Softball	N/A	12	12	23
Track and Field	3	7	10	48
Volleyball	N/A	3	3	14
TOTAL			136	452

Participants in Qualitative Data Collection Phase

The participants in the qualitative data collection phase include five athletic trainers employed by the ECU athletic department. The participants in the semi-structured interview phase of the study consented to the use of their actual names in the description of the data collected. The information in Table 5 includes gender, race, highest degree earned, years of experience and sport(s) for which each trainer is responsible.

The athletic trainers interviewed included four females and one male. Their years of experience in the field of athletic training range from five years to 19 years. This, however, is not necessarily an indication of their years of experience at ECU. All four females, who have fewer years of experience than the male participant, have earned a Master of Science degree in Athletic Training. The male trainer has a Bachelor of Science degree in Athletic Training. A Master's degree is now required to become a Certified Athletic Trainer (ATC). This requirement was changed seven years ago, when previously only a Bachelor's degree was required. This is in line with similar occupations, including Occupational Therapist, Physical Therapist, and Speech Therapist. Current certified trainers with a Bachelor's degree are grandfathered in, similar to the other programs previously listed, which all previously required only a Bachelor's degree. The majority of the athletic trainers at ECU manage between 30 – 40 student athletes on their caseload, which can determine the number of teams they are assigned.

Molly

Molly, a white female, has a Master of Science degree in Athletic Training. She attended ECU to earn this degree. She worked as a graduate assistant for one year with the Cheerleading and the Tennis teams and has since been with the Volleyball team and Dance team. Molly has a

Table 5

Qualitative Data: Athletic Trainer Demographics

Participant	Gender	Race	Highest Degree Earned	Years of Experience	Responsible Sports
Molly	Female	White	Master of Science in Athletic Training	6	Volleyball; Dance Team
Krista	Female	White	Master of Science in Athletic Training	7	Lacrosse; Women's Golf
Zac	Male	White	Bachelor of Science in Athletic Training	19	Baseball
Kelsey	Female	White	Master of Science in Athletic Training	5	Softball; Men's Golf
Allie	Female	White	Master of Science in Athletic Training	5	Football; Cheerleading

total of six years of experience in athletic training. Between the Volleyball and Dance teams, Molly is responsible for 33 athletes.

Krista

Krista, who is in her 7th year as an athletic trainer working with college students, is a white female. She has a Master of Science degree in Athletic Training and has been employed at ECU during all seven years of her career. Krista started her career at ECU with the Women's Basketball team and is now currently working with Women's Golf and Lacrosse teams managing 46 athletes.

Zac

Zac, a white male, has 19 years of experience in the field of athletic training. He began his career in athletic training working with a minor league baseball team for five years. Following his experience in minor league baseball, he has been at ECU as the athletic trainer for the Baseball team for 14 years. Zac earned a Bachelor of Science degree in Athletic Training at ECU and since then has worked specifically with baseball players. Zac is currently responsible for 41 athletes at ECU.

Kelsey

Kelsey is a white female who currently serves 34 athletes between the Softball team and the men's golf team. She earned a Master's degree in Athletic Training and spent one year at Butler University in Indiana working with football and women's swimming athletes. She has five years of experience in athletic training, all with college athletes.

Allie

Allie earned her Master of Science in Athletic Training degree from James Madison University (JMU). Following two years working with teams at JMU, she completed an internship

at Coastal Carolina University (CCU) with the basketball team. Following her work at these two schools, she came to ECU and began working with Cheerleading and Tennis. She is a white female and currently continues to work with the male and female cheerleaders and is an assistant athletic trainer with the football team. She currently manages 35 cheerleaders and assists with treatments and daily athletic trainer responsibilities with the football team.

Data Collection

Quantitative data collection occurred between August and September 2020 following the student athletes returning to campus for the fall 2020 semester. The semi-structured interviews with the athletic trainers to obtain qualitative data occurred between September and October 2020 (see Table 2).

Quantitative Data Collection – Student Athlete Screening Tool

The original data collection proposal intended for all student athletes to participate in a 9-question in-person screening tool during their preseason physical. Due to the Coronavirus pandemic, the data collection strategy was revised and approved through IRB to become an 8-question screening tool that was completed online (see Appendix D). The removed question stated, “I have feelings of hurting myself or others.” The nature of this question requires immediate professional follow up that could not be provided when moving the questions from in person to an online format. With this change, the screening tool became voluntary, rather than a part of each student athlete’s standard preseason physical requirement.

When student athletes return to campus each year, a physical exam is required. During the preseason physical, the screening tool questions in this study would have been added to the already established physical questions to assess the student athletes’ overall health. Even though the physical examination requirements are different for first-time student athletes and returning

student athletes, this screening tool would have been a mandatory addition for all athletes. Due to the returning timeline and altered procedures as a result of the Coronavirus pandemic, the screening tool became an online assessment and therefore made participation voluntary.

The data collection was also delayed by a few months due to student athletes returning to campus in phases and not all at one time as a full team. Typically, members of a team would all return to campus at the same time; however, team return was on a different timeline than in previous years due to precautions related to mitigating the spread of the coronavirus.

Student athletes returned in small groups in accordance with recommended precautionary measures provided by the state of NC, Pitt County Health Departments, the American Athletic Conference (AAC), and ECU. Precautionary measures, also known as COVID protocols, recommended that student athletes return to campus in small groups, receive a COVID test, and quarantine until a negative test result was received. Before student athletes were permitted to intermingle with each other and begin practices, these criteria had to be met. In addition, new protocols for entering buildings were established. For example, all temperatures were checked upon entering buildings, facial masks covering the nose and mouth were required, one-way entrances and exits were established in athletic buildings and hand sanitizer stations were installed in high traffic areas. In addition to these updates, a specific change for the football team was established with the creation of multiple locker room spaces. In an effort to socially distance the players from one another inside locker room areas, three additional locker room spaces were established for players within the athletic buildings. Football players were divided into small groups and assigned to alternate locker room spaces to encourage social distancing of the 118 players on the roster.

Athletes were brought to campus in small groups rather than all teams at once in an effort to prevent a large number of individuals who could be positive for the Coronavirus to return and quickly spread the virus to the rest of the athletes, coaches, and staff. In a typical year, the student athletes, beginning with the football team, would return to campus at the end of June to begin preseason workouts. The team members would have physicals completed and the team would stay on campus in student housing for several weeks. Following the football team's return, other fall sports teams, such as soccer, volleyball, cheer and dance, would return to campus. As a result, of the phased approach and the smaller groups arriving on campus during the fall of 2020, the return of student athletes was a lengthy process, spread over several weeks.

For this research study, student athletes at ECU were voluntarily invited to complete an online screening tool during the fall 2020 semester, which consisted of eight questions about mental health. To begin data collection, an email was sent to student athletes via their ECU student email address that included background information about the scholarly practitioner, in addition to details about the research study. The life skills coordinator, an ECU Athletics employee who works with all student athletes, sent the email. The email read as follows:

Dear Student Athlete:

Overall wellness, mental and physical, are crucial components in your overall ability to perform at the highest level. Kristin Jeffries, a doctoral student in the Educational Leadership program at ECU is one of our coaches and has been with the athletic department for 17 years.

For her dissertation research she is asking that all student athletes ages 18 and older complete the following questionnaire. This will take approximately 10 minutes and will

provide valuable data to help the athletic department and University better serve all student athletes with resources and guidance for overall wellness.

Thank you in advance for your participation.

In addition to the email sent out to the student athletes, the athletic trainers were asked via email to encourage their assigned athletes to participate in the study. Encouragement to increase participation allowed the scholarly practitioner to receive enough useful and accurate responses to provide valuable data to athletic trainers and other stakeholders. The email to the athletic trainers was also sent by the life skills coordinator and included the same background information about the scholarly practitioner and the research being conducted. The email included the following statement: “I would be very grateful if you could encourage your athletes to complete the questionnaire (it should only take about 10 minutes).”

The link to the online survey was included in the email to the student athletes. The survey was created in Qualtrics, which allowed the scholarly practitioner to collect and view responses instantly. Due to the nature of online data collection, all questions including the consent form were electronic. Data collection began with the first question asking participants if they were 18 years or older. If student athletes answered no, the survey immediately ended. If the answer was yes, the consent form followed when participants selected “next.”

The consent form (see Appendix B) included information about why student athletes were being invited to participate and how their participation in the survey could provide for future student athletes. In addition, the consent form provided the location of the study, what the study entailed, any risks involved in participating, and stated that the athletes would not be paid. Confidentiality was addressed in the consent form regarding who will know the students are participating, details about the security of the collected data, and a statement indicating that there

will be no penalties to the students if they choose not to participate. Finally, the consent form provided information about who to contact with questions, and next steps once deciding to participate. Once the student athlete read the consent form and selected the answer “yes” giving consent, the survey moved to the demographic questions.

There were three demographic questions asked of each participant. Each of the three questions included a drop-down menu with pre-determined response choices. The first demographic question focused on team affiliation, the next question asked participants to choose gender, male or female, and the final question requested the student’s year in school. Following the demographic identifiers, the eight-question screening tool began.

Each question on the screening tool was listed on a separate page and allowed the student athlete to answer each question “yes” or “no.” In total with all components of the Qualtrics survey listed, an estimated 10 – 15 minutes was spent by each athlete.

The student athletes were given two weeks to complete the survey. Following the 2-week timeline, the scholarly practitioner determined additional responses were necessary to provide accurate results. A follow-up reminder email was sent to the student athletes and athletic trainers asking for additional participants. The follow-up email contained the same information as the first email, but also indicated that the email was a reminder and included the statement: “the survey end date has been extended.” In addition to the reminder emails, the scholarly practitioner reached out to specific trainers with a personal phone call or email to request that they ask their athletes to participate. After another week, the survey was closed. In total, the survey was open for three consecutive weeks during August and September, 2020.

When the survey closed, the scholarly practitioner used Qualtrics to export the data into Microsoft Excel. Once in an excel spreadsheet, the data was sorted and manipulated to analyze

and interpret the results. The data was organized by team and then sorted to determine the number of “yes” and “no” answers to each question.

Following the organization and sorting of the data, an email was composed to each athletic trainer providing each team’s data for their review. The email sent to each trainer included a breakdown of athlete’s gender, year in school and “yes” or “no” responses to each survey question. The screening tool questions were provided to the trainers to allow them to use the data when working with students for whom they are responsible. In addition to this information, a total overview of all student athlete “yes” and “no” answers for each question was provided. This data provided to the athletic trainers established a baseline that could allow them to provide appropriate guidance to student athletes experiencing and self-identifying symptoms of mental health.

Qualitative Data Collection – Athletic Trainer Interviews

The interviews with the athletic trainers were conducted beginning with the first interview on September 22nd and the final interviews on October 8th. Four of the interviews were held in person, while one was conducted via WebEx, an online platform. The four in-person interviews were held in different locations, and each interview varied in length.

Prior to beginning each interview, the scholarly practitioner provided each participant with an informed consent form (see Appendix C). To begin, the scholarly practitioner began by thanking the participants for agreeing to be interviewed and participate in the research study. The topic of mental health is well known, frequently discussed and something that ECU takes seriously. Details of the study were discussed and participants were given the opportunity to ask any pertinent questions before signing the consent form and beginning the interview. Once the participant acknowledged that there were no further questions and signed the consent form, the

scholarly practitioner could begin the interview. Participants were also asked if they would consent to the recording of the interview. When the participant agreed, the recording of the session began. A copy of the consent form was provided to each participant that included contact information for the scholarly practitioner in addition to campus contacts.

Semi-structured interviews were used to collect data from all five participants. The scholarly practitioner focused on 12 pre-determined questions; however, other questions were asked based on the flow of the conversation and the responses given by the participants to the 12 specific questions. The pre-determined interview questions, located in Appendix F, were used as probing questions to allow participants to answer with details, rather than “yes,” “no” or other one-word answers. Throughout the interview, the scholarly practitioner asked additional, follow up, and clarifying questions to capture an accurate analysis of the information being shared. During the interview, the scholarly practitioner attempted to ensure that the participant remained comfortable and participated in the conversation utilizing encouraging responses. All interviews were audio recorded using the Otter application on a cell phone. The application has the capability to transcribe the interviews. In order to ensure accuracy of the results, the scholarly practitioner reviewed the transcription from the application of each interview. Following are locations, duration and details of each individual interview.

Molly

The first interview was conducted with Molly on September 22nd and was held in the Scales Field House conference room. The recorded portion of the interview was approximately 22 minutes with the transcription being nine pages in length.

Krista

The interview with Krista took 23 minutes to complete. The transcription of this interview was seven pages long with several long passages from the participant. Krista has a stand-alone office in the Team's building, which is a building located within the athletic complex. This building houses most of the Olympic sports. She also has a private workspace in the building's athletic training room. The interview took place in the athletic training room with no interruptions.

Zac

Zac's interview took place in his office, which is located in the baseball stadium's athletic training room. The interview took 16 minutes to complete with a written transcription totaling eight pages.

Kelsey

Kelsey works out of the Team's building athletic training room but has a private office across the hall from the athletic training room. The interview was conducted in her office and was completed in 22 minutes. The transcription of this interview was seven pages.

Allie

The interview conducted with Allie was virtual, due to risk of exposure with the Coronavirus. Allie's office is located in the Ward Sports Medicine Building athletic training room utilized by the ECU Football team. Due to the high risk of exposure and the team currently in their competitive season, only essential personnel were allowed in the training room. In addition, essential employees were asked to limit any face-to-face interactions that were not necessary. Due to these restrictions and an abundance of caution, the interview was held in a

virtual manner. This interview took approximately 20 minutes and was transcribed in seven pages.

At the conclusion of each interview, the scholarly practitioner thanked each participant for their time and dedication to their students. All participants were reminded of the contact information they had received and encouraged to follow up with the scholarly practitioner if they wanted to share any additional information. In the week following the interviews, the scholarly practitioner delivered a handwritten thank you note to each interview participant to thank them for their willingness to participate and their commitment to their student athletes' mental wellness.

The interviews were conducted over a three-week period beginning in September 2020 with completion in October 2020. The process included providing the quantitative data results to the athletic trainers, contacting participants, scheduling a time to meet, conducting the interview and follow-up thank you cards. The interviews ranged from 16 minutes to 23 minutes. The length of the interviews differed due to the participants' willingness to engage in conversation and elaborate on a particular topic. In addition, the later interviews were shorter due to the scholarly practitioner acknowledging saturation of data, which became evident from both the pre-determined questions and the general discussion with each participant. Other factors to consider with regard to the length of the interview included the athletic trainers' passion and knowledge about the topic of mental health. In total, approximately 3.5 hours was spent coordinating and conducting the semi-structured interviews.

Quantitative Data Analysis

The quantitative data collected from the student-screening tool was manipulated in a Microsoft Excel spreadsheet. When the data was available, the scholarly practitioner was able to

organize the data and evaluate it in several different ways. Considerations for breaking down the data involved looking at the variety of ways that the data could be viewed and the benefits the results would have to stakeholders involved with the student athletes.

The first consideration was overall participation. The total number of athletes who participated in the study is broken down by gender and represented visually in Figure 1. Following the comparison of overall participation by gender, the year identified at ECU by the student athlete was the next data point to consider (see Figure 2). The final consideration when looking at the total number of participants involved a breakdown of student athletes by team affiliation (see Figure 3).

After breaking down the data by demographic identifiers provided by the student athletes themselves, the response of “yes” to each of the eight questions was reviewed. An overall view of “yes” responses to the eight questions was considered first. This provided an indication as to the number of student athletes experiencing symptoms with a holistic lens without initially diving into the specifics of each question and symptom they may be experiencing. Figure 4 shows a visual representation of the “yes” responses for each question compared to the total number of participants. Upon review of responses to each question, overall more student athletes indicated that thinking about things over and over was a symptom that they noticed related to their mental health with 103 “yes” responses, which is 76% of the participants. An important observation within this data point shows that the percentage of “yes” responses increased based on the student’s identified year in school. Sixty three percent of first year students answered yes, whereas 100% of fourth and fifth year participants responded “yes.” Being anxious and/or nervous followed with 70 participants selecting “yes” to the question related to this symptom.

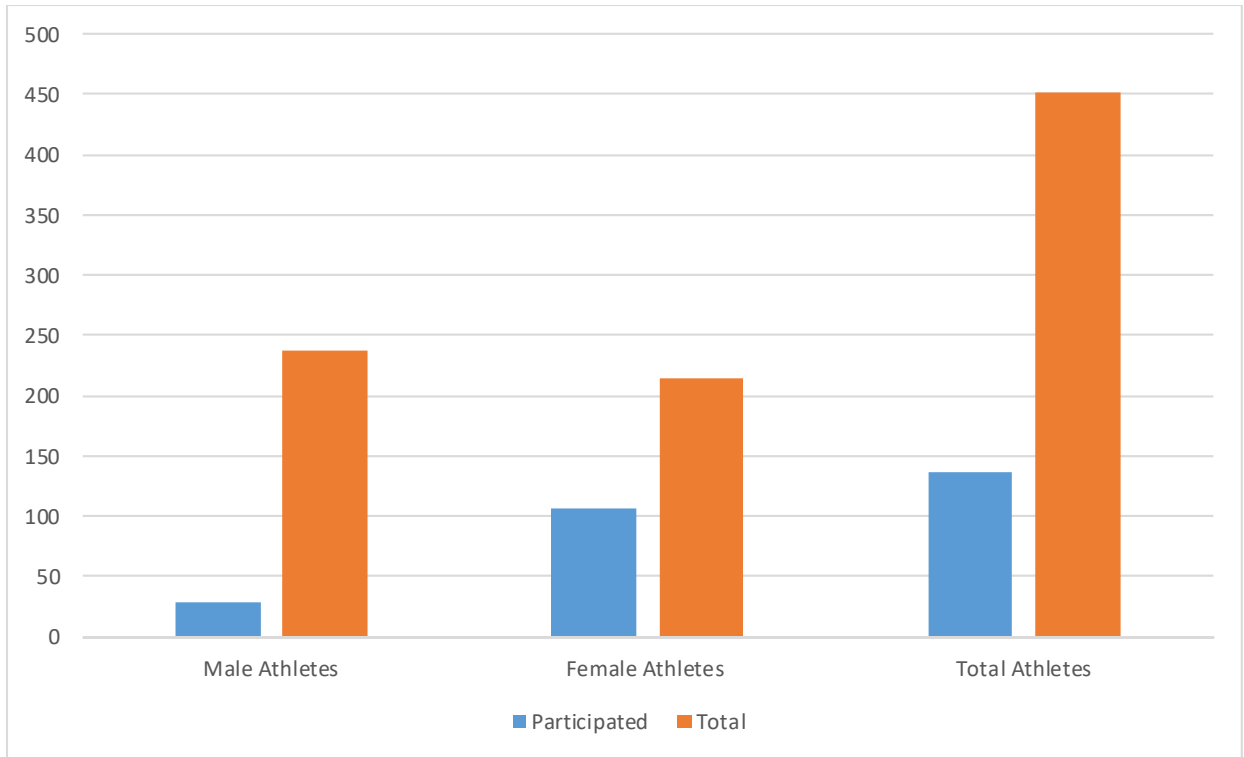


Figure 1. Student athlete participants including a breakdown of males and females.

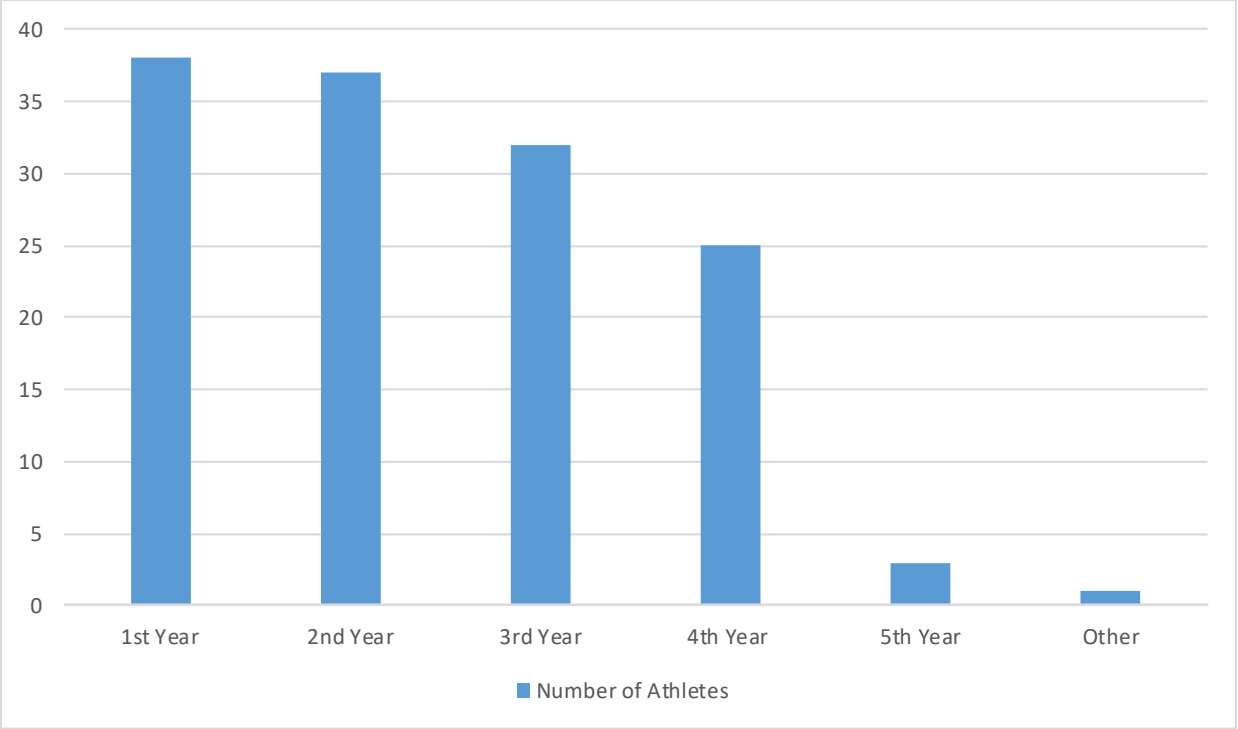


Figure 2. Student athlete participants with a breakdown by identified year at ECU.

