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Student-Athlete Perception of Coaching Leadership Behaviors' Influence on Mental Health Symptoms Associated with Anxiety, Depression, Suicidality, and Substance Abuse

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Student-Athlete Perception of Coaching Leadership Behaviors' Influence on Mental Health Symptoms Associated with Anxiety, Depression, Suicidality, and Substance Abuse

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DEDICATION

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Chapter 1: Introduction

Typically, when a discussion occurs regarding college athletics and student-athletes, the conversation usually centers around physical injury and/or performance (Neal et al., 2015; Thompson & Sherman, 2007). However, over the years more attention is being focused on the mental health aspect of student-athletes' well-being (Beauchemin, 2014; Buchanan, 2012; Miller & Hoffman, 2009; Van Rensburg, Surujlal, & Dhurup, 2011). Utilizing Engel's biopsychosocial model (Borrell-Carrió, Suchman, & Epstein, 2004; Engel, 1977), and social support theory (Robbins & Rosenfeld, 2001; Rosenfeld, Richman, & Hardy, 1989), the researcher sought to explore student-athletes' mental health from a multilayer, holistic framework. In addition, the researcher also sought to gain awareness and understanding of how student-athletes' perceptions of coaching leadership behavior may or may not affect the mental well-being of student-athletes (Beauchemin, 2014; Etzel, 2006; Gill, 2008, 2014; Thompson & Sherman, 2007).

The coach-athlete relationship is critical to student-athlete performance. More specifically, the influence of the head coach on his or her athletes is related to overall student well-being (Horn, 2008; Locke, Bieschke, Castonguay, & Hayes, 2012; Stebbings, Taylor, Spray, & Ntoumanis, 2012). However, Stirling and Kerr (2009) indicated that not every head coach's influence is positive. Currently, there is an overall gap in the literature regarding the mental health of athletes; therefore, this study is warranted (Beauchemin, 2014; Brown & Blanton, 2002; Donohue, Pitts, Gavrilova, Ayarza, & Cintron, 2013; Noren, 2014; Reardon & Factor, 2010; Hughes & Leavey, 2012). Chapter 1 discusses the prevalence of mental health disorders such as anxiety, depression, suicidality, and substance abuse in this country as it relates to the general population, college students, and the subject population of the study, student-athletes.

Examples of student-athletes who struggled with mental illness while in college represent a foundation for the discussion surrounding the impact of mental illness on the student-athlete. The impact of the head coach's leadership behavior and behavior in addressing the student-athletes' mental health, psychological, and social needs will be discussed. These examples serve as a framework for the discussion and relevance of this study in determining how student-athletes' perceptions of coaching leadership behavior impact their mental health. In addition, the discussion explores whether there are any changes, specifically an exacerbation or alleviation of symptoms, of several disorders that occur because of the student-athletes' perception of their head coach's leadership behavior. Next, the statement of the problem, the purpose of the study, conceptual framework, research questions, research design, data analysis, sample, delimitations, limitations, organization significance of the study, and the definition of key terms will be addressed, followed by the nature of the study and its significance.

Mental illness is a prevalent phenomenon in this country (National Alliance on Mental Illness [NAMI], 2015). In fact, in 2012 there were an estimated 43.7 million people suffering from some type of mental illness (National Institute of Mental Health [NIMH], 2015). It is estimated that one in four adults over the age of 18 in the United States experience the symptoms of one or more disorders (Reeves et al., 2011; Salzer, 2012). Recent statistics from the National Alliance of Mental Illness (NAMI, 2015) showed that one in five individuals ages 13 to 18 and 18 and over suffer from a mental health disorder. Not only is mental illness common in the general population, a growing number of college students are experiencing these disorders (Hunt & Eisenberg, 2010). Traditional college students are at an increased risk for the onset or exacerbation of symptoms due to their age, 18-24 (American Psychiatric Association [APA], 2013). Neal et al. (2015) indicated that there is an increase in the percentages of mental illnesses

in young adults between the ages of 18 and 25. Hunt and Eisenberg (2010) acknowledged that about one half of young adults who develop a mental health disorder in the U.S. have a psychiatric diagnosis by age 24. Recent data from NAMI (2015) indicated an increase in this statistic during the last five years, reporting that 75% of mental health conditions are developed by age 24.