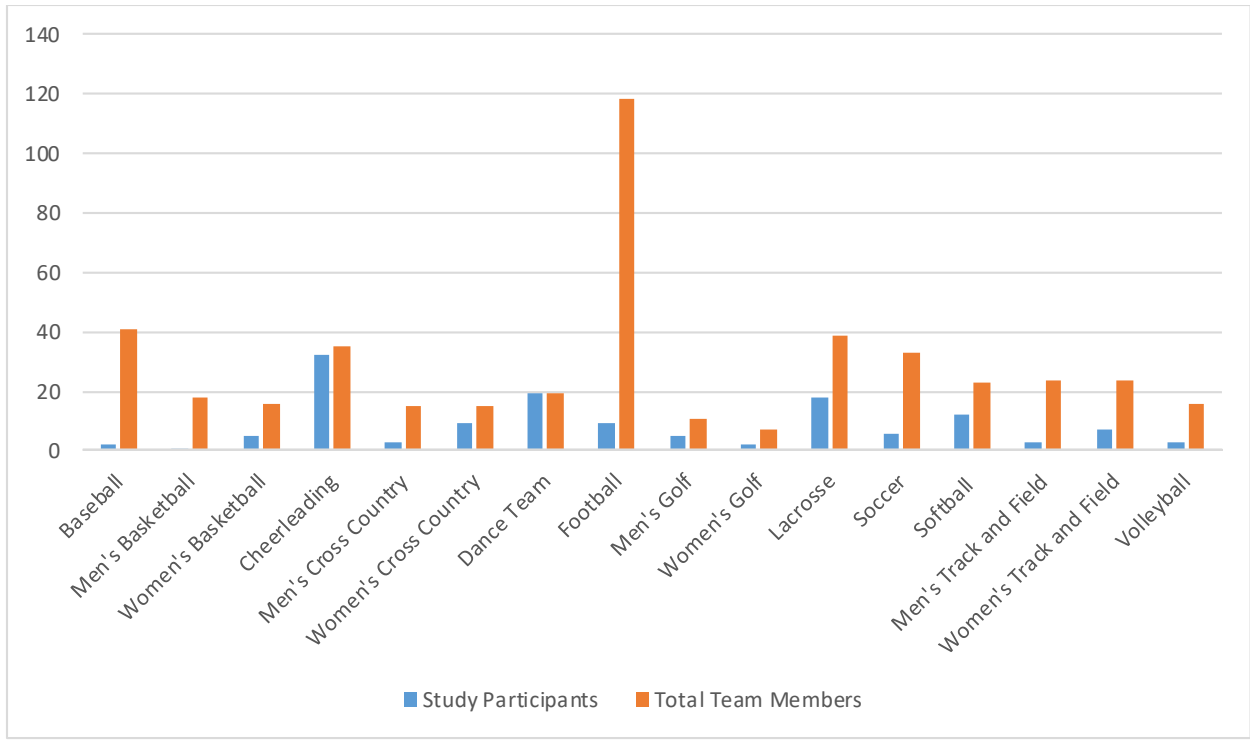


Figure 3. Student athlete participants with a breakdown by team affiliation.

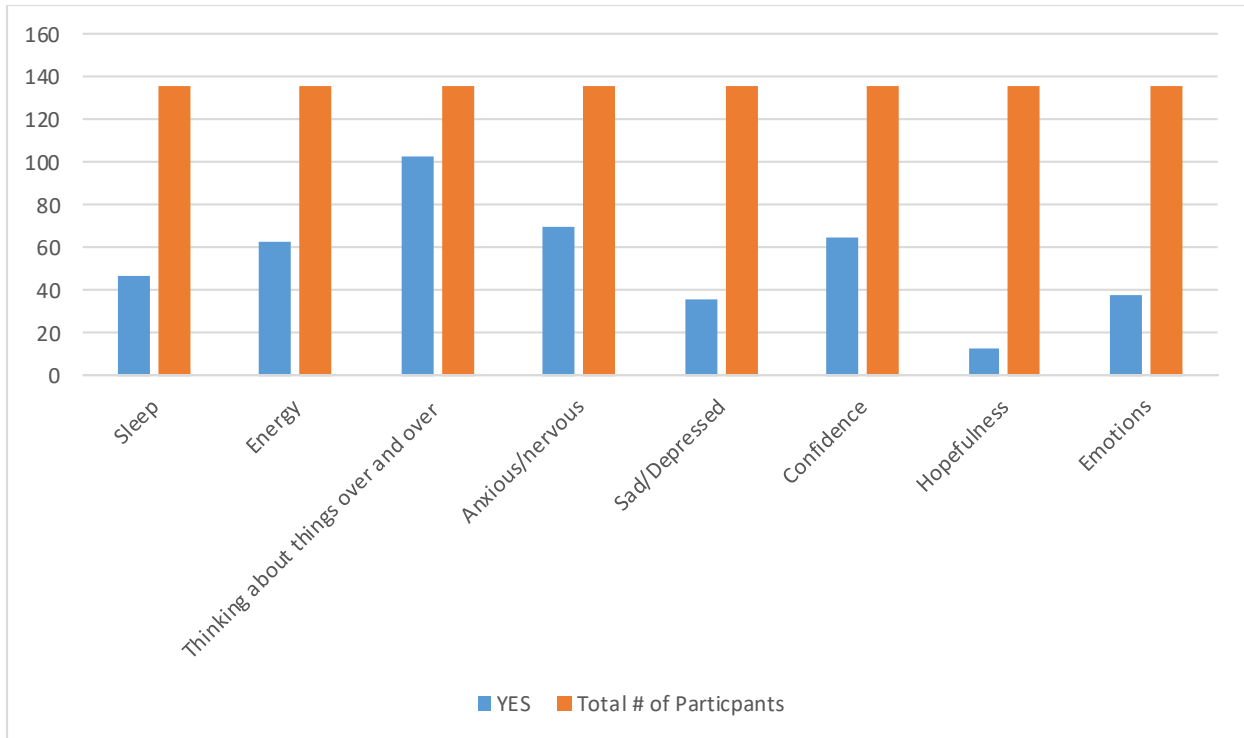


Figure 4. Screening tool results from all student athlete participants at ECU.

Additionally, when considering the responses to the questions based on gender, females submitted a “yes” response to thinking about things over and over most frequently, while more males indicated that lack of energy affected their mental health wellness. In Figures 5 and 6, the total “yes” responses by female and male participants are shown in a visual format.

The data was first examined by the responses to the screening tool questions relative to the students’ identified year in school. Looking at this data first provided a different, although not particularly insightful, perspective. The breakdown of this data is shown with “yes” answers to the eight questions by year identified at ECU. Student athletes were able to choose first through fifth year, or other, as their year identified at ECU. With only three students selecting fifth year and one selecting “other,” this information appears not as relevant or impactful to the overall study. This breakdown is shown visually in Appendix H.

After reviewing the total number of participants and looking at the overall number of “yes” responses, the scholarly practitioner looked at each specific team and the responses for each. This information provided the most relevant perspective to the specific team athletic trainers, which allowed them to move forward with finding resources and reaching out to their athletes. A breakdown of each team’s “yes” responses is shown in Appendix I. Overall, the data provided by the student athletes was manipulated in a variety of different ways. The most relevant data collected, when considering the study questions, was related to the total number of participants. The data represented about one third of the current student athletes on the fall 2020 roster. In addition to the total number of participants, the most useful data when reviewed by the athletic trainers was the number of “yes” answers to each question by team. This breakdown specifically identified the targeted mental health symptoms and provided the knowledge for

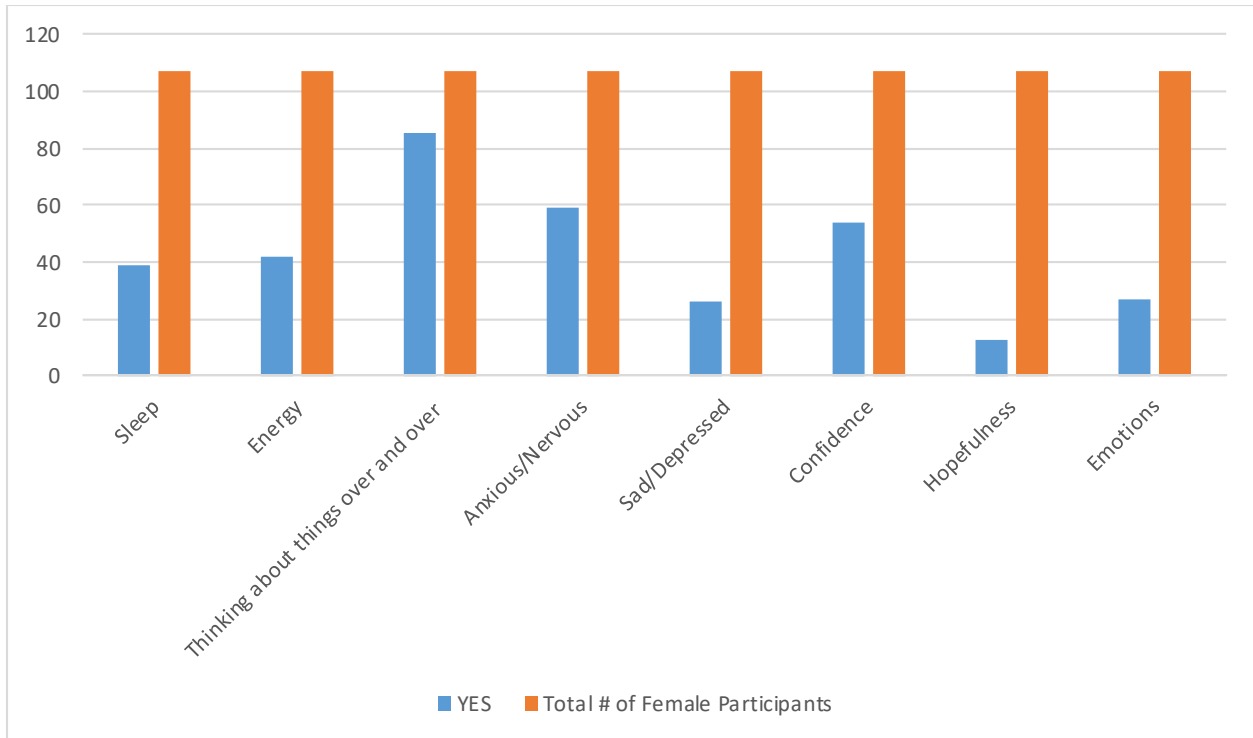


Figure 5. Overall screening tool results for female student athlete participants at ECU.

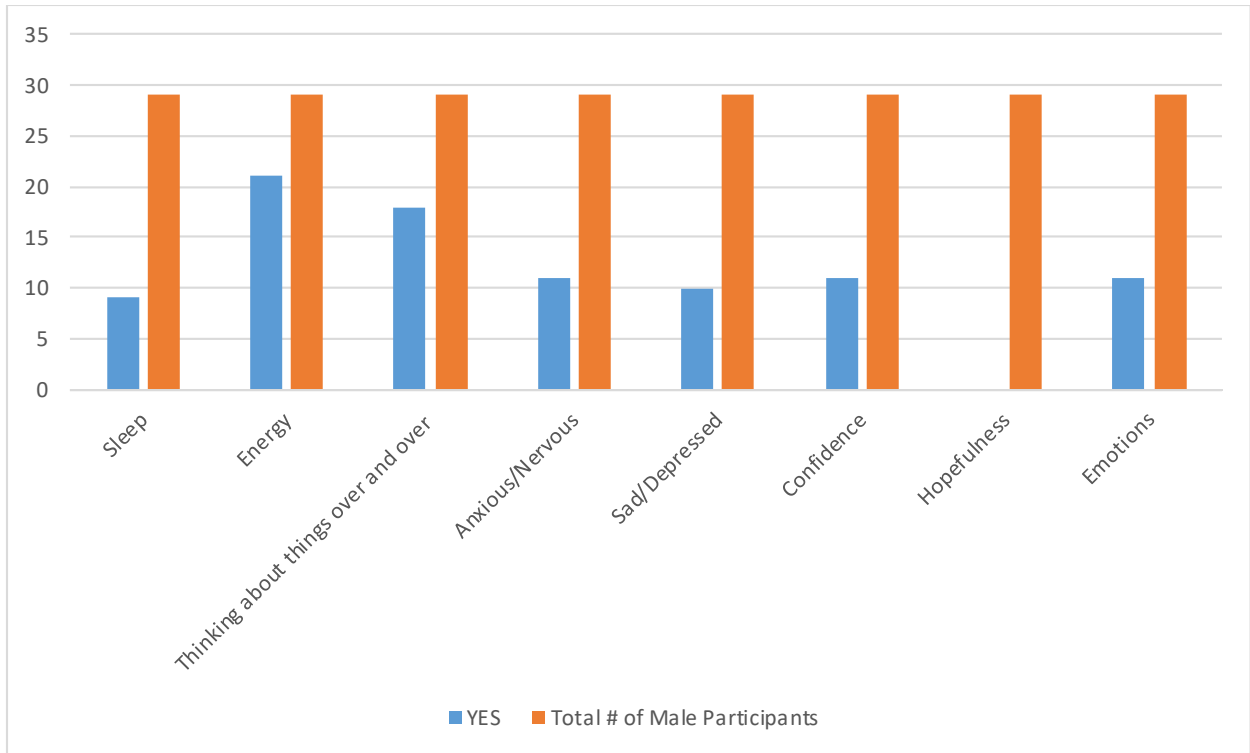


Figure 6. Overall screening tool results for male student athlete participants at ECU.

stakeholders to take action. Additionally, the breakdown of reported symptoms provided to the athletic trainers can also be impactful information for the team doctor and coaches. A holistic view of the “yes” answers for all teams, regardless of gender or year identified at ECU, is beneficial, not only to the aforementioned stakeholders, but also to athletics administration. With the knowledge of the symptoms student athletes have identified, resources can be provided in an effort to help student athletes achieve overall wellness and their best academic and athletic performance.

Qualitative Data Analysis

The information obtained from interviews with the athletic trainers at ECU provided the qualitative data for the study. The interviews were recorded and timed using the Otter application on a cell phone and were initially transcribed using the same application. Once transcriptions were completed through the application, they were printed and reviewed by the scholarly practitioner for accuracy. The printed copies were used for revisions and notetaking while reading through and listening to the interviews several times. Corrections were made by hand and were updated on the transcriptions. This allowed for an accurate written verbatim transcription of each interview.

When reviewing the audio recordings, the scholarly practitioner identified codes that emerged from first impressions. “A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence capturing, and/or evocative attribute for a portion of language-based or visual data” (Saldaña, 2016, p. 4). This process provided the scholarly practitioner the opportunity to decipher the interviews and determine appropriate codes and patterns. “A pattern is repetitive, regular, or consistent occurrences of action/data that appear more than twice” (Saldaña, 2016, p. 5). “They become more trustworthy

evidence for our findings” (Saldaña, 2016, p. 6). The scholarly practitioner must look at the study’s findings from different angles, using their own lens and filter.

The Otter application identifies repetitive words as a guide to begin the process of coding and identifying themes. The scholarly practitioner began with these suggestions and determined the most relevant and beneficial identifiers that summarized and captured the essence of the information provided by the athletic trainers. Their shared accounts presented are from lived experiences through active work in college athletics specifically at ECU and with student athletes. The five themes were developed to expand and explain the identified codes selected. The themes identified were present in all five athletic trainer interviews with slightly different verbiage between the trainers. This process of reviewing transcriptions and selecting codes concluded with the identification of five themes, analysis of the data and interpretation of the findings. The codes and themes identified best summarize the obtained qualitative data and are listed in Table 6.

Importance of the relationship created between student athletes and athletic trainers

The main focus of an athletic trainer’s job is the health, safety, and well-being of the student athletes. This includes, but is not always limited to, the physical and mental wellness of the students. After identifying several codes that emerged within the collected data, a theme was developed to summarize the primary focus of the provided information. The importance of the relationship created between student athletes and athletic trainers emerged as the theme.

Considering the student athlete as a consistent data point to review, building relationships was a pattern that provided evidence of the importance of the student athlete as a theme. Zac stated in his interview, “A lot of times it’s more getting to know the athlete than just going off the [information from] the physical form.” Additionally, Kelsey stated, “Building a relationship

Table 6

Qualitative Data Codes and Themes

Codes	Resulting Themes
Athlete Student Athlete Relationships Feeling comfortable Impact on change Stigma of mental health	Importance of the relationship created between student athletes and athletic trainers
Coaches Relationships Compassion Well-being Experience Acceptance of mental health	Importance of the relationship created between student athletes and coaches
Counseling Counseling center Bob Valuable resources Consistent Reliable Accessibility Comfortable to attend appointments	Collaboration to provide counseling resources on campus in support of student athletes
Mental health Importance of identification Wellness Symptoms Diagnosis Issues and concerns	Focus on mental health and the importance of identification
Team Doctor Physician Dr. Armen Collaboration Dependable and reliable Well-being of the student athlete Communication Expertise and experience	Collaboration with team doctor for the benefit of student athletes

with your athletes is super important. So they feel comfortable coming to you, and they'll talk to you about it [counseling] after...so you can continue to follow up with them." The student athlete results from the study's screening tool is vital information for the athletic trainers to consider when providing guidance and educating the athletes in regards to mental health.

This study's focus is not only on the student athletes but also about providing a purpose to create better awareness and understanding, while establishing policies or procedures to benefit current and future student athletes at ECU.

Molly shared an observation about "student athletes advocating for themselves." Allie reiterated the same when making the following statement:

The student athlete has to do it on their own. There's kind of the step of talking to you [the athletic trainer] about it or someone about it but then once they get the resources and information they've got to take the next step and call [the counseling center] themselves.

The identified theme of athletes, also referred to as student athletes, has been selected to acknowledge the impact that these students can have on creating change in an environment that has previously had stigma and little to no acceptance of mental health.

Importance of the Relationship Created Between Student Athletes and Coaches

In considering the pattern of "coaches" as a code, the scholarly practitioner envisioned a different angle in viewing the data. The importance of the relationship created between student athletes and coaches was an unexpected theme that became relevant when reviewing the five interview transcriptions. This area did not have targeted questions for inquiry originally outlined for the interviews, but was discussed as an important attribute considered by all the interviewed trainers.

Student athletes have a relationship with their athletic trainer but also with their coaches. Although coaches focus on game strategy, wins, and losses, they also tend to treat their athletes like their own children and have a caring relationship with them. This includes being compassionate and knowledgeable about their well-being, including their academic success, physical and mental wellness. Krista stated, “My coaches, are great about, she recognizes [mental health concerns] a lot of times before I do for sure. Or they’ll [student athletes] say something to her.” Zac spoke about the relationship between the coaches, athletic trainer, and student athlete:

The head coach and coaches have to feel like they trust me and the players... they trust me, so I always say that if you [coaches] want to know what’s going on with your team, ask your athletic trainer because they know both sides. A lot of times it comes to a coach seeing something and talking to the players, and the player saying, well I’ve got this going on, and this going on. Then the Coach comes to me.... We’re gonna get you the help you need.... But I mean they’re [coaches] receptive, yeah I mean, obviously we want to take care of our own and make sure they have what they need.

In addition, Kelsey spoke about the experience with her coaches:

Our Coach is really good about it [understanding mental health concerns].... I usually try and have the athlete go to the coaches [themselves]. First, I’ll give her a forewarning, saying hey, you know, this is going on, and she’s, very accepting of it...Our coach, I think she understands, they take a week off, [she will say], do what you need to do. Yeah, I haven’t had any problems with that. My coaches are great.

An observation from the interviews as it relates to coaches is that the age of the coach could have a correlation to the acceptance of mental health concerns as it pertains to student

athletes. “I think the coaches understand mental health, it also comes with how young and old they are,” Molly said. Allie’s observation of age as it relates to coaches is as follows, “Younger coaches understand when the kids were stressed out because of school, or when they were stressed out because of stuff was going on at home, or just that they weren’t being listened to, I guess, by the older coaches.”

Another consideration shared by the athletic trainers was in regard to a coach’s gender. Molly stated:

Honestly female coaches, for some reason tends, it [mental health] tends to be a topic easier to talk about with the females than it is with the males. Either they don’t like to talk about it because they have that stigma to it or want their coaches to know. So it’s been fairly easy to be able to say to the [female] coaches, like it’s a good day, or she’s stuck in her house... and they’re pretty understanding.

Football as a sport and football coaches tend to have their own stereotypes and stigma surround them. Allie has only been working with football since the fall 2020 season and shared this observation. “They [football coaches] want to create this culture of being tough and pushing through things. I think that makes people scared to speak up.”

In conclusion, coaches undoubtedly play a vital role in a holistic approach of the student athlete’s mental wellness. The athletic trainers have one of the closest relationships with not only student athletes, but also with coaches. Coaches communicate with athletic trainers every day, sometimes multiple times a day when a student’s physical or mental health are not at a premium for the best performance in practice and competition. Therefore, the consideration of coaches as a primary theme is pertinent in breaking down the relevant qualitative data from the athletic trainer interviews.

Collaboration to Provide Counseling Resources On Campus in Support of Student Athletes

Interview participants perceive the ECU counseling center on campus as a consistent and reliable resource. The interviewed athletic trainers and the team physician heavily lean upon this resource provided on main campus. The terms “counseling,” “counseling center,” and “Bob,” referenced within the interviews, are very closely related, and infer the same valuable resource. The collaboration to provide counseling resources on campus in support of student athletes was selected as one of the five themes.

Some trainers referred to students receiving counseling and others referenced students going to the counseling center. One of the counselors who works in the ECU counseling center, assigned to ECU athletics, is Bob Morphet. In Krista’s interview, she referred directly to Bob and the partnership that she and her coaches have with him. Krista stated, “I am able to give Bob Morphet’s information to them [the student athletes], and I can always email him directly and give him the student’s email address, and then he’ll reach out to them.”

The athletic trainers shared the accessibility of the counseling center and the benefits that students see once they take the step to attend a session. Krista stated, “I know I have a lot of student athletes on my team currently that do regularly speak to someone at the counseling center.” She also stated:

I think they [student athletes] maybe realized how helpful it is for everything. So I haven’t had too much of an issue with noncompliance. I kind of say, making the resources known. ... I think there are times when it’s suggested, and kids don’t take advantage of it, whether, you know, they’re not comfortable or don’t [feel as if they] need that.

Kelsey referenced her process of suggesting the counseling center to her student athletes.

I made sure to establish some sort of relationship with them. So, they're, comfortable enough to ask me for a counseling appointment. I usually tell them, the first time ... it might be weird. It might not, you might not get out of it what you want, but it's not gonna hurt you.

When students see a counselor at the counseling center, the appointment is kept confidential. The athletic trainer, coaches and/or teammates do not know anything about the session that the student attended or continues to attend unless they share themselves. Molly described this scenario, "...if they end up seeing ECU counseling, we don't get an update from them. They don't share any information with us at all. So it has really been me asking the athlete, did you go to your appointment today?"

From reviewing the interview transcriptions, the frequency of referencing the counseling center became evident. With this observation the scholarly practitioner identified this as a major theme and relevant in presenting the analysis of the qualitative data.

Focus on Mental Health and the Importance of Identification

The focus on mental health and the importance of identification is the overall premise of mental health wellness for student athletes. Participants referenced matters of mental health in a variety of different contexts to the scholarly practitioner during the interviews. The shared information of specific mental health symptoms and diagnoses is relevant in providing assistance in answering the study questions.

The discussion around this topic has increased, developed more awareness, and has become more noticed and accepted. Because of this, student athletes specifically have reached out and have received the treatment they need. Allie spoke about the stigma and that more people are speaking out about mental health.

I think the more people that have talked about it and the more student athletes who have come out of school and talked about their experiences in school with mental health and just struggling with it, I think that has helped kids speak up more, definitely.

In regards to student athletes noticing or reporting their own symptoms, whether it is on a screening tool or recognizing a change in their own behaviors, Zac acknowledged how his athletes many times do not recognize their mental health warning signs or symptoms.

[Mental Health] to me it's like concussions, you don't know what's there until somebody says something or you [the athletic trainer] see it, or they see them acting weird. They may not even know they have mental health issues or concerns at the time. I know we have the mental health coaching, like the fact sheet that we give them in the beginning of the year during our compliance meeting and then it's always on their phone through Teamworks so they have all of the numbers and resources that they may need.

Similarly, Molly shared her perception of how athletes feel when they are dealing with a mental health illness.

They feel guilty when it's a physical injury. But that's a whole other thing, for sure. So, it's not tangible. You can't really touch it and see, right, you can see bruising, you can see swelling, but you can't really see [a mental health condition].

Allie shared experiences from other schools where she also worked as an athletic trainer. Her perception of how other schools have responded to mental health concerns is something that she feels could be implemented at ECU. Allie stated, "It was just all about mental health and it was such a big thing and making it more of like it's a normalized thing to talk about."

Collaboration with Team Doctor for the Benefit of Student Athletes

In addition to the already established theme related to the counseling center, the collaboration with the team doctor for the benefit of student athletes is the final identified theme from the qualitative data. The team doctor/physician, Dr. Armen, was referenced throughout the interviews and described as heavily relied upon, and extremely involved in the care of all student athletes. The interview participants perceive him as dependable, reliable and crucial to the well-being of the student athletes. Due to the importance, value and involvement of the team doctor, this was determined to be a major theme.

Dr. Armen works very closely with the athletic trainers and communicates with them daily in regards to student athletes. During the interviews, the trainers referenced “team doctor,” “team physician,” and “Dr. Armen,” by name, all referring to the same individual.

As one of the first steps when student athletes ask for help, “I try to get them to see the team physician,” Molly stated. She continued to say:

And then also offer ECU Counseling. So and those are kind of the next steps. And I haven't yet had someone say no to any of that. No, I don't want to see Dr. Armen, but I will go see the counseling center. I don't want to go into the counseling center, but I will see Dr. Armen and he somehow convinces them to go see the counselor.

Krista spoke about her current student athletes and their willingness to reach out and ask for help: “We have had a lot of people recently asking to meet with someone at the counseling center or doctors and such.”

The athletic trainers rely heavily on Dr. Armen, his expertise, and his experience. The trainers spoke of reaching out to him as the number one point of contact. “That's where we kind of go through Dr. Armen and he kind of gives us his opinion on it and we branch out to

counseling or medication route or time off, what we need to do there.” Allie discussed the beginning of the year when Dr. Armen reviews all of the student athletes’ physicals. She stated:

So the next step is just talking to them saying like, hey, the doctor went through this with you saw that your numbers were a little bit high. It wouldn’t be a bad idea to maybe talk to someone at the counseling center.

The athletic trainer follows up on all recommendations from Dr. Armen and stays in communication with each student athlete regarding their progress.

When identifying primary themes, the context and importance of the concepts in relation to answering the study questions were considered. In addition to the five determined themes, the following key words were contemplated: symptoms, procedures, teammates, protocol, physical, athletics questionnaire, concussions, recommendations, and struggle. These key words were not present in all five interviews as the identified themes were; however, several participants mentioned them. Although they are important and have significance to the overall collection of qualitative data, they do not provide enough evidence to assist with answering the study questions. A review of the data analysis found in the following Results section will provide answers to the study questions that guided the data collection. In reviewing the analysis of all collected data, the following Results section will provide answers to the study questions.

Results

The results section includes discussion and evidence of the data collected as it pertains to the two study questions and subsequent sub-questions. A mixed methods approach was used in the collection of data, which was determined to provide the most well-rounded information. With the collection of quantitative and qualitative data, the combined information was reviewed to determine the student athletes’ willingness to identify symptoms of mental health. Symptoms

they were willing to share were also reviewed. In addition, the data confirmed the current procedures within the athletic department at ECU and allowed for considerations of changes and improvements.

The scholarly practitioner evaluated the data related to the number of student athletes who self-identified the presence of mental health concerns by answering “yes” on the screening tool to the eight questions. The qualitative data collected through the interview process with the athletic trainers was used to provide supplemental evidence to support the data collected from the screening tool.

In order to answer the established study questions and subsequent sub-questions, both sets of data were utilized. Together the collected data provided evidence supported by tables, figures, established themes and direct quotes from the interviewees to answer the proposed study questions. In conclusion, the results were able to provide a defense of the established problem statement.

Analysis of Study Question # 1

Study question 1 addresses how the implementation of a mental health pre-screening tool as part of preseason physicals for collegiate student athletes could affect the information the athletes provide regarding mental health. To investigate this study question, the analysis of the quantitative and qualitative data were utilized.

Study question 1: *How does the implementation of a mental health pre-screening tool as part of collegiate preseason physicals affect the information athletes provide regarding mental health?*

The implementation of mental health questions as an added aspect of the preseason physical provided student athletes the opportunity to self-identify feelings that could reflect

symptoms of mental health illness. By providing the screening tool as a platform for student athletes to share how they are feeling, it gave them an outlet and the opportunity to take the first step in sharing with their athletic trainer and team doctor. Participation in this study was optional but provided the athletes the opportunity to reflect on their behaviors and/or symptoms and share them with important stakeholders. Based on participation numbers shared in Figure 1, approximately 30% of current student athletes participated in the study. Participation numbers by gender are as follows: 49.77% of female athletes and 12.24% of male athletes participated. Although participation was optional, almost 50% of female athletes responded to the survey request. This could indicate that female student athletes are more willing to share how they are currently feeling in regard to their mental health. The male participation numbers are low and can be interpreted in many different ways. One assumption could be that male athletes do not want to recognize their symptoms, or if they are experiencing symptoms, they do not want to share them, even anonymously.

Another consideration is the student athletes' identified years in school. In reviewing the overall participation numbers, students who identified as a first year (28%) or second year (27%) at ECU were more likely to participate. Younger students may be more eager to please and may feel obligated to participate in optional activities, such as this study. The number of participants' decreases as the year identified at ECU increases, with fifth year and "other" identifications being less than 1% of the participants.

- a. *Are collegiate athletes more likely to provide information regarding mental health with the implementation of the pre-screening tool?*

According to the athletic trainer interviews, four of the five trainers felt as if student athletes would provide information in regards to their mental health on a preseason screening

tool. Krista stated “Yeah, based off of the responses you sent [from the study results], I definitely think that they were [honest], which is good. But yea, also slightly alarming.” Kelsey felt like the questions would not entice her athletes to be more open and honest. She stated in the interview that she felt like there was still a strong stigma around mental health and that her athletes are not always forthcoming when exhibiting symptoms or asking for help. “Stigma, is, I think, is still there. You know, I’m tough, I shouldn’t have these problems.”

All five trainers shared stories of student athletes reaching out on their own to the athletic trainer for mental health help, specifically setting up counseling appointments. When questioned specifically about the 2020 season, considering the Coronavirus pandemic, all of the athletic trainers felt as if their student athletes’ symptoms have increased. In general, there have been more inquiries to receive help and more acknowledgment of symptoms within the students. “Yes, and I would say yes, a lot of them were struggling a lot with quarantine. But I definitely say it has definitely hurt them a lot for I feel like they feel like they’re alone. And they’re stuck,” Molly shared. Also, Kelsey felt as though numbers were higher for the beginning of the year. “I think I’ve had three since the beginning of school, which I think around this time, I don’t have that many early.”

b. *What type of mental health issues or symptoms do student athletes divulge to athletic training staff?*

As part of the interviews, the athletic trainers were asked about and shared their experiences with student athletes voluntarily divulging mental health concerns. They indicated that most athletes do not necessarily provide a specific diagnosis, but instead share feelings or symptoms they are having not knowing that it is mental health related. Some of the concerns they shared include feeling stressed, tired, anxious, upset, or unmotivated. Allie stated, “I’m

proud of them for saying, I often feel sad or depressed and actually speaking out about that.” Similarly, Zac spoke about his experience with his athletes sharing feelings about being anxious and wanting to get help, specifically “a couple of guys with anxiety issues.” Molly spoke about several concerns her student athletes have brought up in discussions with her. “But it’s mainly been trouble sleeping. Being unfocused or unorganized. A sense of apathy. I don’t care about my schoolwork, I don’t care about my sport, have been the major ones.”

Overall, student athletes do divulge symptoms of mental health concerns to the athletic trainers. Based on the experience and statements of the trainers, it appears that building relationships with the student athletes creates a trusting bond. This allows for open communication between the two parties and ultimately benefits the student athletes’ ability to obtain any help needed to achieve mental health wellness.

Analysis of Study Question # 2

Study question 2: What are the perceptions of the athletic trainers related to the addition of the pre-screening tool as part of the preseason physical?

Overwhelmingly all five athletic trainers agreed that some series of mental health questions should be answered by the student athletes each year. Molly shared her thoughts about wanting to include mental health questions on the beginning of the year physicals for all student athletes, including incoming freshman, transfers and returners. Molly stated:

I certainly would, would like to see that added, because that would be nice. Not just to first years but to returners. Because things change, actually family scenarios change year to year, I think, you know I can’t remember [exactly] but they say, a lot of mental health comes out in your early 20’s. So that’s college.

There was disagreement however, between the athletic trainers about the frequency of providing a questionnaire related to mental health. Kelsey felt like the answers at the beginning of the season would not necessarily stay the same as compared to results from questions asked at a different time of year or asked throughout the year. She felt that answers would change based on the student athlete's schedule of being active and in season. Kelsey felt that asking mental health and wellness questions a month into the season would be more beneficial. She stated:

Honestly, I think, especially in the pre screener, there's like a million questions. I don't know if they, answer it honestly. And then also just like things change, you know, once they start doing sporting activity, like, when they do these questions, they're not in season. They're not waking up early, their body's not tired, you know. They're probably good at the time that [they answer] these questions [preseason questionnaires], but then it changes... their situation changes.

Kelsey continued on with the recommendation to "have a questionnaire every so often come out, and just seeing how they're doing. And you would definitely be able to see [the answers] fluctuate between that stuff."

The current Lacrosse coach does a mental health screener with her athletes once a week. This is independent from the athletic department; however, she feels very strongly about mental health and wants her athletes to be honest and communicate about their well-being. Krista shared, "she [the Lacrosse coach] had them develop a weekly check-in questionnaire kind of with Bob, that they were using, I guess, most of the time we were gone [for COVID]...they still do it every single week."

There was also a perception from the trainers that the current timing of this survey, with the Coronavirus pandemic, was not the best. Allie shared, "Everyone's just stressed out and I

don't know if that has to do with COVID right now and everything that's going on." Preparation for this study and collection of data started two years ago. With the Coronavirus pandemic beginning in the United States in March 2020, there were major adjustments to student athletes' normal routines. Adding an additional survey during the fall 2020 semester did not seem like an ideal time for the athletic trainers.

- a. *What available resources do student athletes and/or athletic training staff members identify as being helpful?*

When discussing available resources for athletes with mental health concerns, the athletic trainers mentioned the team physician, Dr. Armen, and the ECU counseling center most often. These two are closely related and work together as a partnership with the athletic trainer to determine the best course of treatment for the student athlete's mental health concerns.

The interviewed athletic trainers repeatedly mentioned the current ECU Team Physician, Dr. Armen. There was an overwhelming response from the trainers emphasizing his level of involvement with all of the student athletes. He communicates with all athletic trainers and reviews each athlete's situation regardless of concern. Molly spoke about the relationship with Dr. Armen: "The team physician is kind of in between...he communicates with all the specialists and between us we gather information, he looks over it and makes a decision."

The athletic trainers also referenced the campus counseling center as a resource. There was an overwhelming emphasis on the benefits the counseling center provides for student athletes. Zac speaks to his athletes about the counseling center and encourages them to take advantage of this resource. He stated:

Being able to provide somebody for an athlete to go talk to regularly. Like I tell the athletes, when you go to the counseling center the coaches don't know about it. I don't

know about it. I kind of let them and the counselor deal with it just because if they want to open up to me they can.

In addition to these resources on campus, the level of mental health education has increased tremendously within ECU athletics over the past several years. With the hiring of a life skills coordinator several years ago, mental health has been an area of emphasis and focus, not only at ECU, but also with the AAC and the NCAA. Education is at the forefront of ECU's efforts towards mental health wellness for athletes. Zac spoke about the mental health fact sheet that is provided to the student athletes each year and the access to resources provided through the Teamworks application on their phone or computer. These resources also provide guidance of how to monitor symptoms in teammates or roommates and how to respond to certain situations surrounding mental health concerns.

Each year ECU recognizes Mental Health Awareness week by educating athletes, coaches and athletics staff about the importance of mental wellness. Athletes and staff wear ribbons as a visual reminder recognizing these efforts and guest speakers are provided to share stories and educate. The fall of 2020 was no different. During Mental Health Awareness week in October, a virtual session with a guest speaker was required and athletes were given ribbons to wear. In the interview with Allie, it was mentioned that the guest speaker scheduled by the life skills coordinator, was speaking that evening. Allie responded, "Yeah, I cannot wait to sit to watch that ... she was an athlete (Life Skills Coordinator), so she understands, that [mental health] is something that a lot of kids struggle with."

Each athletic trainer handles providing resources to their athletes in a different way. All of them have information to provide regarding the counseling center, the crisis hotline, and self-help resources, among other things, to help students with their overall wellness. When the

scholarly practitioner asked the question to the athletic trainer about what is your next step when speaking to a student athlete, Molly said, “I usually refer to the counseling center.” Zac shared that he regularly posts on the ECU athletic training Twitter page about resources: “We try to post something on Twitter, on our ECU athletic training page, and all resources on campus.... National Suicide Prevention Day, stuff like that.” Overall, there is an awareness about the importance of focusing on mental health, and staff and resources are available to all student athletes at ECU.

Summary

This chapter provided the results for the mixed methods study analyzing the collected quantitative and qualitative data. The quantitative data collected from current student athletes at ECU preceded the qualitative data collection using semi-structured interviews with five current athletic trainers. The student athlete screening tool used for the quantitative data collection, recommended by the NCAA, was adapted to an online format and was comprised of eight “yes” or “no” questions. The semi-structured interviews were guided by 12 pre-determined questions in order to collect the qualitative data from the athletic trainers.

Within this chapter, demographics of the participants for both sets of data collection, quantitative and qualitative, were presented along with a detailed description of the data collection process. Additionally, this chapter discussed analysis of the collected data.

Answers provided on the screening tool by the student athletes were reviewed and displayed in a visual format. Data analysis also utilized gender, identified year in school, and team affiliation to review the student athletes’ screening tool responses. Themes revealed from semi-structured interviews with athletic trainers provided the qualitative data points for the scholarly practitioner to analyze. Transcriptions of the interviews provided evidence of the

conclusions discussed within the chapter. The previously established study questions and sub-questions were answered using evidence from the collected data.

Chapter 4 also discussed the effects of the Coronavirus pandemic and how the quantitative and qualitative data collection could potentially be skewed based on this current circumstance. The quantitative data collection was obtained differently than the proposed plan due to the pandemic. Changes in procedure for the collection of data were shared in detail to provide an overview of the process that took place with the student athletes. The qualitative data collection with the athletic trainers was obtained as proposed in Chapter 3.

The fifth and final chapter will provide a summary of the mixed methods study and will discuss interpretation of the results. In addition, limitations of the study and implications of the findings for practice will be included. Finally, recommendations for further research will be shared.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The research study examined the issue of mental health wellness among student athletes at East Carolina University (ECU). The problem of practice focused on the opportunity to identify student athletes who may self-disclose mental health concerns or symptoms and ensure that they are aware of available resources. The purpose of the study was to identify areas that would benefit from additional policies and procedures within the department of athletics at ECU to help student athletes achieve overall wellness, specifically related to mental health. The results of this study provided recommendations for the creation of new policies and procedures to guide athletics administration, athletic trainers and coaches in assisting student athletes. Chapter 5 will summarize the research study findings, provide conclusions and make recommendations for further research in this area.

The problem of practice identified involved the opportunity to address gaps within the current protocol, procedures and identification tools to assist the appropriate stakeholders in focusing on mental health wellness, as compared to physical health wellness among Division I student athletes. As a result of these gaps, there is little data from ECU on whether student athletes will self-identify concerns or symptoms of mental health. It is also unknown if student athletes are aware of the resources available to them on campus related to mental health, and if they take advantage of these services. This study has assisted the leadership and athletic training staff at ECU in determining the next steps in putting procedures in place to provide a proactive approach to student athlete mental wellness.

This mixed methods study examined the results of an eight-question screening tool provided to student athletes at ECU. The screening tool asked students to identify specific

symptoms related to mental health illness. Early identification and intervention are crucial parts of overall wellness.

The screening tool utilized in this research study has been recommended by the National Collegiate Athletic Association (NCAA) as part of preseason physicals. The scholarly practitioner examined the results of the screening tool and provided the results to the athletic trainers. After sharing the results, follow-up interviews were conducted with current athletic trainers at ECU. The interviews conducted were in an effort to determine if the use of the screening tool could accurately identify student athletes who may exhibit concerns related to mental health. In conclusion of this research, athletic trainers were able to provide resources, counseling services, or other interventions to help student athletes achieve overall wellness, in addition to performing at their highest level as students and as athletes.

Summary of the Findings

The mixed methods study provided a baseline of information for stakeholders within ECU athletics as it pertains to student athletes and their willingness to disclose symptoms of mental health illness. The following section provides a summary of the findings.

The quantitative components of the data collection process resulted in the opportunity to provide athletic trainers with further details about the athletes on their respective teams, allowing them to provide further guidance on mental wellness as appropriate. The data also provided documentation of the current symptoms that student athletes were exhibiting and were willing to disclose on the survey. There are currently 452 active student athletes at ECU, and 136 of those (30.08%) participated in the study. The gender breakdown of student athlete participants was 107 females and 29 males. Participants were between the ages of 18 – 24. A visual representation of the student athletes, including the number of participants per team, is shown in Table 3. The

coronavirus pandemic, also referred to as COVID, impacted the number of participants, altered when athletes were asked to complete the screening tool, and changed how the tool was distributed making participation voluntary.

The screening tool used to collect data from the student athletes included eight “yes” or “no” questions pertaining to current feelings and symptoms students were experiencing. This screening tool is a current recommendation from the NCAA for utilization by athletic training staff and team doctors as a way to inquire and start the conversation with student athletes about their mental wellness. Overall comparisons of how students answered the questions are shown in Figures 4 – 6. These figures include the number of student athletes who answered “yes” by gender, year identified at ECU, as well as team affiliation.

The most relevant data collected, when considering the study questions, was related to the total number of participants. The data represented about one third of the current student athletes on the fall 2020 roster. In addition to the total number of participants, the most useful data when reviewed by the athletic trainers was the number of “yes” answers to each question by team.

Upon review of responses to each question, overall more student athletes indicated that thinking about things over and over was a symptom that they noticed related to their mental health with 76% of the participants, or 103 participants, providing “yes” responses. The percentage of “yes” responses increased based on the student’s identified year in school with 63% of first year students answering “yes” and 100% of fourth and fifth year participants responding “yes.” Seventy participants answered “yes” about being anxious and/or nervous. Additionally, when considering the responses to the questions based on gender, females

submitted a “yes” response to thinking about things over and over most frequently, while more males indicated that lack of energy affected their mental health wellness.

The qualitative data collected through semi-structured interviews, all with open-ended questions, allowed for detailed responses and discussion. The interviews were conducted with five athletic trainers at ECU. After review of the transcribed interviews, five themes were determined as the most relevant and beneficial identifiers that summarized the information provided. The shared accounts from the athletic trainers presented are from lived experiences through active work in college athletics, specifically at ECU and with student athletes. The five identified themes were developed from the list of codes selected from the five athletic trainers’ interviews. The first two themes reflect on the importance of the relationship created between student athletes and athletic trainers in addition to the relationship between student athletes and coaches. Collaboration to provide counseling resources on campus to support student athletes is the next identified theme. Focus on mental health and the importance of identification was also an identified theme with the final emerged theme of the collaboration with the team doctor for the benefit of student athletes.

The randomly selected athletic trainers serve a variety of athletic teams within the department. The athletic trainers unanimously felt that the timing of the survey, during the Coronavirus pandemic, had an impact on the number of students taking the survey along with how student athletes responded. However, all trainers felt that the information provided from the survey was helpful and would be beneficial, and they would like to see something similar implemented in the future. Overwhelmingly, the athletic trainers felt that mental health screening questions should be included in the preseason physical with student athletes. There was, however, disagreement on how often screening questions pertaining to mental health should be

asked of student athletes. In general, all athletic trainers felt that this topic is important and should be consistently addressed throughout the season.

Interpretation of the Findings

The findings of the research study on mental health and student athletes are directly related to previous research studies discussed within the literature presented in Chapter 2. The data collected via the survey and interviews can confirm, refute, and extend the knowledge about mental health and student athletes. Interpretation of the findings provides stakeholders with direction and focus to establish best practices when determining symptoms present in student athletes and providing guidance to establish mental health wellness.