College students have multiple social and environmental factors that influence their mental health and cause psychological problems (Cleary, Walter, & Jackson, 2011; Etzel, 2006; Van Rensburg et al., 2011). These factors include transitioning from adolescence to adulthood, academic pressures, performance demands, physical strain, and difficulty with peer relationships (Etzel, 2006; Vankim & Nelson, 2013). Symptoms such as isolation, withdrawal, and hopelessness are associated with disorders like depression (Watson, 2005; Watson & Kissinger, 2007).

One group that is easily overlooked in the area of mental illness in general, but more so in the college environment, are student-athletes (Watson, 2005). Neal et al. (2015) of the National Athletic Trainers' Association, acknowledged that given the prevalence of mental health issues for young adults between the ages of 18 and 25, there is a consensus that clinicians, athletic departments, administration, and staff will encounter student-athletes with psychological concerns. Typically, student-athletes are not considered vulnerable to mental illness due to the perception by the public that they are healthy individuals who are in prime physical condition and supposedly have many resources available that help in the management of social and emotional concerns (Etzel, 2006; Gill, 2008). However, more and more this perception is not truly the reality; mental illness and the rise in psychiatric disorders are being seen in student-

athletes at an alarming rate (Beauchemin, 2014; Gill, 2008; Noren, 2014; Watson & Kissinger, 2007).

The college student-athlete is at equal or greater risk of experiencing adjustment issues, emotional concerns, and other psychological distress (Locke et al., 2012; Watson & Kissinger, 2007). External demands, such as academic burdens, coaches' expectations, and family pressures can increase the potential for disorders such as anxiety, depression, substance abuse, or suicidal behavior in this vulnerable population (Lafrenière, Jowett, Vallerand, & Carbonneau, 2011; Mageau & Vallerand, 2003; Thompson & Sherman, 2007). Student-athletes place significant emphasis on their identity as athletes and often, threats to that identity occur in the form of struggling performance, a chronic or career-ending injury, or issues with their head coach and teammates (Neal et al., 2015). If unchecked, these issues can result in the development or the exacerbation of a mental health disorder (Mageau & Vallerand, 2003; Watson & Kissinger, 2007).

It is incumbent on this nation to begin to confront the very real issues of mental health symptoms associated with mental health disorders in our society and our universities. The issue of college student mental health captured the attention of the U.S. administration (White House, 2013). President Barack Obama encouraged the formation of a task force to study the prevalence of mental illness on the college campus. The President's stated goal was to bring mental illness to the forefront, ending stigma, and bringing mental health concerns into the national dialogue. In one such initiative, NAMI partnered with the National PanHellenic Conference and North American Interfraternity Council to deliver mental health education presentations on approximately 800 campuses beginning in the fall of 2013 (Fitzpatrick, 2013).

Mental Illness among Student-Athletes

Mental illness can have a devastating impact on an athlete's life. Royce White was a formidable student-athlete at Iowa State University from 2010 to 2012, known for his talent as a basketball player. Bleacher Report's guest columnist, David Siebert, M.D., stated that, "when we think of an athlete's health we think ACLs, hamstrings, and fractures. Royce White reminds us that just as important is the health of the mind" (Siebert, 2012, para. 1). White was diagnosed with generalized anxiety disorder and obsessive compulsive disorder (DeCaro, 2013; Siebert, 2012). His symptoms of generalized anxiety involved excessive worry regarding different events and situations that were difficult to control, feelings of tension, restlessness, and being wound up, concentration problems, difficulty with sleep, racing heartbeat, hyperventilation, and muscle tension (APA, 2013; Siebert, 2012). His obsessive-compulsive disorder included fixated, intrusive or disturbing thoughts, impulses, or images that caused anxiety or distress (APA, 2013). White acknowledged that having a mental illness can be referred to as "suffering" (Medcalf, 2012, para. 71).

White endured significant distress and problems functioning in daily life because of his mental illness (Medcalf, 2012; Siebert, 2012). A part of White's obsessive compulsive disorder was his significant fear of flying. Flying is an integral part of any athlete's collegiate or professional experience, and could be a major barrier in his college career (Medcalf, 2012; Moore, 2014; Siebert, 2012). However, despite his mental illness, White had tremendous success as a student-athlete (DeCaro, 2013).