Theoretical Framework

The help-seeking model was developed through research conducted with a focus on the theory of planned behavior. This model is intended to be used specifically for mental health help-seeking behaviors in adolescents to individuals in young adulthood (Kauer et al., 2017). The participants in the quantitative portion of the study fit into the targeted group of young adults, as referenced by the help-seeking model. In order to improve the attitudes related to help-seeking behavior, there must be increased knowledge about the theory of help-seeking and the benefits available (Rickwood et al., 2005). By self-identifying symptoms, the student athlete participants in the study acknowledged help-seeking intentions, which are predicted to lead to behavioral change. Within the collected quantitative data from the student athlete surveys, symptoms identified included: trouble sleeping, need for more energy, thinking about things over and over, being anxious or nervous, sad or depressed, lacking confidence, feeling hopeless about the future, and having a hard time managing emotions. In addition, the help-seeking model

acknowledges the existence of external factors, such as appropriate healthcare costs, available services, and resources, along with the willingness to approach professional help (Ajzen, 2002).

The following describes an alternative outline of the help-seeking model with four components. First, becoming aware of and appraising the problem; secondly, expressing the need for support; third, knowledge of available and accessible sources of help, and finally, fourth, being willing to disclose personal information (Kauer et al., 2017). The four steps of the help-seeking model were seen within the results of this study. The athletic trainers and student athletes are aware of the importance of placing emphasis on mental health concerns and expressed a need for support from external resources. From the data collected, Allie stated in her interview, “The counseling center had someone you could talk to and they also had as sports psychologist...I think it is really important to have a counselor that knows about sports and that [student athlete] way of life.”

As a result of the student athletes being willing to complete the survey and provide personal information, even if anonymously, one can see how this fulfills the requirements of the final component of the model. During the interview with Krista, she was asked about the high number of lacrosse players completing the survey and if she felt that they responded honestly. “I definitely think they were [honest], which is good but also slightly alarming.” Krista also spoke about her athletes reaching out for resources following the survey.

They haven’t directly mentioned doing the survey, but they may have taken it and then said something but I don’t know if that is what inspired them to do so. We have had a lot of people recently asking to meet with someone at the counseling center or doctors and such.

Mental Health Diagnosis

Mental health, the focus of this study, is more than a diagnosis, treatment, or the absence of a mental disorder/disability; it is also an essential component of mental wellness (WHO, 2014a). Previous research indicates that mental health does not discriminate between socioeconomic, biological, or environmental factors; however, all of these components can have an effect on a person's mental health (American Psychiatric Association, 2018). The varied demographics of the student athlete participants of this study validate that symptoms of mental health are present no matter the student athlete's team affiliation or years identified in school.

Based on previously identified research from the National Institute of Mental Health (NIMH) in 2015, it was estimated that at least 1 in 5 Americans, ages 18-25, had a diagnosable mental illness (National Institute of Mental Health, 2018). By the age of 22, three quarters of college students experience their first episode of an anxiety disorder (NCAA, 2018). Based on results from the presented study conducted with student athletes at ECU, almost 40% of the participants responded they had feelings of being anxious or nervous although 79% indicated they were under the age of 22. Unfortunately, this particular age group, even after self-identifying symptoms, are least likely to receive treatment for mental health issues (NCAA, 2018).

Mental Health Care

External factors and circumstances can affect a student athlete's ability to identify mental health symptoms and to take the necessary steps to accept mental health care. The rigors of the classroom, practice schedule, and adjusting to a new lifestyle can all play a role in the mental wellness of a student athlete. As stated by Kelsey in the collected data, "Things change, you know, once they start doing sporting activity... when they're not in season... they're not waking

up early, their body's not tired...their situation changes." An additional stressor present in this study was the Coronavirus pandemic. As noted by the athletic trainer participants, COVID has increased the need for mental health support for student athletes. More student athletes are identifying concerns of mental health and are reaching out for resources, such as counseling appointments. Molly shared feedback during her interview about recent experiences with one of her teams in regard to COVID.

I would say it has definitely hurt them a lot for I feel like they feel like they're alone, and they're stuck. They struggle between blaming their teammates, then feeling guilty about blaming their teammates, because of gossip, like I caught it from you. And now you spread it all over to the rest of the team and now we're stuck in this position [quarantined with the team paused].

Based on the unique challenges faced by collegiate student athletes, established coping mechanisms for mental health symptoms may not be successful. Strategies learned prior to college and used by student athletes in high school to deal with high demands may not make sense or be effective for the stressors faced in the college setting (NCAA, 2018). COVID has made this even more evident with the circumstances being new for not just the athletes but for those stakeholders who support those students.

Student athletes should be able to recognize their own patterns of overall wellness and should also be able to develop coping techniques and process adversity. When student athletes are unable to develop the skills mentioned on their own, interventions have to be put in place to ensure appropriate options are available (NCAA, 2018). An emphasis within this study has been placed on the number of student athletes who participated, but the majority, almost 70%, of the total number did not participate based on the voluntary nature. Making mental health screening

questions mandatory could alleviate the absence of students reaching out if they are experiencing symptoms and need help taking the next step. Identifying that a need is apparent and convincing the student athlete to accept outside help is a difficult step in the process of beginning mental health care.

Integrated Care Model

According to the NCAA Best Practices document, created in 2018, mental health providers should be easily accessible to student athletes. A student athlete's mental health and physical health are equally important (NCAA, 2018). The integrated model of care combines mental and medical health services with a unified on-site team for treatments, systems, and payments (Peek & National Integration Academy Council, 2013). Zac discussed the professionals who are available for student athletes at ECU. "They [ECU Athletics] prioritized a nutritionist and started talking about adding a therapist, and then the whole pandemic kind of hit budget issues so that has been paused." Mental health services can include athletic trainers, primary care physicians, licensed professional counselors (LPC), life skills support staff and registered dietitians and/or nutritionists (NCAA, 2018).

Based on the findings from this study, the listed professionals recommended by the NCAA are available to athletes at ECU. A concern evident from the qualitative data collected relates to the timeliness of access and the availability of these professionals. ECU currently has one team physician, one life skills coordinator, and one nutritionist, overseeing more than 450 student athletes. This is a daunting number for a professional in this field focused on the physical health of the student athletes, but the task becomes even more significant when considering the importance of mental health in overall wellness. In addition, there is not a licensed professional counselor (LPC) available to only student athletes. These professionals are available through the

counseling center on the main campus and are a resource for the entire university student population. During the qualitative data collection interview, Kelsey stated:

It would be absolutely amazing... to have a sports psychologist... it was great [at my previous school] to have someone to lean on to ask questions about that type of stuff [mental health] where I maybe didn't know 100% [of how to respond].

However, the student athlete does have access to their team's assigned athletic trainer more frequently. Accessibility to an athletic trainer can serve to establish an integrated care model in the training room, which provides comprehensive care to student athletes and may help reduce the stigma of mental health care (Sudano et al., 2017). In relation to the comprehensive care model, Molly stated in her interview, "Yes, actually, I have found that they're very open to talking to the athletic trainer about it."

This study sought to collect qualitative data from athletic trainers in order to provide current experiences as a stakeholder within the integrated care model, involved with the student athlete's physical and mental well-being. The clinical component of Peek and Heinrich's (1995) framework of the integrated care model includes the recommendation of a screening instrument to identify mental health concerns or needs of student athletes. The screening instrument can be used as another way to collect data regarding student athletes' mental health issues, which may include depression, anxiety, substance use, mood disorders, and ADHD (NCAA, 2018).

The screening tool utilized in this study focuses the quantitative data collection on an instrument that allowed student athletes to self-identify mental health concerns. Participants were from all 16 athletic teams, which included responses from male and female athletes. In addition, student athletes identified their year in school selecting from 1st, 2nd, 3rd, 4th, 5th year or other. With approximately one third of student athletes participating on a volunteer basis, the collected

data provided a baseline and starting point for stakeholders. With the knowledge gained from the screening tool, the scholarly practitioner was able to provide valuable data to stakeholders to create recommendations for this best practice to be continued in the future.

Best Practices

Mental Health Best Practices: Understanding and Supporting Student Athlete Mental Health is a document developed by a multidisciplinary task force. Through the NCAA Sport Science Institute, best practices were developed to address rising mental health issues experienced by student athletes (NCAA, 2018). Understanding and supporting “Student Athletes’ Mental Wellness” is the main purpose developed by the task force. The information provided in the document is beneficial for athletic and sports medicine departments, regardless of college or university size and/or resources, as the NCAA is striving to improve student athlete mental health.

The interview data from Krista confirms the need for mental health questions to be given to the student athletes at the beginning of the season. “We started doing some questionnaire that seems to be more directed at anxiety and depression... it is called the GAD.”

Within the best practices document from the NCAA (NCAA Sport Science Institute, 2017), the third component provides a Pre-Participation Mental Health Screening tool. This questionnaire, or a similar one, is recommended as part of the pre-participation exam for each student athlete for each calendar year, or when needed. The first eight questions on this recommended screening tool were used in this study conducted with the student athletes at ECU. Based on the student athletes’ responses, it is important that athletic training staff and athletic departments take into consideration the needs of student athletes. It is important to note that the recommended screening instrument is not a stand-alone assessment that can be used to diagnose,

but it can be used as an identifier. This tool allows appropriate staff to consider follow-up assessments (NCAA, 2017a).

Athletic Trainer Procedures

Certified Athletic Trainers (ATC) are not trained mental health providers (National Athletic Trainer's Association [NATA], 2018). Although ATCs are not providing therapy at colleges and universities to student athletes, they are aiding them in the process of receiving help and functioning within their athletic responsibilities. A study by Robinson et al. (2015) found that 50% of current ATCs are aiding in the treatment of a mental health disorder for a student athlete. Based on the study conducted by the scholarly practitioner, 100% of the athletic trainers interviewed are providing necessary resources for their student athletes to receive treatment. None of the interviewed trainers are providing therapy or feels as if they need to provide those services to their athletes. Appropriate communication and services at ECU are available to athletes from the counseling center and team doctor.

The National Athletic Trainers Association (NATA) determined that there are gaps between knowledge, treatment, referral and follow-up when working with student athletes and mental health concerns. This disparity is also found at NCAA institutions (Robinson et al., 2015). Based on the shared information from the athletic trainers interviewed in this study, there is validation that the previously identified concerns are present within current practices. When asked about certain policies and procedures to follow when helping a student athlete with mental health concerns, Molly shared:

I would say it's more of a policy versus a procedure, like what you should do, it is more of getting Dr. Armen involved or ECU counseling is an option...Several different trainers and several different teams. Is everyone is handling like you are? Or are the other trainers

kind of doing their own thing? I think we all lean on the same resources of ECU counseling and our team physician right about how immediate...the timeframe...how they approached the athlete might be very different.

There is also an acknowledgement of the need to consistently question how student athletes are feeling and assess their treatment needs.

Limitations of the Study

Limitations include weaknesses related to the validity of the research study. The limitations of this study fall into the following categories: external validity, instrumentation and the Coronavirus pandemic.

External Validity

The external validity of the study became a limitation during the research. Quantitative data collected was from participants identified within one department at the same university. The student athletes participated in this study voluntarily, and participants were limited to the athletics department at ECU.

The athletic trainers involved in the qualitative interview portion of the study also participated on a volunteer basis. The five participating athletic trainers represent a small sample of the total amount of athletic trainers within the athletic department at ECU.

The scholarly practitioner considered potential biases when reviewing limitations of the study. The screening tool was voluntary and required student athletes to take the initiative to participate on their own. Additionally, even if the student athlete completed the questions, they did not have to answer truthfully. A consideration, even though participation was anonymous, was that students might perceive that their answers could impact playing time or how stakeholders perceive their mental toughness and ability to compete. A reasonable measure to

address any limitations within the completion of the screening tool questions could be the basic, non-identifying demographic questions asked prior to the mental health “yes” or “no” questions. The demographic questions could entice participation due to the broad spectrum of identification.

Instrumentation

The proposed instrumentation of the research study was a nine question “yes” or “no” screening tool recommended by the NCAA. In using this document and only allowing student athletes to answer “yes” or “no”, as opposed to having a range of feelings to choose from, the instrumentation limited the possible data collected. The nature of the instrument created limits in determining any details of how the student athletes were feeling, gaging how long these feelings have been taking place, and did not allow for any discussion or personal disclosure of concerning feelings related to the student athlete’s current state of mental health.

Coronavirus Pandemic

The Coronavirus pandemic created an unforeseen limitation in the research data collection. The initial timeline for the screening tool to be completed was unable to be followed. In addition, the instrument used for the online screening tool was altered and the delivery of the instrumentation deviated from the initial outlined procedures. In addition, participation to answer the screening tool questions became voluntary, differing from the original research data collection plan.

Implications of the Findings for Practice

Currently at ECU, there are no specific procedures or policies in place for athletic trainers to follow when student athletes have concerns related to their mental health. However, student athletes are well taken care of by those athletic trainers in addition to influential stakeholders,

including physicians, counselors and coaches when mental health concerns become present in a student athlete. Each athletic trainer handles these situations differently depending on the relationship with the student athlete, the student athlete's willingness to utilize available resources, and the severity of the information that is shared.

Prior to the collection of data the intention was for the results of the study to be reviewed with the ECU athletics staff member who oversees all of the athletic trainers. This staff member reviewed the proposed data collection procedures and screening tool, followed by a discussion about the implications that the results could provide. When the pandemic began this staff member became the point of contact and coordinator for all things coronavirus-related within ECU athletics. Due to the ongoing pandemic and the high demand of this position, the results have not been shared with valuable stakeholders. In addition, due to the delay of many sports seasons, all 16 current athletic teams are active and in season during the spring 2021 semester. This has caused a great deal of strain on all employees within the athletic department. As a coach within the ECU athletic department, the scholarly practitioner has experienced many of the same stressors similar to other staff members within the department. Although the findings from this study are important and valuable, sharing the results is not a priority at this time.

In general, within college athletics there are no streamlined procedures in place by the governing body of the NCAA. There are, however, very specific guidelines involved when students have a physical injury, a concussion or a diagnosis of sickle cell anemia disease. The aforementioned areas involving the athletic trainers and student athletes interacting are very detailed and cannot have deviations. For instance, at the beginning of each season, every student athlete takes a baseline concussion evaluation. If a concussion is suspected during the season, the student athlete completes the same evaluation. Based on the results the student athlete will have a

certain “return to play” protocol that cannot be altered. This is similar to a physical injury that could require surgery, therapy, or a specific timeframe of recovery.

Mental health contains a wide variety of diagnosis and symptoms. The NCAA does address this area as it pertains to student athletes but only provides recommendations for college athletic departments and does not have mandated practices to follow. There are colleges and universities around the United States that do have preseason mental health questions in place along with protocols to follow, and in some instances trained staff working full time as a resource solely for athletes on campus. Even though a small number of universities have made this a priority and have provided these guidelines, this has not been the case on all campuses. Most athletic departments see the need for interventions, screenings and more strict guidelines; however, not only is this difficult to implement, but it can be costly.

The results from the study could have positive implications in regard to the current practices at ECU. Data collected from the screening tool indicates that student athletes are willing to answer questions regarding symptoms they are experiencing, related to mental health. Any answer of ‘yes’ on the screening tool is an indication that students are willing to share and are able to identify symptoms that could impact their academic and athletic performance. Based on the demographic information collected, student athletes, regardless of gender, year identified in school or team affiliation, are willing to provide information in regard to their mental health. The data indicates that female students are more willing to share and that students within their first and second year are also more willing to participate in answering questions on a volunteer basis. Overall, there was participation from every sport, suggesting that regardless of assumed stigma or the perceived toughness of a particular sport, student athletes are willing to not only share but to share truthfully about how they are feeling and what they are experiencing.

Implications from the interviews with the athletic trainers suggest that collecting this type of data is helpful in identifying appropriate resources for student athletes, as well as making the recourses available, not only in a timely manner, but consistently throughout the duration of the student's tenure at ECU. Without a formal policy or procedure in place to identify or steps to take when student athletes are in need of mental health support, athletic trainers could be impacted in a positive way if changes were implemented. A reasonable change could be implementing mental health screening questions during preseason physicals and a comprehensive review of medical history. Student athletes, regardless of year on campus or if they are a returning athlete, complete an online questionnaire each year. Questions related to mental health were added at the beginning of the 2020 season. This was an addition by the team physician as a response to COVID. With the implementation of these few vague questions, this could be expanded to include questions that are more comprehensive. In addition, this could be implemented as an on-going assessment during different time periods throughout the year. Feelings and concerns that could be reflected in the questions, such as anxiety, less sleep, hopelessness, etc., could vary greatly depending on athletes being in season or out of season. An athletic trainer, who would be responsible for reviewing the screening questions, should take this into consideration when potentially moving forward with a new policy or protocol.

A recommendation that would benefit athletic trainers as professionals would be to develop or expand training in regards to mental health within their certification program or through continuing education following their degree completion. Similar to a first responder or first aid training this overview and expansion of knowledge would benefit student athletes and would provide athletic trainers more guidance in making next step decisions based on exhibited or reported symptoms of mental health illness.

Even though there were delays and changes made to the study due to the coronavirus, the collection of data creates a baseline of information for stakeholders to consider moving forward. Although, no baseline was established for the state of student athletes' mental health at ECU prior to the pandemic, the data could be utilized in establishing next steps. There is a benefit of having the collected data during the pandemic as the athletic department looks to possibly establish new policies and procedures and consider the addition of a professional sports psychologist on staff for the betterment of student athletes' overall wellness.

Social Justice, Diversity, Access and Equity Implications

Student athlete can be used as an identifier for a sub group within a population. The opportunity to attend a higher education institution is an accomplishment and is a means of access for student athletes. With the privilege to compete and obtain an education from a college or university, other opportunities such as mental health care and resources are provided for these students. A consideration of some student athletes, similar to other students at a higher education institution, socioeconomic status may have been a barrier to receiving any kind of identification or treatment for mental health concerns prior to their time on campus.

Even though there are resources available on college and university campuses, are student athletes provided equal and fair access compared to the other students? Due to the demands of a student athletes' class, practice and travel schedule many of the on campus available resources are not as accessible to this group of students. Having a professional in the field of mental health with a more flexible schedule could be of benefit to creating better equal access for student athletes.

Recommendations for Future Studies

After conducting the current research, the scholarly practitioner has considered other areas of further research. Further research could expand from the current examined research questions and interventions used or could differ to a variety of areas. Considerations examined could be student athlete involvement in substance abuse/use or diagnosed eating disorders. Research could also expand to include involvement, perception and/or awareness of student athlete mental health issues by head coaches, coaching staffs, and support staffs. Additional information could be collected utilizing a different instrument, such as a Likert scale or more open-ended questions. The final consideration would be to expand the research related to how the Coronavirus pandemic has impacted student athletes' mental health, as well as how the pandemic will continue to impact the operations of collegiate athletic departments in the future.

The current research considered mental health symptoms involving sleep habits, energy levels, feelings about the future, etc. Further research could examine the use of substance use or abuse. This could include alcohol, tobacco products, vaping, supplements, as well as over the counter and prescription drugs. Eating disorders are also issues that may affect both female and male athletes. The possibility for individuals to be diagnosed with disorders, including anorexia, bulimia or over-eating, is more likely to be evident in athletes than non-athletes (NCAA, 2017a).

Considering recommendations for further research, the impacts of mental health concerns are not limited to student athletes and athletic trainers. Coaches play a significant role in collegiate athletics from many perspectives. Further studies could consider interviews or questionnaires with coaches. This involvement can include head coaches, but also assistant coaches, position coaches, volunteer coaches, and/or strength coaches. Interviews or questionnaires with coaches could include data collection on mental health history, awareness

and/or perception. Research questions could also consider the coaches' current involvement with mental health initiatives and their understanding of challenges encountered by current athletes.

As mentioned previously in this section, an additional consideration for further research could involve the use of a different type of scale to collect data. A Likert scale is intended to expand answer choices and create more accurate, thorough and descriptive quantitative data. The screening tool used in the current research required a "yes" or "no" response. A Likert scale would provide a range and could give more insight into how student athletes felt about the question, instead of a simple "yes" or "no" answer.

A final consideration would be to expand the research regarding the impacts on student athletes' mental health during the Coronavirus pandemic. Current evidence, referencing the pandemic, shows the presence of mental health symptoms in student athletes. The qualitative data collected in this study revealed that athletic trainers acknowledge the effects of the Coronavirus pandemic on their student athletes with the increase of symptoms and known additional access to mental health resources, including counseling. As this is still an expanding area of research, current literature is somewhat limited and new documented findings could present a baseline for continued research on this topic.

Other research areas could be considered with mental health or student athletes. Mental health is not a topic that is new in discussions of concern; however, it has only become prevalent with student athletes within the last 10 years. There is still a lot to learn about areas of mental health and how they affect student athletes and their academic and athletic performance. Stigma is an area that should also be considered when discussing these topics. The current research sheds light on an important topic of keeping student athletes at their best overall wellness, but there are significant areas for discussion and improvement.

Role of the Scholarly Practitioner

As a result of reviewing literature and conducting qualitative and quantitative data collection, the scholarly practitioner has learned an exceptional amount about the research process, mental health practices as they relate to collegiate athletics and symptoms related to mental health illness. Additionally, the scholarly practitioner has grown as an educational leader through reading professional articles, researching topics for new knowledge, guiding discussions on this important topic and advocating for the well-being of a vulnerable yet resilient population of student athletes. The conclusions from this process and presented findings will provide insight for further development in knowledge, process and collaboration for overall success for student athletes.

Conclusions

Education and acceptance of mental health diagnoses have increased in a positive way over the past several years. As stated earlier, student athletes are not immune to mental health diagnosis or the need for additional resources and support. Stigma is still very prevalent in the current society in regard to mental health. Many factors play a part in this stigma. The main factor is the inability to see a mental health diagnosis. Many individuals do not accept mental health diagnosis as an impairment that can affect an individuals' day-to-day life.

This research study aimed to share with stakeholders within the athletic department at ECU that student athletes are in need of acknowledgment of their feelings and in need of resources and support as a student and as an athlete. Overall wellness is recognized as a reoccurring theme throughout this study and captures the importance of not only mental health but also physical health. Student athletes can only perform at their highest level in the classroom and within their designated sport when they achieve their overall healthiest wellness.