While at Iowa State University, White's coaches and the entire athletic department were sensitive to his mental health needs, developed his talent, provided the type of supportive environment with interventions, and a coaching leadership behavior that led White to become a

number 16 pick in the 2012 NBA draft (DeCaro, 2013; Moore, 2014). White's coaches in college provided evidence that this supportive approach was a win-win for everyone (Moore, 2014). Head coach Fred Hoiberg's coaching behavior at Iowa State University was critical in the success not only of his basketball program and team, but personally with White.

Hoiberg's willingness to pursue White to play basketball at Iowa State University, despite his mental health struggles and other issues, his encouragement and praise regarding this athlete, and the care he took in working with White, led to the program's ascension as a top basketball program in the country (Moore, 2014). White and others, including coaches and other student-athletes, credit Hoiberg with skills such as patience to understand where the athlete is physically and mentally, a reserved and calm demeanor, and the ability to be not only head coach, but a mentor, life coach, and caring leader.

Will Heinenger is another student-athlete, a football player from the University of Missouri, who discussed his symptoms of depression with ESPN (Noren, 2014). Heinenger exhibited symptoms associated with depression, which included depressed mood, tearfulness, and a sense of being overwhelmed. It was his athletic trainer/coach from the University of Missouri who noticed his symptoms, pulled him aside, talked with him, and referred him to a social worker who worked with the Athletic Department.

These student-athletes are only two examples of many who suffer from symptoms associated with mental health disorders. Statistics show that in any given year, thousands of student-athletes struggle with mental health disorders (Noren, 2014). In fact, Watson and Kissinger (2007) reported that 10-15% of student-athletes have mental health issues and need counseling. Therefore, due to the prevalence of mental illness in this population, there is cause to

explore all possible factors that may lead to changes in symptoms associated with mental illness in student-athletes.

Royce White and Will Heinenger had coaches and administrators who demonstrated a compassionate leadership behavior that provided the care, support, and guidance that led to the student-athletes' success, even though these individuals had mental health disorders (Medcalf, 2012; Noren, 2014; Siebert, 2012,). However, not every head coach has that supportive behavior of coaching; some exhibit more authoritarian behaviors that also influence the student-athletes' ability to maintain positive mental health (Fox, 1999; Hodge & Lonsdale, 2011; Stirling & Kerr, 2009). Though the head coach may have a positive influence on his or her athletes, there is emerging literature that speaks of issues of abuse and the power of the coach that can be considered a contributing factor to the mental and emotional well-being of the student-athlete (Gearity & Murray, 2011; Hodge & Lonsdale, 2011). Therefore, considering the possibility of positive and negative influences of coaching leadership behavior, this study is necessary to determine the relationship coaching leadership behavior may have to symptoms associated with four major mental health disorders: anxiety disorder, depression, suicidal behavior/suicidality, and substance abuse. The student-athletes' perceptions of coaching leadership behaviors influencing changes, such as the exacerbation or alleviation in symptomology will also be examined. Consequently, this study encompasses a brief overview of mental health issues in the United States, its prevalence among college students, and gives special attention to the student-athlete. Student-athletes such as Heininger and White (Medcalf, 2012; Moore, 2014; Noren, 2014; Siebert, 2012), who suffered from mental illness, reveal just how vital it is to add to the body of knowledge with additional inquiry. Coaches, athletic trainers, and athletic administrations have a social role and should have an obligation to care not only for the student-

athletes' physical injuries but their mental health injuries as well (Corrie & Palmer, 2014; Jowett & Ntoumanis, 2004; Moen & Federici, 2013).

The head coach is the most influential person when it comes to the success of the athlete, yet there is little research available to identify ideal coaching behaviors and factors that influence certain athlete response (Williams et al., 2003). It is from the theoretical framework of biopsychosocial model (Borrell-Corrio et al., 2004; Engel, 1977) and social support theory advanced by multiple researchers (Feeney & Collins, 2015; Robbins & Rosenfeld, 2001; Rosenfeld et al. 1989; Yang, Peek-Asa, Lowe, Heiden, & Foster, 2010) that the literature was investigated to determine student-athletes' perceptions of their head coach's leadership behaviors, and how these behaviors may or may not impact student-athletes' psychological health. The researcher explored the relationship between symptoms associated with four mental health disorders displayed in student-athletes and their perception of their head coach's leadership behaviors. The degree to which the connection between the two sets of variables impact the athlete, exhibiting changes, such as an exacerbation or alleviation of symptoms identified by the athlete was also investigated.

Statement of the Problem

Student-athletes encounter not only the stresses of being a college student but also the added gravities of being an athlete (Watson & Kissinger, 2007). These pressures, coupled with the demands and expectations of the coach, can have a substantial impact on the college student and his or her mental health and well-being (Beauchemin, 2014; Cleary et al., 2011; Lafrenière et al., 2011; Mageau & Vallerand, 2003; Watson, 2005). Athletes are viewed as the epitome of health due to their physical appearance and talent set; however, it is their psychological health that needs significant attention (Etzel, 2006).

There is an increase in issues like depression, suicidal behavior, and substance abuse on college campuses (Kenney & Labrie, 2013), and student-athletes are at equal or greater risk for psychological issues (Locke et.al, 2012; Thompson & Sherman, 2007). Kenney and Labrie (2013) reported that 18% of college students studied met the criteria for a mental health diagnosis. Buchanan's (2012) review of the literature cited ACHA-NCHA data from 2008. In this comprehensive survey of over 80,000 college students from 106 institutions, 14% of study participants reported a diagnosis of depression at one point in their lives. Furthermore, 32% of those students who reported a history of depression were diagnosed within the past year.

However, though some research exists regarding depression within the collegiate student-athlete population (Buchanan 2012; Thompson & Sherman, 2007; Weigand, Cohen, & Merenstein, 2013), there is a lack of scholarly study regarding other psychiatric disorders such as anxiety, suicidality, and substance abuse disorders in athletes, and more high quality studies are needed (Reardon & Factor, 2010). More robust research inquiry is needed to understand and address the mental health problems of late adolescents and young adults, especially in the college student-athlete population (Hunt & Eisenberg, 2010).

How a head coach interacts with his or her student-athletes and how the athletes perceive the impact of the head coach is very important (Mageau & Vallerand, 2003; Moore, 2014; Nunn-Cearns, 2009). Stirling and Kerr (2009) and others (i.e. Mageau & Vallerand, 2003; Norman & French, 2013) promoted the idea that the coach-athlete relationship is one of the most influential relationships in an athlete's life. It is within this relationship that a head coach exerts great power over the athlete and his or her development toward success, both athletically and as an individual.

The coach-athlete relationship and the head coach's leadership behaviors are also significant because the influence and power of the coach can be both positive and negative (Stirling & Kerr, 2009). The potential negative influences of the student-athletes' perception of coaching leadership and the coach-athlete relationship cannot be ignored. Athletes are not immune from experiences of physical, sexual, and emotional abuse from their coach. Yukhymenko-Lescroart, Brown, and Paskus (2015) determined that abusive or negative supervision by a head coach impacts the student-athlete and can lead to anxiety, depressive symptoms, and difficulty coping. In fact, the power and influence of the head coach is considered one of the main risk factors in abusive relationships (Fox, 1999; Stirling & Kerr, 2009).

Another concern is that the head coach and athletic personnel often do not have familiarity or knowledge in identifying symptoms associated with anxiety, depression, suicidality, and substance abuse, which can lead to the underutilization of mental health services by student-athletes (E. A. Storch, Storch, Killiany, & Roberti, 2005). This study was designed to create new knowledge regarding the influence of coaching leadership behavior, and expose a possible correlation between the head coach's leadership behaviors and any changes, including the exacerbation or alleviation of symptoms associated with anxiety, depression, suicidality, or substance abuse issues, in student-athletes.

Purpose of the Study

The purpose of this research study was to investigate a correlation between mental health symptoms associated with disorders such as anxiety, depression, suicidality, and substance abuse and student-athletes' perceptions of Chelladurai and Saleh's (1980) five coaching leadership behaviors: training and instruction, autocratic, democratic, social supportive, and positive

feedback's impact on their mental health. Secondly, researchers such as Fox (1999) and Stirling and Kerr (2009) have noted that the coach's influence is crucial, as it can be both positive and negative; therefore, the researcher sought to determine if there are any changes such as an exacerbation or alleviation in symptomology based on the student-athlete's perception of his or her coach's leadership behavior.