Stakeholders play a key role in acceptance and providing resources. This research targeted data collection from student athletes to share with athletic trainers as the first line of support for athletes in this process. As is the case for most student athletes, athletic trainers spend a significant amount of time involved in the athlete's life during their sports affiliated years. Athletic trainers observe changes in behavior and communicate daily with their student athletes. Student athletes are dependent on athletic trainers to keep them healthy and active.

Reviewing the data collection and current policies and procedures of the athletic department at ECU, student athletes could benefit from changes in these areas. The data also shows that student athletes are experiencing struggles in identified mental health illnesses. Athletic trainers acknowledge the lack of formal procedures and the need for a more formalized process to benefit all student athletes in reaching their overall wellness.

REFERENCES

- American Mental Wellness Association. (2019).
<https://www.americanmentalwellness.org/intervention/definitions/>
- American Psychological Association. (2010). *The road to resilience*. Washington, DC: American Psychological Association. <http://www.apa.org/helpcenter/road-resilience.aspx>
- American Psychiatric Association. (2018). *What is mental health?* Washington, DC: American Psychiatric Association. <https://www.psychiatry.org/patients-families/what-is-mental-illness>
- Arora, S. (2015). *Achievement motivation and resilience among student athletes*. (Doctoral dissertation). Retrieved from ProQuest Central; ProQuest Dissertations & Theses Global. (Order No. 3739175).
- Ajzen, I. (2002). In N. Sheehy, A. J. Chapman, & W. A. Conroy (Eds.), *Biographical dictionary of psychology* (2nd ed.). London, UK: Routledge.
http://jproxy.lib.ecu.edu/login?url=https://search.credoreference.com/content/entry/routbiopsy/ajzen_icek/0?institutionId=4258
- Banic, M. (2018, September 4). The fight: How a collegiate athlete came back [Web log post]. Retrieved from <https://maddogsfight.wordpress.com/>
- Barlow, D. H. (2014). *Clinical handbook of psychological disorders: A step-by-step treatment manual*. New York, NY: Guilford Publications.
- Bey, T., & Ostick, B. (2009). Second impact syndrome. *The Western Journal of Emergency Medicine*, 10(1), 6–10.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672291/>

- Buchan, H. F. (2005). Ethical decision making in the public accounting profession: An extension of Ajzen's theory of planned behavior. *Journal of Business Ethics, 61*(2), 165-181.
doi:10.1007/s10551-005-0277-2
- Carroll, J. F. X., & McGinley, J. J. (2001). A screening form for identifying mental health problems in alcohol/other drug dependent persons. *Alcoholism Treatment Quarterly, 19*(4), 33-47. https://doi.org/10.1300/J020v19n04_021.
- Center for Disease Control and Prevention. (2015). U.S. Department of Health and Human Services. <https://www.cdc.gov/headsup/index.html>
- Center for Disease Control and Prevention. (2018). U.S. Department of Health and Human Services. Retrieved from: <https://www.cdc.gov/>
- Chen, L. H., Wu, C., & Chang, J. (2017). Gratitude and athletes' life satisfaction: The moderating role of mindfulness. *Journal of Happiness Studies, 18*(4), 1,147-1,159.
doi:<http://dx.doi.org.jproxy.lib.ecu.edu/10.1007/s10902-016-9764-7>
- Conley, K., Bolin, D., Carek, P., Konin, J., Neal, T., & Violette, D. (2014). National athletic trainers' association position statement: Preparticipation physical examinations and disqualifying conditions. *Journal of Athletic Training, 49*(1), 102-20.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/1498236547?accountid=10639>
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of U.S. environmental managers: Applying Ajzen's theory of planned behavior. *The Academy of Management Journal, 43*(4), 627-641. doi: 10.2307/1556358
- Creswell, J., & Creswell, D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches*. California: SAGE.

- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4th ed.). Los Angeles: SAGE.
- Donohue, B., Pitts, M., Gavrilova, Y., Ayarza, A., & Cintron, K. I. (2013). A culturally sensitive approach to treating substance abuse in athletes using evidence-supported methods. *Journal of Clinical Sport Psychology, 7*(2), 98-119.
- Egeland, B., Carlson, E., & Sroufe, L. (1993). Resilience as process. *Development and Psychopathology, 5*(4), 517-528. doi:10.1017/s09545784000061631
- Engle, R. L., Dimitriadi, N., Gavidia, J. V., Schlaegel, C., Delanoë, S., Alvarado, I., . . . & Wolff, B. (2010). Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research, 16*(1), 35-57. doi:10.1108/13552551011020063
- Etzel, E. F., & Watson, J. C. (2007). Ethical challenges for psychological consultations in intercollegiate athletics. *Journal of Clinical Sport Psychology, 1*, 304-317.
- Finley, D. C. (2009). Conquering negative self-talk. *Journal of Financial Planning, 22-23*.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/217550796?accountid=10639>
- Flach, F. (1988). *Resilience: Discovering a new strength at times of stress* (Chapter xv, p. 270). New York, NY, US: Ballantine Books.
- Fusch, P. I., & Ness, L. R. (2015). Are we there yet? data saturation in qualitative research. *The Qualitative Report, 20*(9), 1,408.
- Galatzer-Levy, I., Burton, C. L., & Bonanno, G. A. (2012). Coping flexibility, potentially traumatic life events, and resilience: A prospective study of college student adjustment. *Journal of Social and Clinical Psychology, 31*(6), 542-567.
doi:<http://dx.doi.org.jproxy.lib.ecu.edu/10.1521/jscp.2012.31.6.542>

- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston: Pearson/Allyn & Bacon.
- Galli, N., & Vealey, R. S. (2008). "Bouncing back" from adversity: Athletes' experiences of resilience. *Sport Psychologist*, 22(3), 316-335.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/21039479?accountid=10639>, 316-335.
- Garmezy, N., Masten, A. S., & Tellegen, A. (1984). *The study of stress and competence in children: A building block for developmental psychopathology*.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/63460838?accountid=10639>
- Gavrilova, Y., & Donohue, B. (2018). Sport-specific mental health interventions in athletes: A call for optimization models sensitive to sport culture. *Journal of Sport Behavior*, 41(3), 283-304.
- Grit Digital Health, LLC. (2019). YOU at College Personalizes well-being for every student.
<https://youatcollege.com/>
- Hanna, H. (2016). *The American Institute of Stress. Redefining stress*.
<https://www.stress.org/redefining-stress/>
- Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T. (2011). What is resilience? *Canadian Journal of Psychiatry*, 56(5), 258-265.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/882094973?accountid=10639>
- Hong, E., Keenan, L., Putukian, M., & Scifers, J. R. (2018). Addressing mental health issues in the collegiate student-athlete. *Athletic Training & Sports Health Care*, 10(2), 54-58.
doi:<http://dx.doi.org.jproxy.lib.ecu.edu/10.3928/19425864-20180219-01>

- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in the world's best performers. *Sport Psychologist, 21*(2), 243-264.
- Kauer, S., Kauer, S., Buhagiar, K., Sanci, L., & Sanci, L. (2017). Facilitating mental health help seeking in young adults: The underlying theory and development of an online navigation tool. *Advances in Mental Health, 15*(1), 71-87. doi:10.1080/18387357.2016.1237856
- Lonsdale, D. (2017). Intentions to cheat: Ajzen's planned behavior and goal-related personality facets. *The Journal of Psychology, 151*(2), 113-129.
doi:10.1080/00223980.2016.1241737
- López, R. L., & Levy, J. J. (2013). Student athletes' perceived barriers to and preferences for seeking counseling. *Journal of College Counseling, 6*(1), 19-31.
- Markoulakis, R., & Kirsh, B. (2013) Difficulties for university students with mental health problems: A critical interpretive synthesis. *The Review of Higher Education, 37*(1), 77–100.
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. *Forum Qualitative Sozialforschung, 11*(3), 19.
- McKenzie, L. (2018). *Colleges use technology to help students manage mental health. Inside Higher Ed.*
<https://www.insidehighered.com/news/2018/10/05/colleges-turn-wellness-app-address-student-mental-health>
- National Athletic Trainer's Association. (2018). <https://www.nata.org/>
- National Institute of Mental Health. (2018). U.S. Department of Health and Human Services.
<https://www.nimh.nih.gov/index.shtml>

NC Government. (2020). *COVID-19 orders & directives*.

<https://www.nc.gov/covid-19/covid-19-orders-directives>

NCAA. (2017a). *For student athlete's mental health: A more educated approach*.

<http://www.ncaa.org/about/student-athletes-mental-health-more-educated-approach>

NCAA. (2017b, June 14). The revolution redefining 'mental toughness' and saving athletes.

<http://www.ncaa.org/sport-science-institute/revolution-redefining-mental-toughness-and-saving-athletes>

NCAA. (2018, April 20). *Estimated probability of competing in college athletics*.

<http://www.ncaa.org/about/resources/research/estimated-probability-competing-college-athletics>.

NCAA Sport Science Institute. (2017, May). *Interassociation consensus document: Mental health best practices understanding and supporting student-athlete mental wellness*.

https://www.ncaa.org/sites/default/files/HS_Mental-Health-Best-Practices_20160317.pdf

NCAA Sport Science Institute. (2018). *Mental health best practices*.

<http://www.ncaa.org/sport-science-institute/mental-health-best-practices>

Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, California: SAGE Publications, Inc.

Peek, C. J., & Heinrich, R. L. (1995). Building a collaborative healthcare organization: From idea to innovation. *Family Systems Medicine*, 13(3-4), 327-342. doi:10.1037/h0089218

Peek, C. J., & National Integration Academy Council. (2013). *Lexicon for behavioral health and primary care integration* (AHRQ Pub. No. 13-IP001-EF). Rockville, MD: Agency for Healthcare Research and Quality.

<http://integrationacademy.ahrq.gov/sites/default/files/Lexicon.pdf>

- Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology, 58*(3), 307-321.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/236895693?accountid=10639>
- Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health, 4*(3), 218-251. doi:10.5172/jamh.4.3.218
- Robinson, J., Rodden, B., & Floyd, R. (2015). Athletic trainers' ability to recognize, refer, and follow up with collegiate student-athlete mental health disorders. *Medicine & Science in Sports & Exercise, 47*(5S), 504. doi: 10.1249/01.mss.0000466090.33409.11.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudemonic well-being. *Annual Review of Psychology, 141*.
<http://link.galegroup.com.jproxy.lib.ecu.edu/apps/doc/A73232706/HRCA?u=ncliveecu&sid=HRCA&xid=6a2e27a8>
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. Los Angeles: SAGE Publications.
- Sarkar, M., & Fletcher, D. (2014). Psychological resilience in sport performers: A review of stressors and protective factors. *Jornal of Sports Sciences, 32*(15), 1419-1434.
doi:10.1080/02640414.2014.901551
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring it's conceptualization and operationalization. *Quality & Quantity, 52*(4), 1893-1907. <https://doi-org.jproxy.lib.ecu.edu/10.1007/s11135-017-0574-8>

- Schrank, B., Brownell, T., Tylee, A., & Slade, M. (2014). Positive psychology: An approach to supporting recovery in mental illness. *East Asian Archives of Psychiatry, 24*(3), 95-103.
<http://search.proquest.com.jproxy.lib.ecu.edu/docview/1616501190?accountid=10639>
- Sheldon, K. M., & King, L. (2001). Why positive psychology is necessary. *Psychologist, 56*(3), 216-217.
<https://doi-org.jproxy.lib.ecu.edu/10.1037/0003-066X.56.3.216>
- Sudano, L. E., Collins, G., & Miles, C. M. (2017). Reducing barriers to mental health care for student-athletes: An integrated care model. *Families, Systems & Health, 35*(1).
<http://link.galegroup.com.jproxy.lib.ecu.edu/apps/doc/A490275396/HRCA?u=ncliveecu&sid=HRCA&xid=ee20ff1b>
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative Research Journal, 11*(2), 63-75. doi:10.3316/QRJ1102063
- TED. (2017, June). *Victoria Garrick athletics and mental health: The hidden opponent*. [Video File]. <https://www.youtube.com/watch?v=Sdk7pLpblls>
- Teddle, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*(1), 77-100. doi:10.1177/1558689806292430
- Tinklin, T., Riddell, S., & Wilson, A. (2005). Support for students with mental health difficulties in higher education: The students' perspective. *British Journal of Guidance and Counselling, 33*(4), 495-512. doi:10.1080/03069880500327496
- Transfer Terms. (n.d.). NCAA.
<http://www.ncaa.org/studentathletes/current/transferterms#:~:text=Redshirt%3A%20In%20Divisions%20I%20or,saving%20a%20season%20of%20competition>

Wingfield, K., Matheson, G., & Meeuwisse, W. (2004). Preparticipation evaluation: An evidence-based review. *Clinical Journal of Sport Medicine*, 14(3), 109-122.

World Health Organization. (2014a). *10 facts on mental health*.

http://www.who.int/features/factfiles/mental_health/en/

World Health Organization. (2014b). *Mental health: A state of well-being*.

http://www.who.int/features/factfiles/mental_health/en/

World Health Organization. Mental health: Strengthen our response. (2018).

<http://www.who.int/en/news-room/fact-sheets/detail/mental>

APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



EAST CAROLINA UNIVERSITY

University & Medical Center Institutional Review Board

4N-64 Brody Medical Sciences Building · Mail Stop 682

600 Moye Boulevard · Greenville, NC 27834

Office 252-744-2914 · Fax 252-744-2284

rede.ecu.edu/umcirb/

Notification of Amendment Approval

From: Social/Behavioral IRB
To: [Kristin Jeffries](#)
CC: [Heidi Puckett](#)
Date: 4/20/2020
Re: [Ame1 UMCIRB 19-002857](#)
[UMCIRB 19-002857](#)
Implementing a mental wellness screening tool to increase focus on mental health in division I collegiate athletics

Your Amendment has been reviewed and approved using expedited review on 4/20/2020. It was the determination of the UMCIRB Chairperson (or designee) that this revision does not impact the overall risk/benefit ratio of the study and is appropriate for the population and procedures proposed.

Please note that any further changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a Final Report application to the UMCIRB prior to the Expected End Date provided in the IRB application. If the study is not completed by this date, an Amendment will need to be submitted to extend the Expected End Date. The investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Description
Expected end date changed to 6/1/2020

For research studies where a waiver of HIPAA Authorization has been approved, each of the waiver criteria in 45 CFR 164.512(i)(2)(ii) has been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914 · Fax 252-744-2284
rede.ecu.edu/umcirb/

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: [Kristin Jeffries](#)
CC: [Heidi Puckett](#)
Date: 1/22/2020
Re: [UMCIRB 19-002857](#)
Implementing a mental wellness screening tool to increase focus on mental health in division I collegiate athletics

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) occurred on 1/22/2020. The research study is eligible for review under expedited category # 6, 7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a Final Report application to the UMCIRB prior to the Expected End Date provided in the IRB application. If the study is not completed by this date, an Amendment will need to be submitted to extend the Expected End Date. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
Consent - Athletic Trainer.doc	Consent Forms
Consent - Student Athlete 18.doc	Consent Forms
Interview Questions.docx	Interview/Focus Group Scripts/Questions
IRB Proposal Document.docx	Additional Items
Minor Assent.doc	Consent Forms
Parental permission for child.docx	Consent Forms
Research Protocol.docx	Study Protocol or Grant Application
Student Athlete Screening Tool	Surveys and Questionn

APPENDIX B: CONSENT FORM QUANTITATIVE



Informed Consent to Participate in Research Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study:

Implementing a mental wellness screening tool to increase focus on mental health in division I collegiate athletics

Principal Investigator: Kristin Jeffries

Institution, Department or Division: East Carolina University, Department of Educational Leadership

Address: 118 Scales Field House

Telephone #: 252-737-4512

Study Coordinator: Heidi Puckett

Telephone #: 252-328-6444

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

This study will focus on the issue of mental health illness and achieving mental health wellness in collegiate athletics. The researcher will implement an intervention that may help athletic administrators identify student athletes who may be suffering from symptoms of a mental health illness. Identifying present symptoms within athletes will allow the Athletics Department at ECU to provide better services and resources to these student athletes.

Why am I being invited to take part in this research?

The purpose of the study is to identify areas that could be improved to help student athletes achieve overall wellness, specifically related to mental health wellness. The results of this study may provide the opportunity for the creation of new policies and procedures to guide athletics administration, athletic trainers and coaches in assisting student athletes. You are being invited to take part in this research because you are a student athlete at East Carolina University. The decision to take part in this research is yours to make. By doing this research, we hope to learn how to better help student athletes achieve overall mental wellness and provide resources, protocol and procedures to help current and future student athletes.

If you volunteer to take part in this research, you will be one of about 350 people to do so.

Are there reasons I should not take part in this research?

If you are under the age of 18 you should not participate in this study. There are no other known reasons why you should not participate in this study.

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The research will be conducted via email. Participants will be sent the consent form and screening tool through the platform teamworks. The total amount of time you will be asked to volunteer for this study is 15 minutes.

What will I be asked to do?

You will be asked to do the following:

- Sign a consent form
- Identify your team affiliation
- Identify your gender
- Answer eight yes/no questions
- Optional: Provide any additional information regarding your mental health to your athletic trainer

What might I experience if I take part in the research?

We don't know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if you will benefit from taking part in this study. There may not be any personal benefit to you but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

We *will not* be able to pay you for the time you volunteer while being in this study.

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- ECU Athletic Trainer
- The University & Medical Center Institutional Review Board (UMCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.

How will you keep the information you collect about me secure? How long will you keep it?

This information collected will be stored on a secured departmental piratedrive. The sport specific athletic trainer and the researcher will have access to this data. The data will be kept for research purposes only and will not have any personal identifiers given to the researcher. Information will be stored for four years. After the four years the data will be destroyed.

What if I decide I don't want to continue in this research?

You can stop at any time after it has already started. There will be no consequences if you stop and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at 252-737-4512, Monday thru Friday 7am – 3pm.

If you have questions about your rights as someone taking part in research, you may call the University & Medical Center Institutional Review Board (UMCIRB) at phone number 252-744-2914 (days, 8:00 am-

5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director for Human Research Protections, at 252-744-2914.

Is there anything else I should know?

Your information collected as part of the research, even if identifiers are removed, will not be used or distributed for future studies.

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.

Participant's Name (PRINT)	Signature	Date
-----------------------------------	------------------	-------------

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have provided the consent document to the person who has signed above, and given the participant the opportunity to ask any questions about the research.

Person Obtaining Consent (PRINT)	Signature	Date
---	------------------	-------------

APPENDIX C: CONSENT FORM QUALITATIVE



Informed Consent to Participate in Research Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study:

Implementing a mental wellness screening tool to increase focus on mental health in division I collegiate athletics

Principal Investigator: Kristin Jeffries

Institution, Department or Division: East Carolina University, Department of Educational Leadership

Address: 118 Scales Field House

Telephone #: 252-737-4512

Study Coordinator: Heidi Puckett

Telephone #: 252-328-6444

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

This study will focus on the issue of mental health illness and achieving mental health wellness in collegiate athletics. The researcher will implement an intervention that may help athletic administrators identify student athletes who may be suffering from symptoms of a mental health illness. Identifying these students will allow the Athletics Department at ECU to provide better services and resources to these student athletes.

Why am I being invited to take part in this research?

The purpose of the study is to identify areas that could be improved to help student athletes achieve overall wellness, specifically related to mental health wellness. The results of this study may provide the opportunity for the creation of new policies and procedures to guide athletics administration, athletic trainers and coaches in assisting student athletes. You are being invited to take part in this research because you are a student athlete at East Carolina University. The decision to take part in this research is yours to make. By doing this research, we hope to learn how to better help student athletes achieve overall mental wellness and provide resources, protocol and procedures to help current and future student athletes.

If you volunteer to take part in this research, you will be one of about 5 people to do so.

Are there reasons I should not take part in this research?

There are no known reasons why you should not participate in this study.

What other choices do I have if I do not take part in this research?

You can choose not to participate.

Where is the research going to take place and how long will it last?

The research will be conducted at East Carolina University in the athletic trainer office or training room. If face to face is not a possibility the research will be conducted through Webex. The total amount of time you will be asked to volunteer for this study will be 30 – 45 minutes during one session.

What will I be asked to do?

You will be asked to do the following:

- Sign a consent form
- Allow researcher to audio (Face to Face) or video (Webex) record the interview
- Answer interview questions

The researcher will ask open ended questions to the athletic trainer about the results of the screening tool given to the student athletes. The questions will ask about the student athlete responses to the screening tool and what steps can be taken following receiving the results.

What might I experience if I take part in the research?

We don't know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if you will benefit from taking part in this study. There may not be any personal benefit to you but the information gained by doing this research may help others in the future.

Will I be paid for taking part in this research?

We *will not* be able to pay you for the time you volunteer while being in this study.

Will it cost me to take part in this research?

It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?

ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- The researcher
- The University & Medical Center Institutional Review Board (UMCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.

How will you keep the information you collect about me secure? How long will you keep it?

This information collected will be stored through an audio recording application or video file and will be transcribed in written form kept in a word document. The word document will be password protected. The data will be kept for research purposes only. The data will be stored for four years. After the four years the data will be destroyed.

What if I decide I don't want to continue in this research?

You can stop at any time after it has already started. There will be no consequences if you stop and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at 252-737-4512, Monday thru Friday 7am – 3pm.

If you have questions about your rights as someone taking part in research, you may call the University & Medical Center Institutional Review Board (UMCIRB) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director for Human Research Protections, at 252-744-2914.

Is there anything else I should know?

Your information collected as part of the research, even if identifiers are removed, will not be used or distributed for future studies.

I have decided I want to take part in this research. What should I do now?

The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

Participant's Name (PRINT)

Signature

Date

Person Obtaining Informed Consent: I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

APPENDIX D: PRESEASON SCREENING TOOL

SCREENING TOPIC: GENERAL INDEX – Revised July 24, 2020

Team:

Baseball	Basketball	Cheer	Cross Country	Dance
Football	Golf	Lacrosse	Soccer	Softball
Track & Field	Volleyball			

Gender:

Male Female

Year in School:

1st year 2nd Year 3rd Year 4th Year 5th Year Other

Questions:

1. I often have trouble sleeping.	YES	NO
2. I wish I had more energy most days of the week.	YES	NO
3. I think about things over and over.	YES	NO
4. I feel anxious and nervous much of the time.	YES	NO
5. I often feel sad or depressed.	YES	NO
6. I struggle with being confident.	YES	NO
7. I don't feel hopeful about the future.	YES	NO
8. I have a hard time managing my emotions (frustration, anger, impatience).	YES	NO

Interpretation: Any response of “Yes” should lead to follow-up discussion between the student-athlete and a member of the primary athletics health care provider team and/or point person for determination about whether the student-athlete should be referred to a licensed mental health professional for further evaluation.