Biological, psychological, social, and environmental factors influence mental illness (Borrell-Corrio et al., 2004; Myers, Vargas-Tonsing, & Feltz, 2005); however, the social and environmental impact of student-athletes' perceptions of their coach's leadership behaviors are areas that need further exploration (Hughes & Leavey, 2012). Felton and Jowett (2013) agreed that within the coaching relationship, an exploration of the coaching relationship with the student-athlete would help to identify an improvement in well-being or the presence of illness.

Finally, the researcher attempted to increase the understanding of symptoms associated with mental health disorders in student-athletes while contributing to an increased awareness of the effect of perceived coaching behaviors on mental health among this population. With this research, appropriate college level interventions and/or policies can be put in place to address the needs of the student-athlete's mental health and well-being and at the same time encourage the use of flexible coaching methods that will enhance the health and welfare of the student-athlete.

The Symptoms Assessment Measure created by the researcher, and the Leadership Scale for Sports (Chelladurai & Saleh, 1980) are the two instruments chosen to explore the relationship between the two variables. The biopsychosocial model (Borell-Corrio et al., 2004; Engel, 1977; Myers et al., 2005) and social support theory (Robbins & Rosenfeld, 2001; Rosenfeld et al., 1989) were used as the theoretical framework of this study.

Significance of the Study

This dissertation offers an exploration into identifying a connection between the student-athlete's perception of coaching leadership behaviors and the student-athlete's mental health. Due to the importance of the coach-athlete relationship, the power and influence a head coach has over the student-athlete (Locke et al., 2012; Stirling & Kerr, 2009; Watson & Kissinger, 2007), and the college student-athlete's potential for a greater risk of adjustment issues and emotional distress, this research study was warranted to determine possible factors that influence the athlete's well-being (Watson & Kissinger, 2007). The propensity for the pressures of athletic and academic performance, injury, change in environment, and a reduction in support systems, elevates the need for an exploratory study of this type. Understanding the interplay between coaching behaviors and student-athlete mental health will increase awareness of the impact a head coach's leadership behaviors have on student-athlete's health and well-being (Etzel, 2006).

This examination will add to the body of knowledge regarding mental illness among student-athletes. There is a need for research into the incidence and etiology of mental illness within elite level sports, both college and professional (Reardon & Factor, 2010; Hughes & Leavey, 2012). The study sought to educate coaches and students about factors that may impact mental health, and encourage athletic departments, athletic trainers, and counselors to be aware of how they can positively sway student-athletes' mental health pursuits as opposed to being reluctant to seek out or implement the services of professionals that could be of help (Gee, 2010). The literature review in Chapter Two emphasizes the opportunity to add to the limited research and literature on the importance of such a relationship.

Theoretical Framework

The theoretical framework used in this study was the biopsychosocial model (BPS) of mental health established by George Engel (Borrell-Corrio et al., 2004; Myers et al., 2005), and social support theory advanced by numerous researchers (Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001; Rosenfeld et al.1989; Yang, et al., 2010). This framework utilized the theories to display the interaction between biological, psychological, and social factors that play a part in the human experience, specifically in relation to mental health. The biopsychosocial model, developed by George Engel (1977), sought a holistic approach to mental health and focused on the biological, psychological, and social factors to create a systemic look at mental health (Borrell-Corrio et al., 2004; Myers et al., 2005). Researchers such as Robbins and Rosenfeld (2001) and Rosenfeld, et al. (1989) illustrated the importance of social support theory by focusing on the significance of the coach-athlete relationship as well as the influence coaches have on their college athletes. The researcher utilized concepts within social support theory to illustrate the importance of the role relationship and communication between the coach and the athlete play as well as how this relationship contributes to the mental health of the student-athlete.

Research Questions

The following questions were explored to investigate whether there is any correlation between student-athletes' perception of coaching leadership behaviors and symptoms associated with mental disorders such as depression, anxiety, suicidality, and substance abuse disorders in student-athletes:

RQ1: Is there any relation between student-athletes' perceptions of coaching leadership behavior and changes associated with mental health disorders including depression, suicidality, anxiety, or substance abuse disorders?