APPENDIX E: PRESEASON HEALTH QUESTIONNAIRE

Please complete all questions and submit answers prior to your appointment with a trainer/team physician. The trainer and team physician will review this history with you at your appointment and answer any of your questions.

Sports Activity Intended:

Baseball

Basketball

Cross Country

Diving

Football

Golf

Soccer

Softball

Swimming

Tennis

Track and Field

Volleyball

More than one sport

Other (please indicate)

Has a doctor ever denied or restricted your participation in sports for any reason? Required Yes/No

Do you have an ongoing or chronic illness (like diabetes or asthma)? Required Yes/No

Are you currently taking any prescription or non-prescription (over-the-counter) medications or pills or using an inhaler? Required Yes/No

Do you have any allergies to medicines, pollens, foods or stinging insects? Required Yes/No

Have you ever passed out or nearly passed out AFTER exercise? Required Yes/No

Have you ever passed out or nearly passed out DURING exercise? Required Yes/No

Have you ever had discomfort, pain, or pressure in your chest during exercise? Required Yes/No

Does your heart ever race or skip beats during exercise? Required Yes/No

Has a doctor ever told you that you have problems with your blood pressure, cholesterol, murmur or heart infection? Required Yes/No

Has a doctor ever ordered a test for your heart (EKG, echo, etc.)? Required Yes/No

Has anyone in your family died suddenly for no apparent reason? Required Yes/No

Does anyone in your family have a heart problem? Required Yes/No

Has any family member or relative died of heart problems or of sudden death before age 50?
Required Yes/No

Has anyone in your family ever been treated for recurrent fainting, an irregular heartbeat, or had a pacemaker or defibrillator implanted? Required Yes/No

Does anyone in your family have Marfan syndrome? Required Yes/No

Have you ever been hospitalized over night? Required Yes/No

Have you ever had surgery? Required Yes/No

Have you had an injury that caused you to miss a practice or game? Required Yes/No

Have you broken or fractured any bones or dislocated any joints? Required Yes/No

Have you ever had an injury requiring imaging, injections, PT, casting or crutches? Required Yes/No

Have you ever had a stress fracture? Required Yes/No

Have you ever been told you have or have you had an x-ray for neck instability? Required Yes/No

Do you use any special protective or corrective equipment or devices that are not usually used for your sport or position (for example: knee brace, special neck roll, foot orthotics, dental retainer or hearing aid)? Required Yes/No

Has a doctor ever told you that you have asthma or allergies? Required Yes/No

Do you cough, wheeze or have trouble breathing during or after activity? Required Yes/No

Have you ever used an inhaler or taken asthma medication? Required Yes/No

Is there anyone in your family who has asthma? Required Yes/No

Were you born without or are you missing a kidney, an eye, or any other organ? Required Yes/No

Have you had a severe viral infection (for example: myocarditis or mononucleosis) within the past month? Required Yes/No

Do you have any current skin problems (for example: itching, rashes, acne, warts, fungus or blisters)?
Required Yes/No

Have you ever had a herpes skin infection? Required Yes/No

Have you ever had a head injury or concussion? Required Yes/No

Have you ever been hit in the head and been confused or lost your memory? Required Yes/No

Have you ever had a seizure? Required Yes/No

Do you ever have headaches with exercise? Required Yes/No

Have you ever had numbness, tingling, or weakness in your arms or legs after being hit or falling?
Required Yes/No

Have you ever been unable to move your arms or legs after being hit or falling? Required Yes/No

Has anyone in your family had any unexplained seizures, drowning, or car accidents? Required Yes/No

Has a doctor told you that you or someone in your family has sickle cell trait or disease? Required Yes/No

When exercising in the heat, do you have severe muscle cramps or become ill? Required Yes/No

Have you had any problems with your eyes or vision? Required Yes/No

Do you wear glasses, contact lenses, or both? Required Yes/No

Do you wear protective eyewear, such as goggles or a face shield? Required Yes/No

Are you happy with your weight? Required Yes/No

Are you trying to gain or lose weight? Required Yes/No

Do you limit or carefully control what you eat? Required Yes/No

Has anyone ever recommended you change your weight or eating habits? Required Yes/No

Are you female or male? Required

Do you have any concerns that you would like to discuss with a doctor? Yes/No

Special concerns (student athletes):

APPENDIX F: INTERVIEW QUESTIONS

1. Do you feel like student athletes were truthful in their responses to the questions on the screening tool?
2. During your career as an athletic trainer, have you had student athletes openly discuss information with you related to their mental health? If yes, can you give some details?
3. Based on your experience, are there specific diagnoses/symptoms/concerns that student athletes seem to be more willing to discuss?
4. After completing the mental health screening tool, did any student athletes provide you with information related to mental health? If yes, what kind of information was presented?
5. What happens when a student athlete presents signs of mental health concerns or self-advocates for mental health services?
6. What are the professional practices that Certified Athletic Trainers use to help division 1A student athletes overcome obstacles related to receiving mental health services?
7. If students are diagnosed with a mental illness, are there specific protocols in the athletic department related to the diagnosis? Does anyone follow-up with them?
8. Did you refer anyone to other resources based on the survey results? What type of resources did you recommend and do you think they were helpful?
9. Have you referred athletes to available resources prior to using the survey in this year's physicals?
10. When a student is cleared to return to play, what practices, procedures or protocols are used to ensure the student is successful?

11. What are your thoughts in regard to your experience in utilizing the screening tool; specifically, do you think adding the screening tool to the preseason physicals resulted in your receipt of more information related to mental health?

12. In your opinion do you feel like the athletic department should continue to use this tool or a similar screening tool for student athletes?

APPENDIX G: STUDENT ATHLETE DEMOGRAPHICS BY TEAM

Table G1

Quantitative Data: Participants Identified as Baseball Players

Student Athlete Reference Number	Gender	Year in School
1	Male	1 st Year
2	Male	4 th Year

Note. Only males participate in Baseball at ECU.

Table G2

Quantitative Data: Participants Identified as Basketball Players

Student Athlete Reference Number	Gender	Year in School
3	Female	2 nd Year
4	Female	1 st Year
5	Female	1 st Year
6	Female	1 st Year
7	Female	2 nd Year
8	Male	4 th Year

Table G3

Quantitative Data: Participants Identified as Cheerleaders

Student Athlete Reference Number	Gender	Year in School
9	Female	3 rd Year
10	Female	4 th Year

11	Female	2 nd Year
12	Female	2 nd Year
13	Female	3 rd Year
14	Female	3 rd Year
15	Female	2 nd Year
16	Female	3 rd Year
17	Female	3 rd Year
18	Female	2 nd Year
19	Female	4 th Year
20	Female	5 th Year
21	Female	1 st Year
22	Female	2 nd Year
23	Female	4 th Year
24	Female	1 st Year
25	Female	2 nd Year
26	Female	3 rd Year
27	Female	1 st Year
28	Female	5 th Year
29	Female	3 rd Year
30	Female	3 rd Year
31	Female	1 st Year
32	Female	1 st Year
33	Female	2 nd Year

35	Female	1 st Year
36	Male	4 th Year
37	Male	2 nd Year
38	Male	4 th Year
39	Male	4 th Year
40	Male	3 rd Year
41	Male	3 rd Year

Table G4

Quantitative Data: Participants Identified as Cross Country Runners

Student Athlete Reference Number	Gender	Year in School
42	Female	1 st Year
43	Female	1 st Year
44	Female	2 nd Year
45	Female	2 nd Year
46	Female	2 nd Year
47	Female	3 rd Year
48	Female	3 rd Year
49	Female	3 rd Year
50	Female	3 rd Year
51	Male	1 st Year
52	Male	4 th Year
53	Male	1 st Year

Table G5

Quantitative Data: Participants Identified as Dance Team Members

Student Athlete Reference Number	Gender	Year in School
54	Female	2 nd Year
55	Female	1 st Year
56	Female	2 nd Year
57	Female	3 rd Year
58	Female	2 nd Year
59	Female	4 th Year
60	Female	2 nd Year
61	Female	3 rd Year
62	Female	4 th Year
63	Female	2 nd Year
64	Female	2 nd Year
65	Female	3 rd Year
66	Female	2 nd Year
67	Female	3 rd Year
68	Female	2 nd Year
69	Female	3 rd Year
70	Female	3 rd Year
71	Female	4 th Year
72	Female	2 nd Year

Table G6

Quantitative Data: Participants Identified as Football Players

Student Athlete Reference Number	Gender	Year in School
73	Male	3 rd Year
74	Male	1 st Year
75	Male	1 st Year
76	Male	3 rd Year
77	Male	1 st Year
78	Male	1 st Year
79	Male	2 nd Year
80	Male	1 st Year
81	Male	1 st Year

Note. Only males participate in Football at ECU.

Table G7

Quantitative Data: Participants Identified as Golf Players

Student Athlete Reference Number	Gender	Year in School
82	Female	5 th Year
83	Female	2 nd Year
84	Male	4 th Year
85	Male	4 th Year
86	Male	4 th Year
87	Male	5 th Year

Table G8

Quantitative Data: Participants Identified as Lacrosse Players

Student Athlete Reference Number	Gender	Year in School
89	Female	1 st Year
90	Female	4 th Year
91	Female	2 nd Year
92	Female	4 th Year
93	Female	1 st Year
94	Female	2 nd Year
95	Female	1 st Year
96	Female	3 rd Year
97	Female	4 th Year
98	Female	3 rd Year
99	Female	4 th Year
100	Female	3 rd Year
101	Female	4 th Year
102	Female	2 nd Year
103	Female	4 th Year
104	Female	1 st Year
105	Female	1 st Year
106	Female	1 st Year

Note. Only females participate in Lacrosse at ECU.

Table G9

Quantitative Data: Participants Identified as Soccer Players

Student Athlete Reference Number	Gender	Year in School
107	Female	1 st Year
108	Female	3 rd Year
109	Female	2 nd Year
110	Female	2 nd Year
111	Female	2 nd Year
112	Female	1 st Year

Note. Only females participate in Soccer at ECU.

Table G10

Quantitative Data: Participants Identified as Softball Players

Student Athlete Reference Number	Gender	Year in School
113	Female	1 st Year
114	Female	1 st Year
115	Female	2 nd Year
116	Female	3 rd Year
117	Female	1 st Year
118	Female	2 nd Year
119	Female	4 th Year
120	Female	3 rd Year
121	Female	2 nd Year

122	Female	1 st Year
123	Female	4 th Year
124	Female	2 nd Year

Note. Only females participate in Softball at ECU.

Table G11

Quantitative Data: Participants Identified as Track and Field Athletes

Student Athlete Reference Number	Gender	Year in School
125	Female	1 st Year
126	Female	1 st Year
127	Female	1 st Year
128	Female	3 rd Year
129	Female	2 nd Year
130	Female	3 rd Year
131	Female	4 th Year
132	Male	1 st Year
133	Male	2 nd Year
134	Male	2 nd Year

Table G12

Quantitative Data: Participants Identified as Volleyball Players

Student Athlete Reference Number	Gender	Year in School
135	Female	1 st Year
136	Female	3 rd Year
137	Female	4 th Year

Note. Only females participate in Volleyball at ECU.

APPENDIX H: STUDENT ATHLETE “YES” RESPONSES BY YEAR

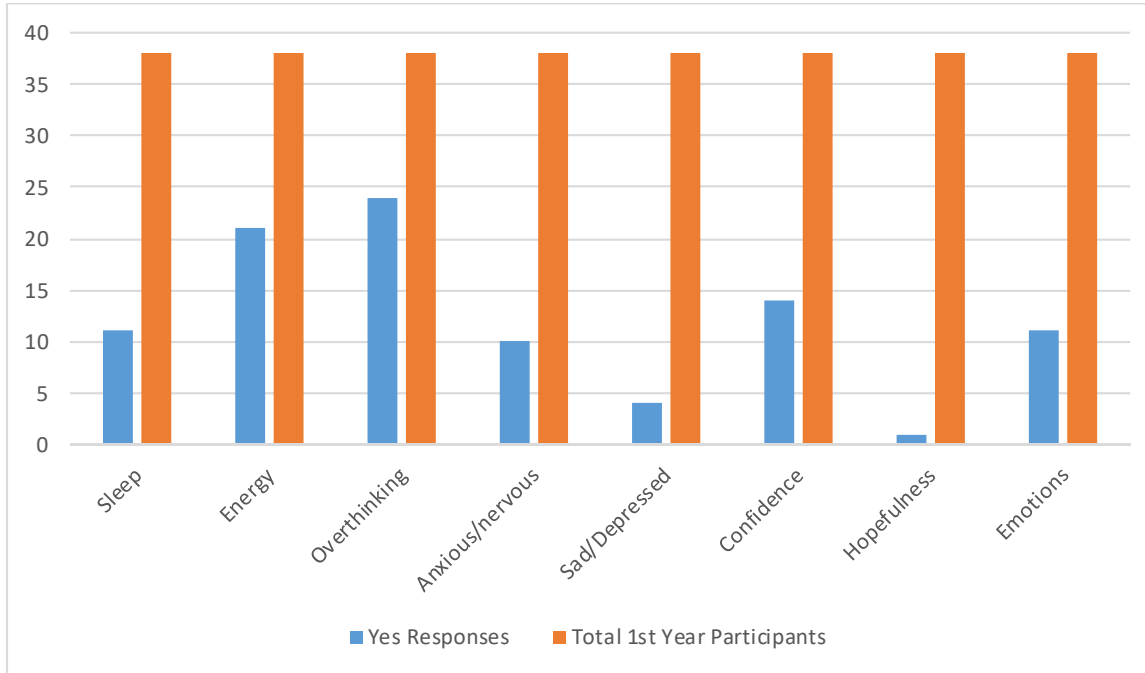


Figure H1. Identified 1st year participants, yes responses to the 8 question screening tool.

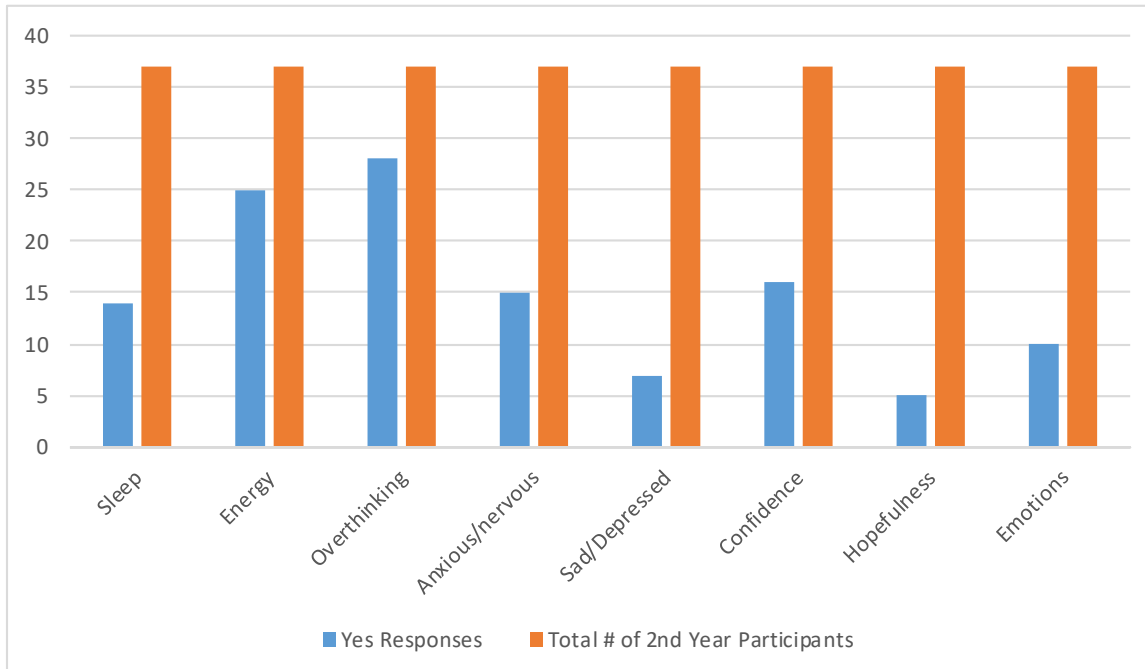


Figure H2. Identified 2nd year participants, yes responses to the 8 question screening tool.

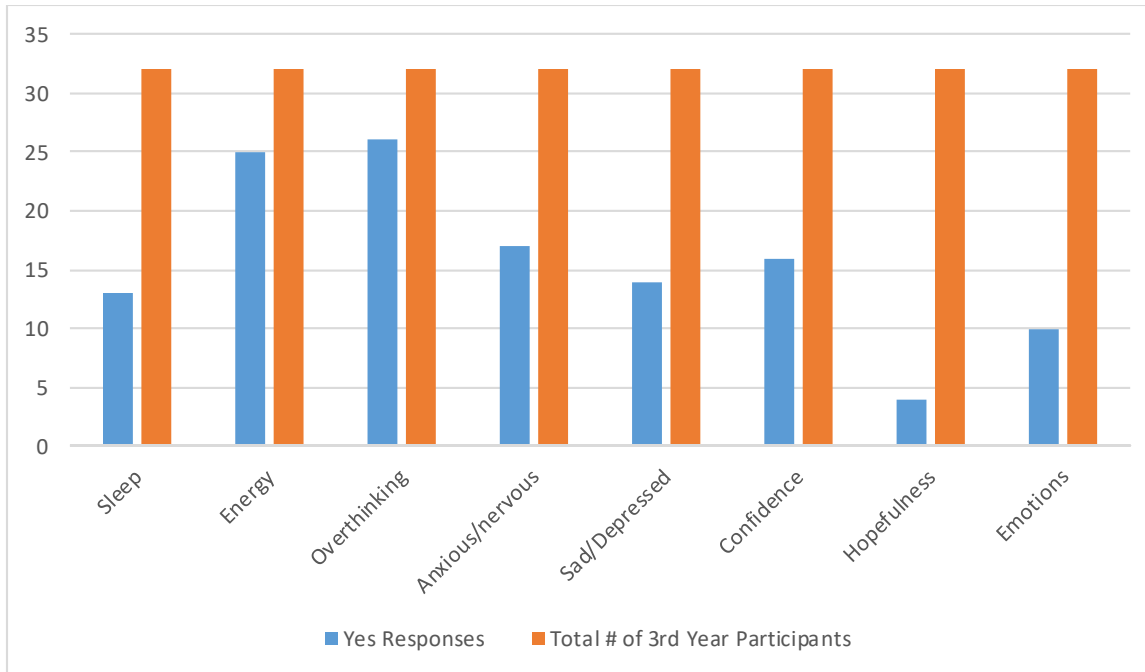


Figure H3. Identified 3rd year participants, yes responses to the 8 question screening tool.

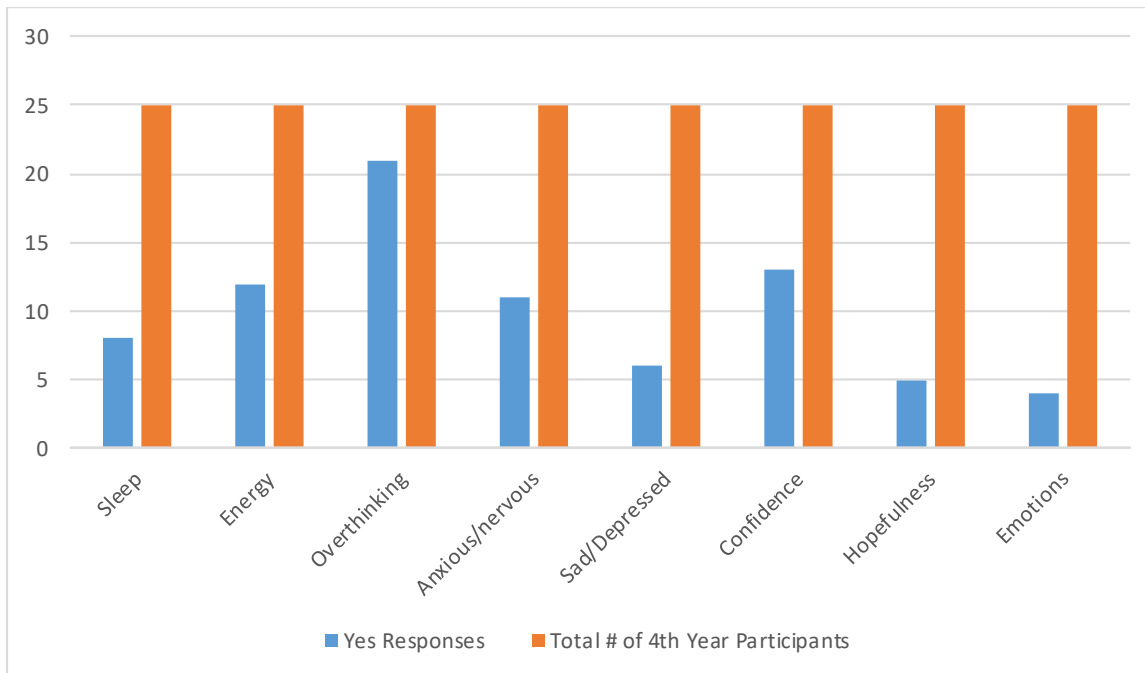


Figure H4. Identified 4th year participants, yes responses to the 8 question screening tool.

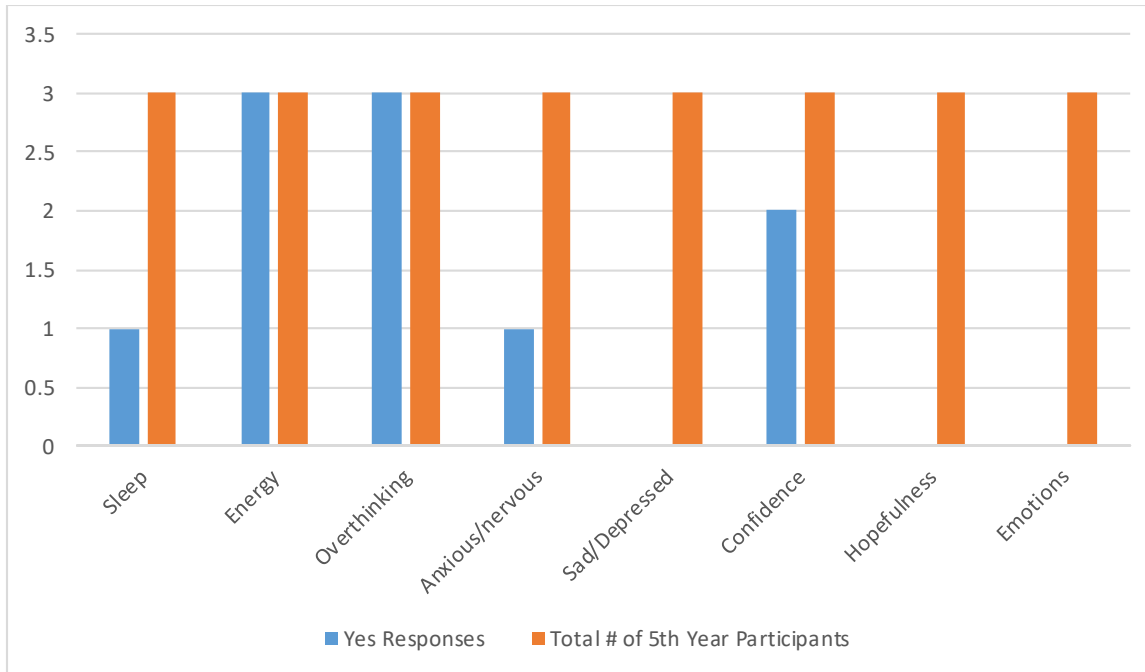


Figure H5. Identified 5th year participants, yes responses to the 8 question screening tool.

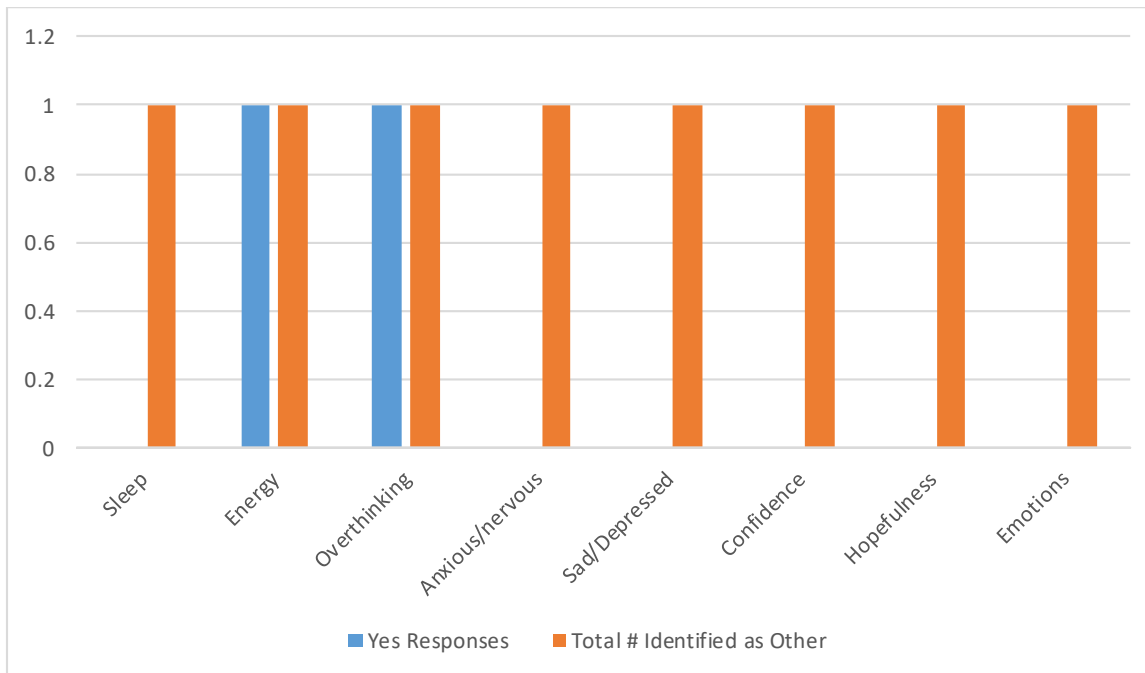


Figure H6. Identified other year participants, yes responses to the 8 question screening tool.

APPENDIX I: STUDENT ATHLETE “YES” RESPONSES BY TEAM

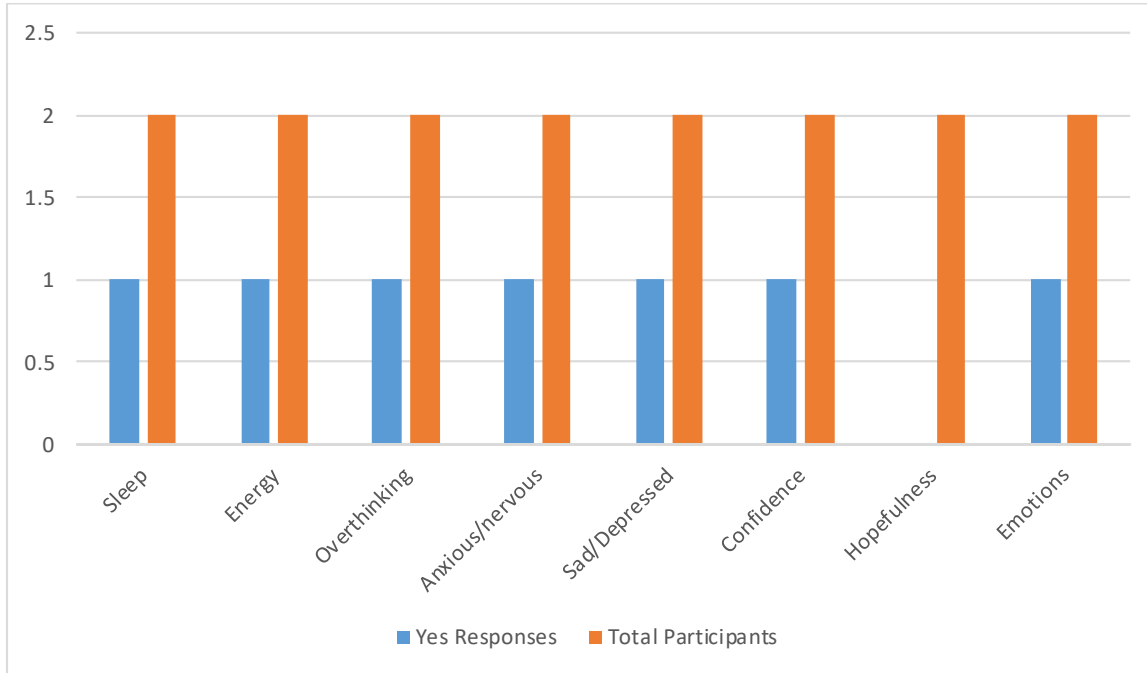


Figure 11. Baseball screening tool yes responses compared to total number of team participants.

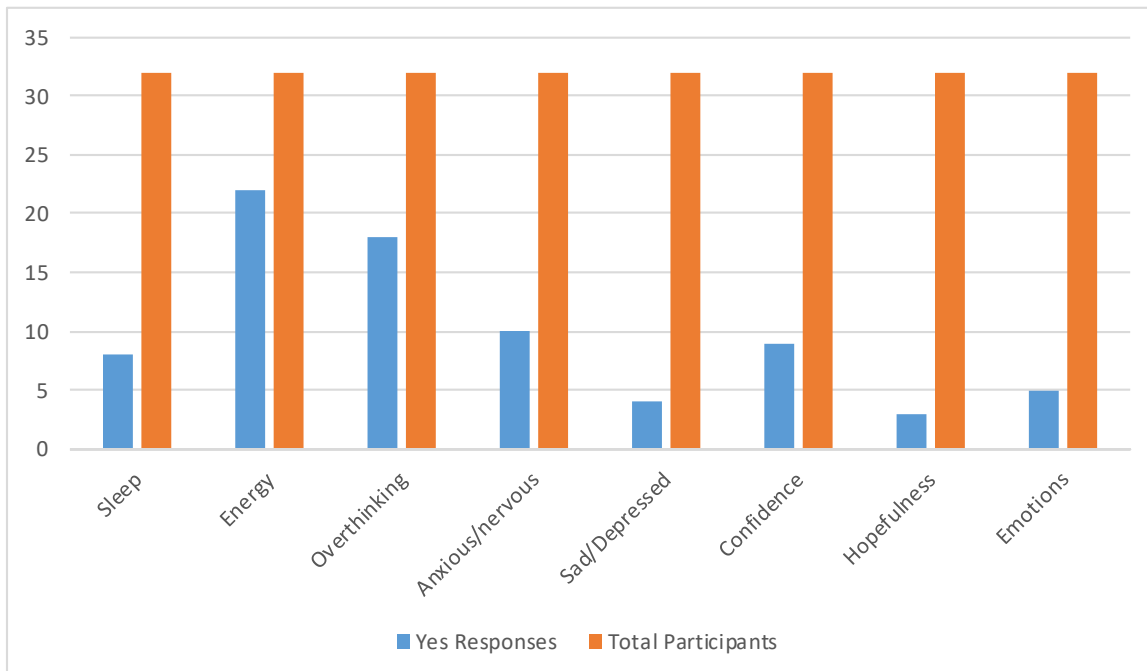


Figure 12. Cheerleading screening tool yes responses compared to total number of team participants.

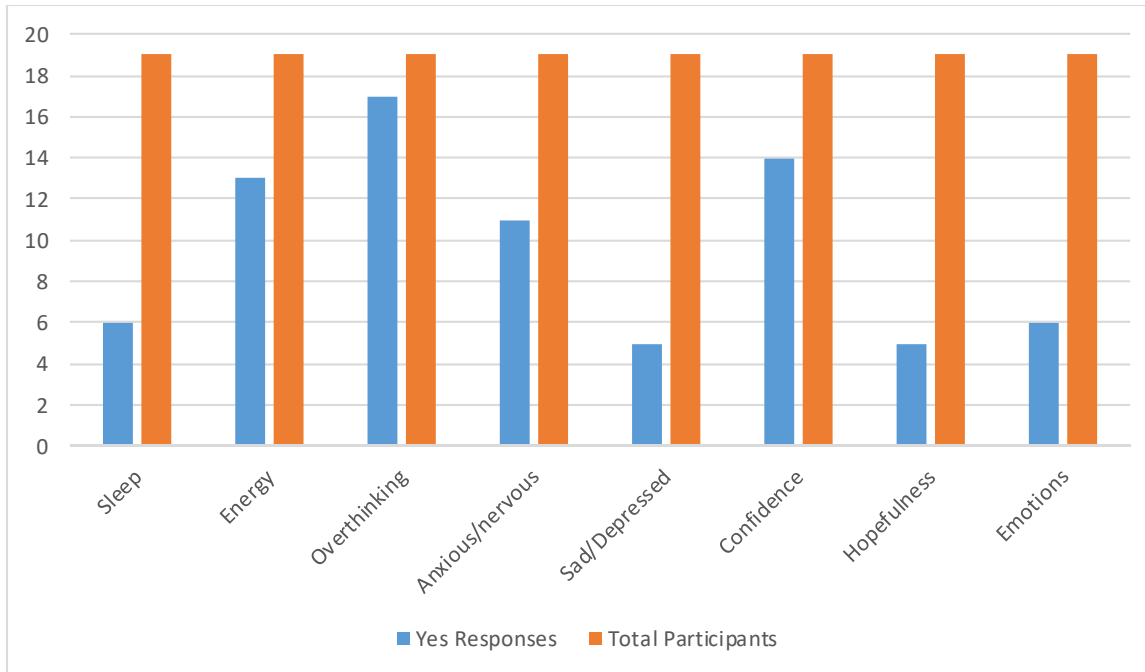


Figure I3. Dance Team screening tool yes responses compared to total number of team participants.

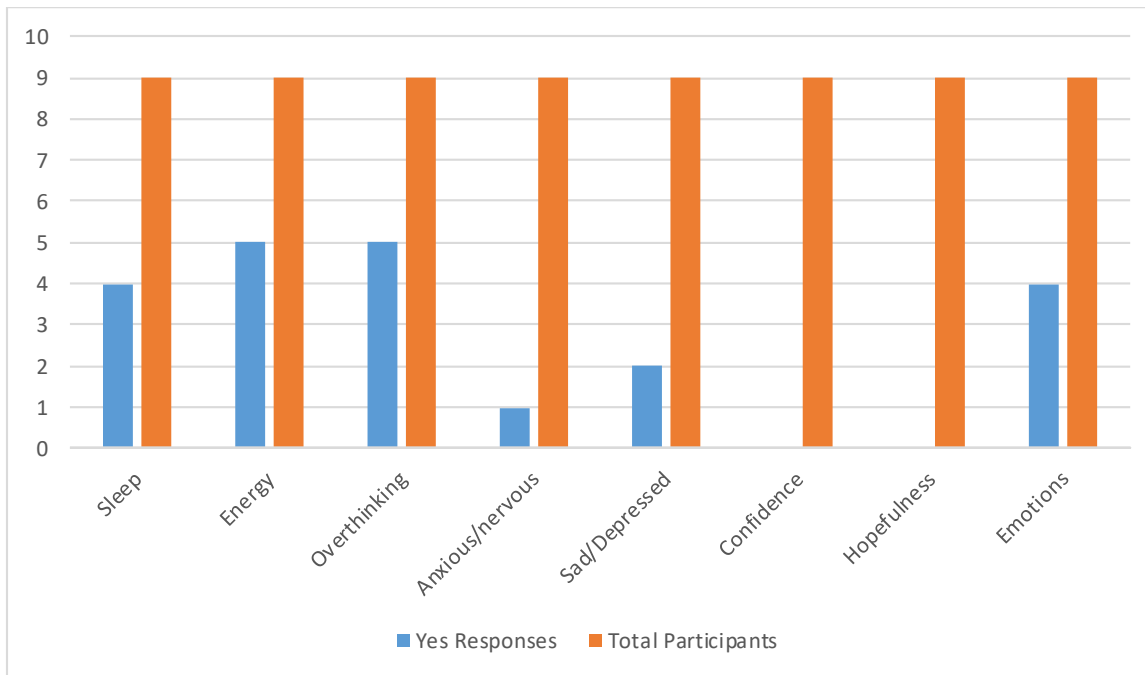


Figure I4. Football yes responses to the 8 questions screening tool compared to total number of team participants.

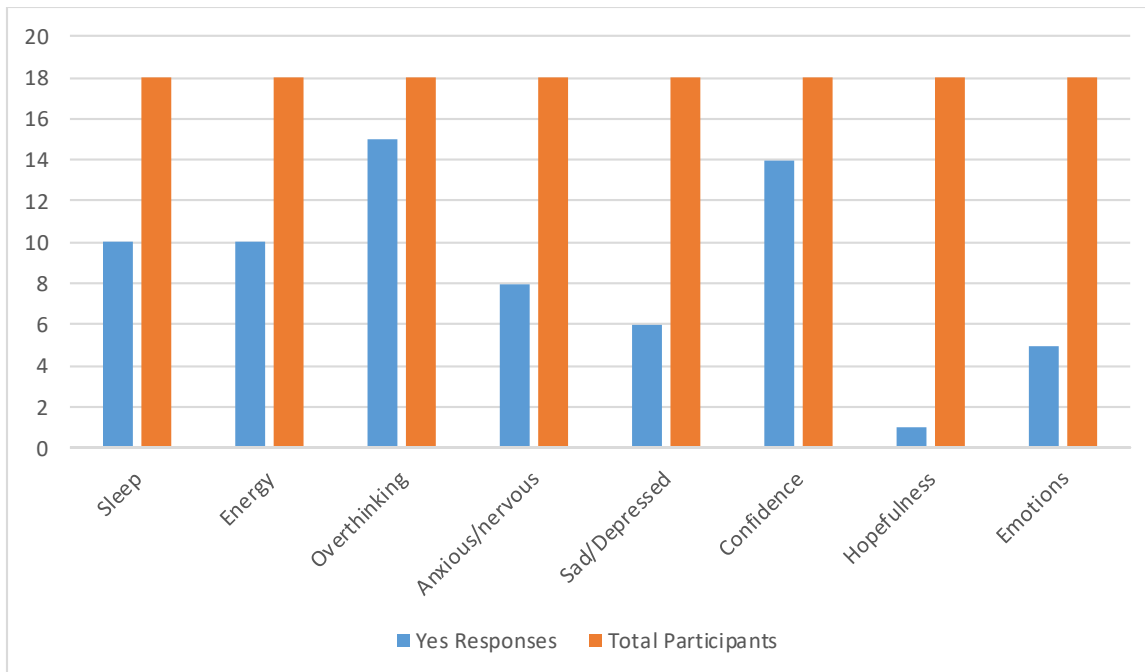


Figure I5. Lacrosse screening tool yes responses compared to total number of team participants.

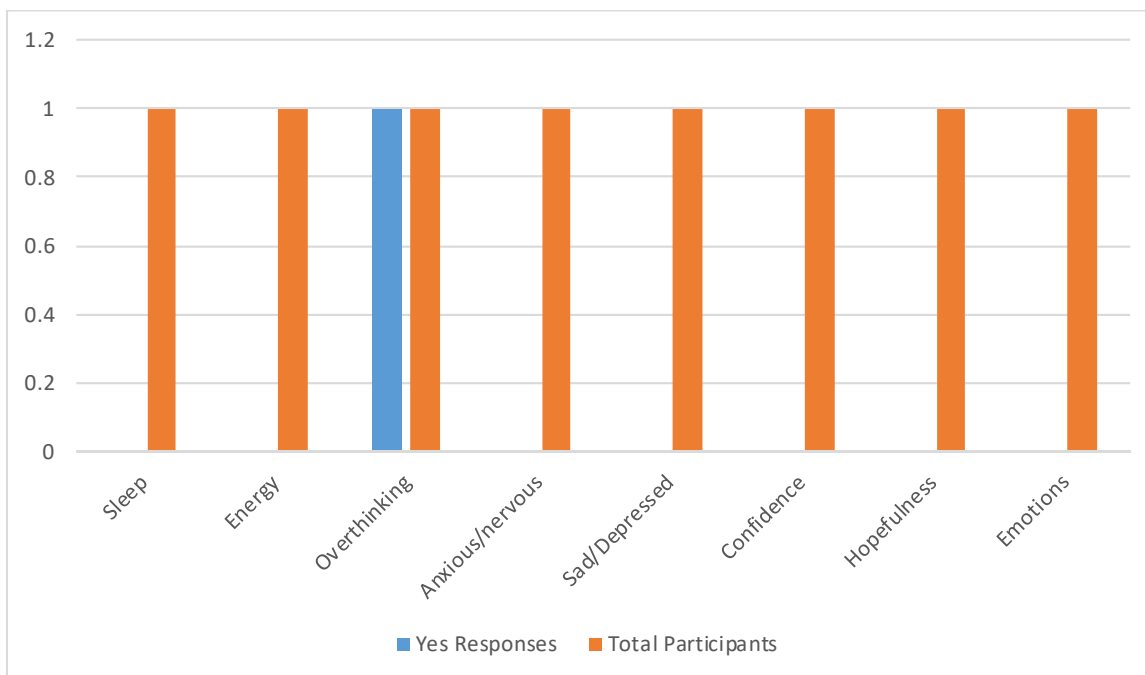


Figure I6. Men's Basketball screening tool yes responses compared to total number of team participants.

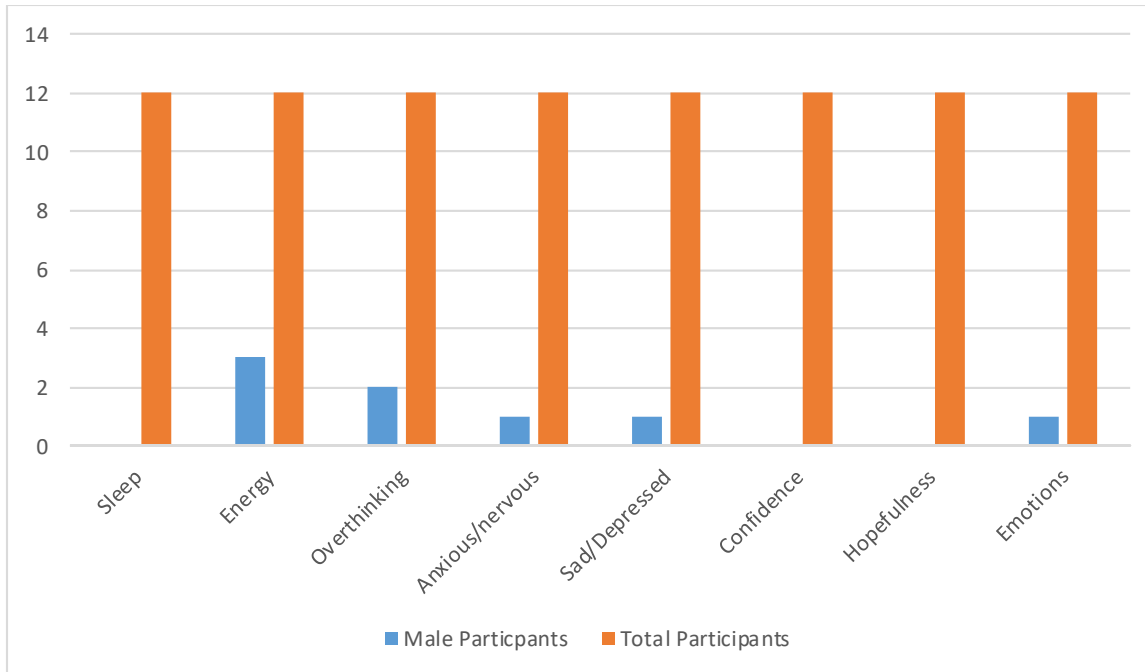


Figure 17. Men's Cross Country screening tool yes responses compared to total number of team participants.