Research Hypothesis 1: Student-athletes' perceptions of coaching leadership behavior do have a positive relational relationship to changes such as an exacerbation or alleviation of mental health symptoms associated with anxiety, depression, suicide and substance abuse in the student-athlete population.

RQ2: Are there gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse disorders?

Research Hypothesis 2: There are differences among gender regarding student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse.

Research Design

The researcher utilized a quantitative, cross-sectional, non-experimental design with survey methodology (Creswell, 2009; Johnson & Christenson, 2008; Spector, 1981) to generalize the findings of any association between student-athletes' perception of coaching leadership behaviors and mental health symptoms in student-athlete.

Sample

The sample population consisted of student-athletes from a non-football Division I institution in the Atlantic Sun Conference. The participants selected met the criteria of being a full-time college student, on an athletic roster, and were actively enrolled at the non-football Division I university. Each participant was between the ages of 18 and 24 and had a continuous relationship with their coaches for a minimum of at least three months to be included in the

targeted population in this research study. The sample participants were identified from men's and women's sports teams including men's and women's basketball, golf, track and field, cross country, tennis, and soccer. Baseball, softball, volleyball, beach volleyball, and swimming teams were also represented. Participants were asked to take part in the study during the in- and off-seasons of their sport. Student-athletes who were in the in-season of their sport were actively engaging in their sport during the Spring 2016 semester. Some student-athletes who participated in the study were in their off-season due to having already participated in Fall 2015 sports, however due to the relatively short period between their end of season and the anticipated administration of this study, their participation was still very relevant. Their perception of the influence of their coach still had some lingering positive or negative effects. There was one specific question on the survey which determined whether a student-athlete was actively participating in-season or was currently in the off-season.

Research Instruments

The instruments used in the study were Chelladurai and Saleh's (1980) Leadership Scale for Sports, and the Symptoms Assessment Measure. The LSS has 40 Likert-type questions which are divided into five subscales of coaching leadership behavior: Two subscales measure decision making-type behaviors: autocratic and democratic student-athletes' perception of coaching leadership behaviors; two subscales measure motivational characteristics of coaching: leadership positive feedback and social support behaviors; one subscale measures the instructional behavior of the coach with the training and instruction coaching leadership behavior (Amorose & Horn, 2000). The LSS also measures the athletes' perception or preference of coaching leadership behaviors. The items on the Symptoms Assessment Measure instrument were created by the researcher, and assess four psychiatric domains or subscales, including depression, anxiety, suicidal ideations, and substance abuse issues. Specific attention was given

to the items and domains that are representative of the symptoms of the mental health disorders in this study.

Data Analysis

An exploratory factor analysis was conducted as well as a linear regression analysis to seek the association between the two sets of variables being studied. The data was analyzed using SPSS version 22.0 to obtain all descriptive data. The analysis identified the minimum and maximum values of the items, mean, standard deviation, and variance, on the instruments.

Delimitations

The research study focused on several components: 1) the student-athletes' symptoms associated with mental health disorders, student-athletes' perception of coaching leadership behaviors, and student-athletes' perceptions of their head coach's leadership behaviors on the athletes' mental health; 2) the participants were between the ages of 18 and 24; 3) the students were full-time college students and athletes who were on a sports team at a non-football NCAA Division I university in the Atlantic Sun Conference.

Limitations

The researcher sought to investigate an association between variables such as student-athletes' perceptions of coaching leadership behaviors which include training and instruction, autocratic, democratic, social support, and positive feedback, and symptoms associated with mental disorders such as depression, anxiety, suicidality, and substance abuse, and whether there are any changes, such as the exacerbation or alleviation of symptoms based on the coach-athlete relationship. This study cannot account for all confounding or extraneous variables that may impact the student-athlete's mental health risks such as genetics or a predisposition to mental illness. In addition, the instruments used were strictly based on the student-athlete's perception and self-rating regarding mental health symptoms; therefore, there should not be any assumption

that any of the participants had the actual diagnosis of anxiety, depression, suicidality, or substance abuse disorders without the evaluation of a mental health professional. Another limitation was the ability to accurately gauge the intensity of changes in symptoms because the student-athletes were measuring their perceptions of the head coach's leadership behaviors over the course of a minimum of three-months. In addition, for the student-athletes in off-season, the coach's influence may not have been considered as impactful as when the student-athletes were in-season of practice and competition. An additional limitation was that the Symptoms Assessment Measure was not piloted to determine reliability and validity prior to its use in this study, however an exploratory analysis was conducted to determine those factors for the instrument.

Organization of the Study

This dissertation is organized into five chapters: introduction, literature review, methodology, results, and a summary with conclusions and recommendations. Chapter 1 provides a brief synopsis of the research and a background to the study, the problem statement, research questions, the significance of the study, the delimitations, and the limitations of the study. Chapter 2 focuses on the review of literature and the conceptual framework. Chapter 3 represents the methodology section. This chapter incorporates a detailed description of the research design, selection of participants, instruments used, data collection, and data analysis of the research study. Chapter 4 discusses the results of the data collected and explores the validity and reliability of the data collected, while interpreting the relationships between the independent variable and the dependent variable. Chapter 5 is the discussion section that includes a summary of the findings and research, limitations, implications of the study, and recommendations, and conclusion.

Definition of Terms

Anxiety disorder. The main symptoms of anxiety disorder are extreme worry, fear or dread, difficulty sleeping, increased or decreased appetite when anxious, and feelings fluctuating from a general uneasiness to complete immobilization (APA, 2013; NAMI, 2015; NIMH, 2015). Physical symptoms can be exhibited which include pounding heart, sweating, shaking or trembling, diminished concentration, impairment in daily functioning, feeling out of control, and fear that an individual is "going crazy."

Autocratic leadership behavior. The autocratic leadership behavior of a coach is characterized by minimal involvement with the student-athlete in the decision-making process; all decisions are made by the coach independent of the athlete. The coach typically uses commands and punishments, and prescribes a plan and methods for all activities (Beam, Serwatka, & Wilson, 2004; Chelladurai & Saleh, 1980).

Biopsychosocial model. The biopsychosocial model is a guide used by professionals in the healthcare field to understand a patient's experience and identify the contributing factors in a diagnosis, health outcome, and human care (Borrell-Carrio et al., 2004). The biopsychosocial model has three components: the biological, psychological, and social factors that interact to understand health, illness and treatment.

College students. College students are defined by this study as those who are full-time, degree-seeking students enrolled at a four-year college or university, specifically, a non-football NCAA Division I university.

Coaches. Coaches are individuals who teach and train members of a sports team and make decisions about how the team plays during games (Merriam-Webster, 2015).

Democratic leadership behavior. Democratic coaching leadership behavior allows the athlete's input and decision making to be a part of the coach–athlete relationship. Coaches work collaboratively with athletes to get results (Chelladurai & Saleh, 1980).

Depression/depressive disorder. Depression is a mental health disorder that includes symptoms such as severe sadness, crying episodes, feelings of emptiness, hopelessness, helplessness, and worthlessness, increased irritability, anger and lack of motivation, eating and sleeping issues (reflected in an increase or decrease), a decrease in energy and activity levels, with feelings of fatigue or tiredness, and suicidal thoughts that occur most of the day, nearly every day, for at least two weeks, (APA, 2013; NAMI, 2015; NIMH, 2015).

Leadership Scale for Sport. The Leadership Scale for Sports is an instrument used to measure student-athletes' perception of the coach's leadership behavior or behavior (Chelladurai & Saleh, 1980). The instrument has 40 Likert scale items and is divided into five subscales of coaching leadership behavior: autocratic, democratic, positive feedback, training and instruction, social support behaviors.

Mental illness. Mental illness is defined by changes that occur in mood, thinking, and behavior that cause significant distress and impair an individual's daily functioning (CDC, 2014). The impairment in functioning generally affects school, work and home life. (NAMI, 2015).

Positive feedback leadership behavior. The positive feedback leadership behavior focuses on the coach's tendency to offer positive feedback about the athlete's performance while simultaneously motivating the athlete by looking at the athlete's positive attributes (Beam et al., 2004; Chelladurai & Saleh, 1980).