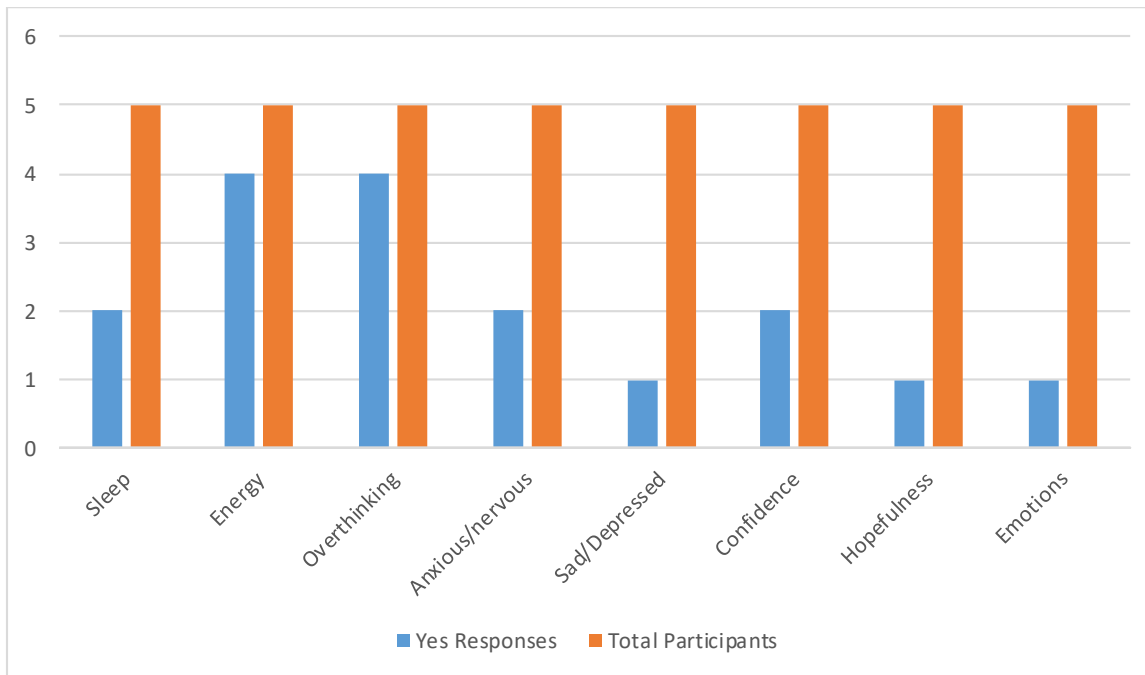


Figure 18. Men's Golf screening tool yes responses compared to total number of team participants.

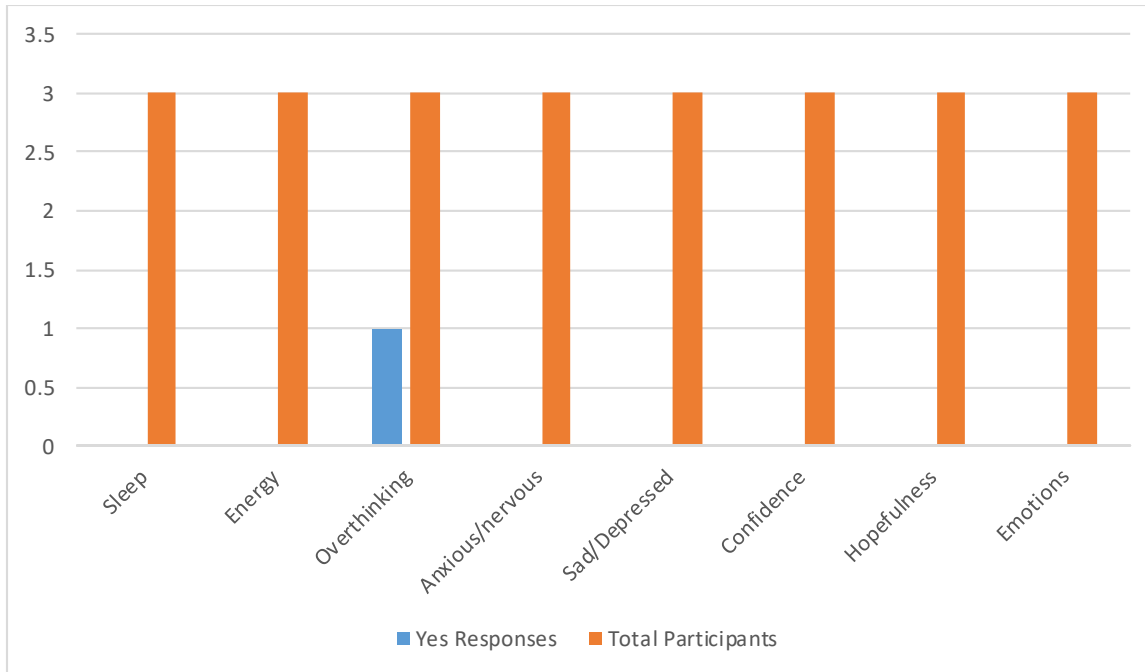


Figure I9. Men's Track and Field screening tool yes responses compared to total number of team participants.

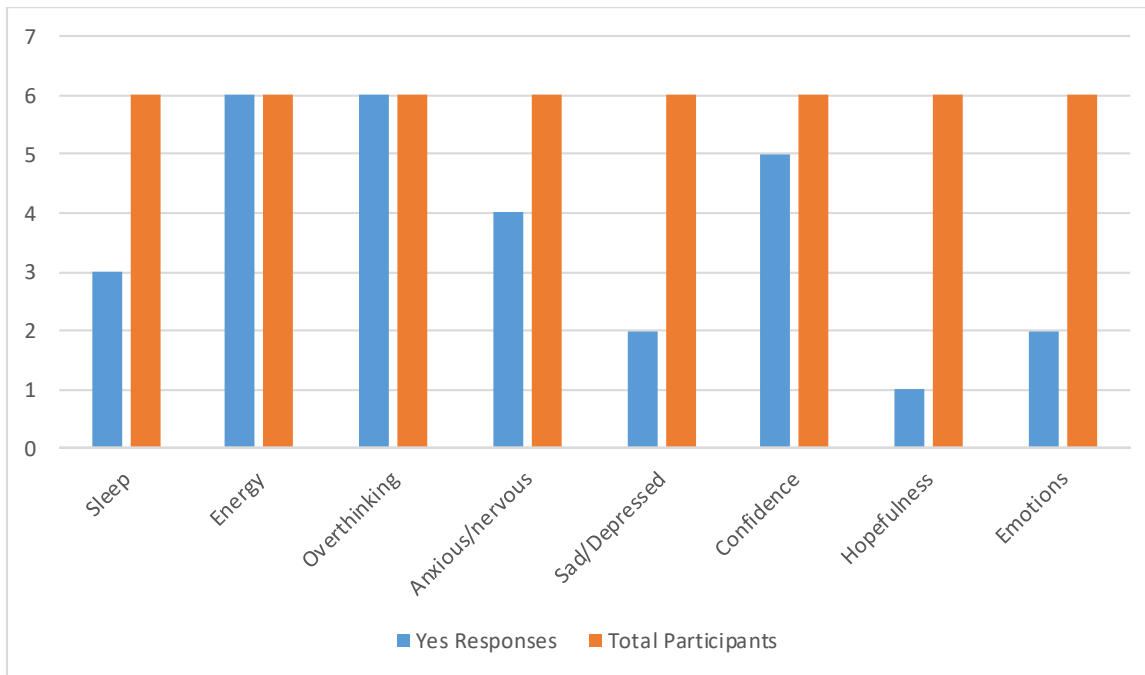


Figure I10. Soccer screening tool yes responses compared to total number of team participants.

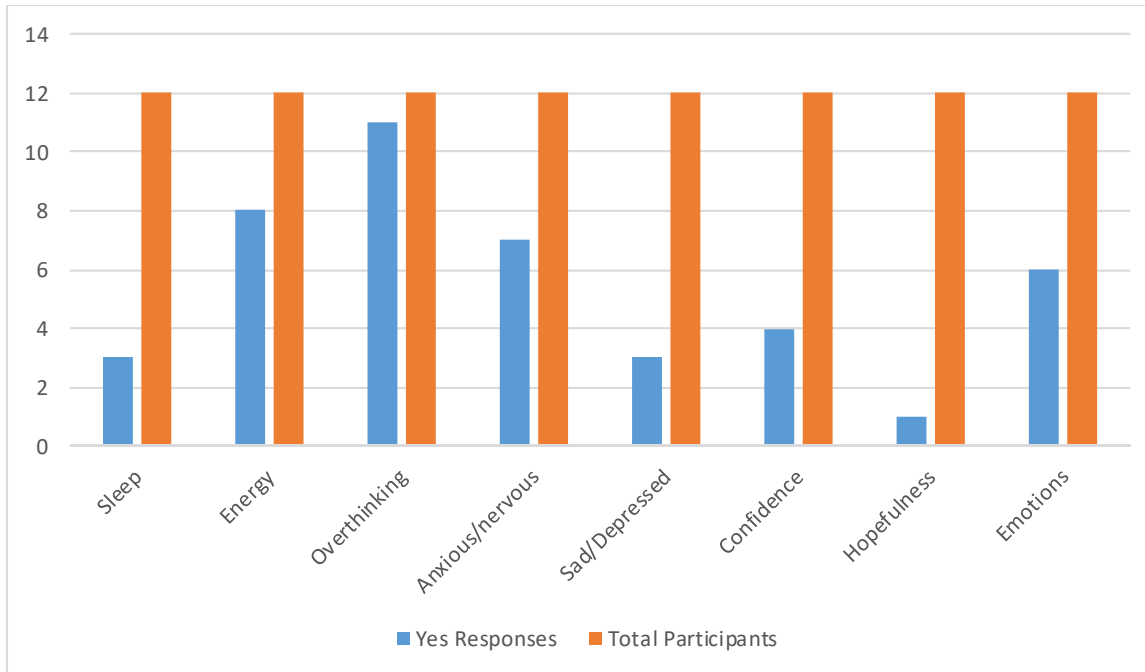


Figure I11. Softball screening tool yes responses compared to total number of team participants.

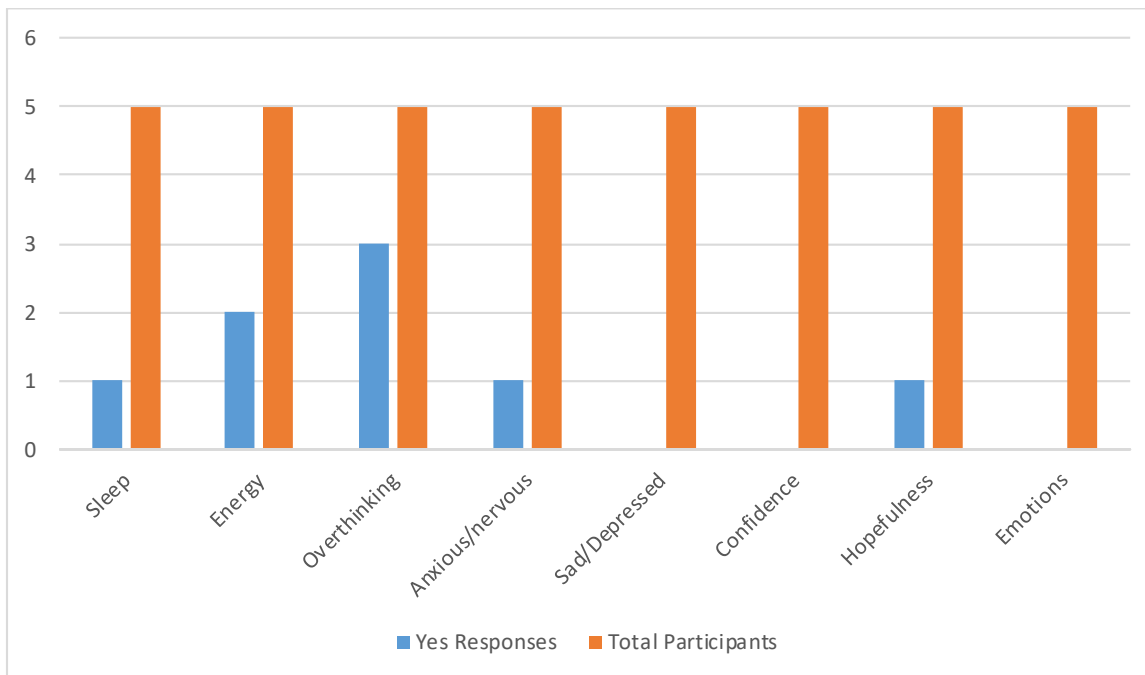


Figure I12. Women's Basketball screening tool yes responses compared to total number of team participants.

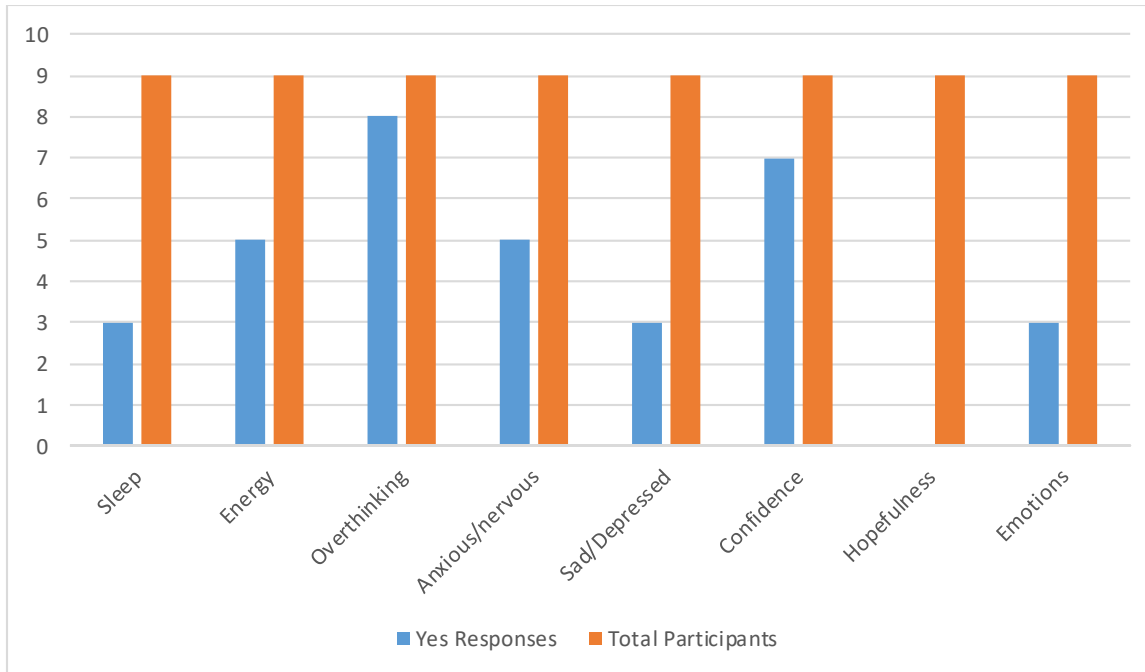


Figure 113. Women's Cross Country screening tool yes responses compared to total number of team participants.

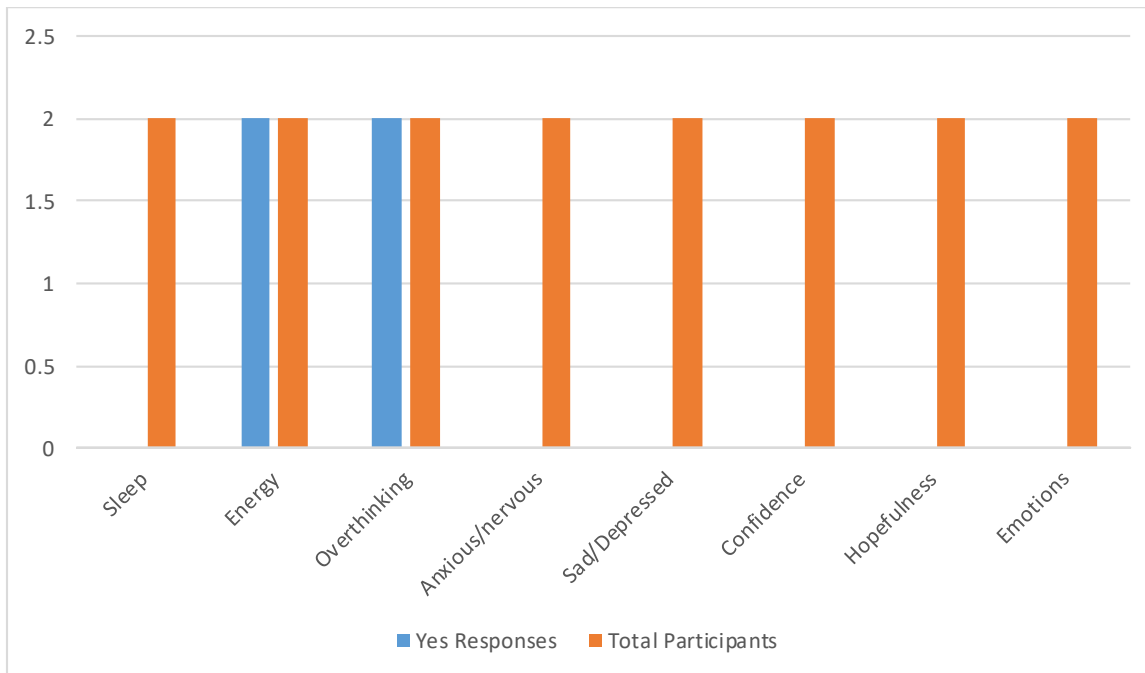


Figure 114. Women's Golf screening tool yes responses compared to total number of team participants.

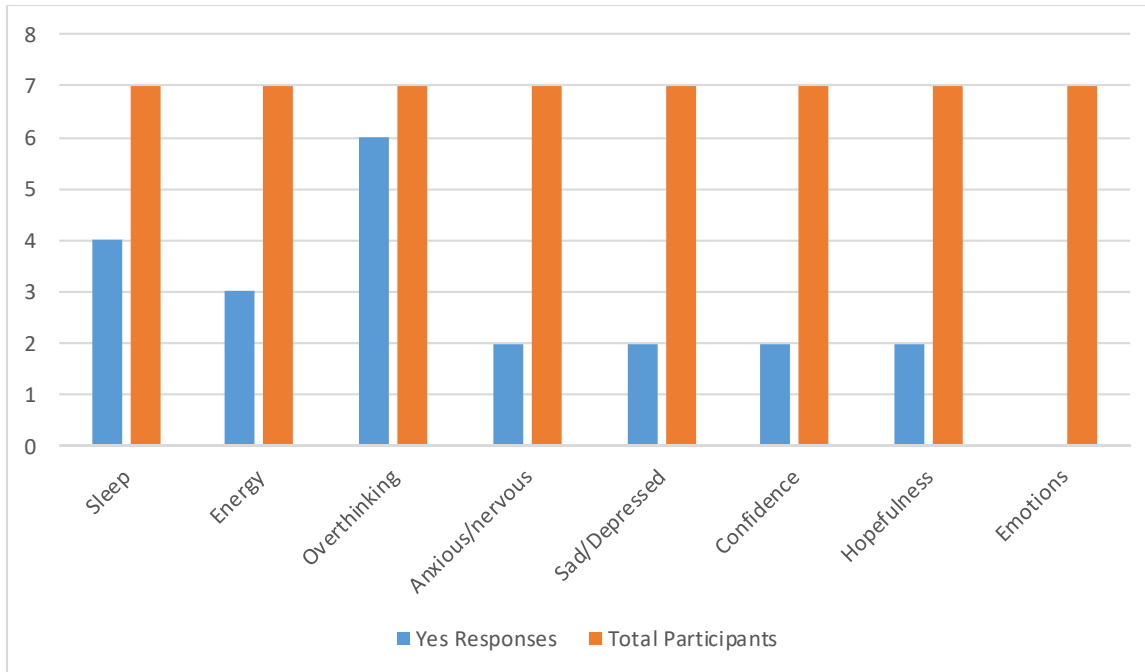


Figure I15. Women’s Track and Field screening tool yes responses compared to total number of team participants.

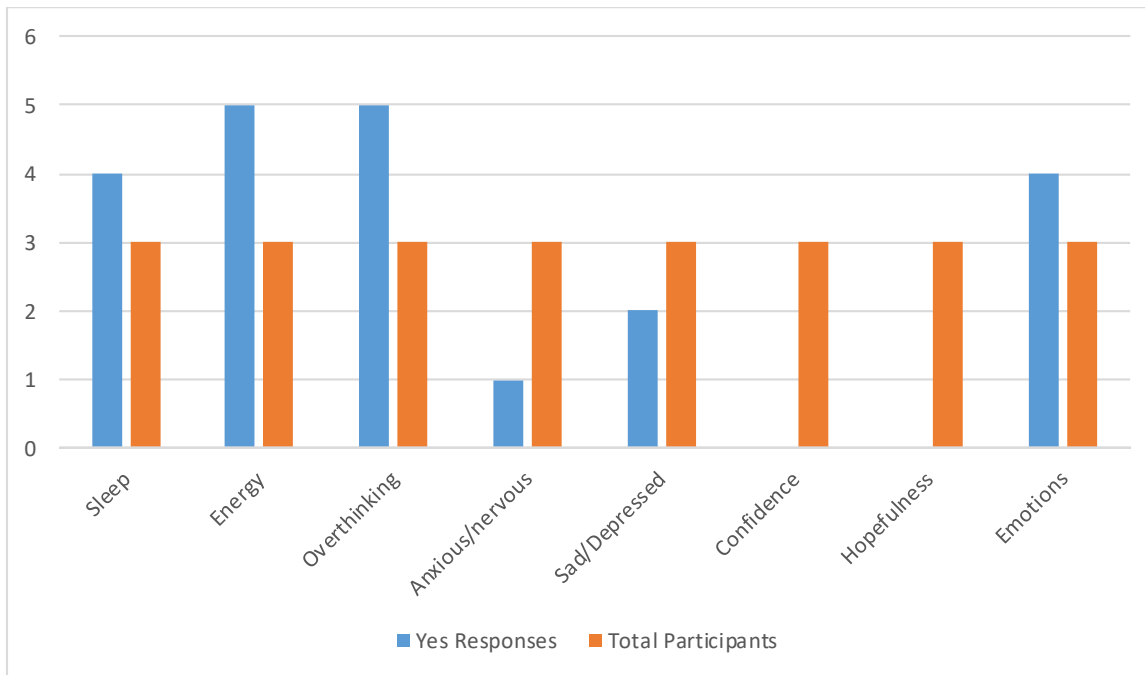


Figure I16. Volleyball screening tool yes responses compared to total number of team participants.