Social support leadership behavior. Social supportive leadership behavior typically does not include the use of pressure and demands with student-athletes (Chelladurai and Saleh, 1980). This leadership behavior focuses primarily on the relationship between the athlete and the coach. The coach is able to give clear instructions and the rationale for tasks and the college student-athlete's point of view is taken into consideration. There is a promotion of the athlete's freedom to participate in the decision-making process while working within the guidelines of the sport (Chelladurai and Saleh, 1980).

Social support theory. Social support theory involves the positive impact and communications that exist between participants. It involves the use of positive regard, empathy, respect, and confidence (Ludvigson, 2013; Rosenfeld et al., 1989).

Student-athlete. For the purpose of this study, student-athletes are defined as full-time college students enrolled and actively participating in athletics at a non-football NCAA Division I university in the Athletic Sun Conference.

Substance use disorder/substance abuse. Substance use disorders were formerly classified as substance abuse disorders (APA, 2013); the two terms are used interchangeably throughout the study. Substance abuse involves the misuse of prescription drugs, illicit drugs, or alcohol despite the consequences of difficulty in daily functioning. The use includes the abuse of drugs such as caffeine, cannabis, hallucinogens, inhalants, opioids, and sedatives/hypnotics, stimulants like cocaine, tobacco, other substances and alcohol (APA, 2013).

Suicidal behavior. Suicidal behavior involves gestures to harm oneself, the act of attempting death by, or completion of death by, suicide (APA, 2013; Etzel, 2006).

Suicidality. Suicidality is also known as suicidal behavior, and encompasses symptoms such as having thoughts or ideations about harming oneself, or death by committing the act of suicide (APA, 2013; Etzel, 2006; NIMH, 2015).

Suicidal attempt. Suicidal attempt occurs when an individual uses life threatening methods to actively try to kill oneself (APA, 2013; NIMH, 2015).

Suicidal ideation. Individuals with suicidal ideations have strong thoughts about harming themselves. The thoughts are deliberate and there is planning of possible ways to commit suicide (APA, 2013; NIMH, 2015).

Suicide. Suicide is the act of intentionally trying to cause one's own death (APA, 2013; NIMH, 2015).

Symptoms Assessment Measure. The Symptoms Assessment Measure (SAM) is an instrument created by the researcher to identify symptoms associated with anxiety, depression, suicidality, and substance abuse. It is a measure with 18 items. The measure identifies symptoms associated with the disorders, student-athletes who are participating in the in-season or off-season of their sport, gender, and the student-athletes' perception regarding changes such as increase or decrease in mental health symptoms based on their coach's leadership behavior.

Training and instruction behaviors. The training and instruction behaviors exhibited by the coach focus on improving the performance of the student-athlete by planning, structuring, and directing all activities. The training and instruction behaviors coach also instructs and teaches skills, techniques, and tactics of the sport (Amorose & Horn, 2000; Chelladurai & Saleh, 1980).

Summary

This research study provided some awareness of the coach-athlete relationship and its importance (Stirling & Kerr, 2009); however, the primary focus was to determine the possible

connection between the student-athlete's perceptions of coaching leadership behaviors and the resulting impact on the mental health and stability of the student-athlete. Also addressed were the demands and struggles student-athletes face based on their role as a student and athlete (Cleary et al., 2011; Etzel, 2006; Watson, 2005; Watson & Kissinger, 2007). New knowledge and insight into the contributing factors of student mental health issues and concerns may guide institutions as they develop appropriate NCAA and institutional policies for sustaining positive student-athlete mental health. Understanding the impact of student-athletes' perceptions of coaching leadership behaviors on student-athlete mental health may assist institutions in their hiring practices as well as improve the psychosocial environment for the student-athlete. This way, the NCAA could encourage stakeholders in the sport environment, including coaches, medical staff, administrators and teammates to join in mitigating the risk factors of mental health issues through prevention, screening programs and interactions that support help seeking behaviors (NCAA, 2015).

Chapter 2: Literature Review

The literature review begins with a description of college students' and student-athletes' experience in college. Following this discussion, Engel's (1977) biopsychosocial model, and the social support theory (Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001; Rosenfeld et al.1989; Yang et al., 2010) are utilized as the theoretical frameworks for this study. The prevalence of mental health disorders in the United States in college students and student-athletes is discussed. The relevance of the coach-athlete relationship is explored. Student-athletes' perception of their head coach's leadership behaviors is investigated. The interplay between student-athletes' perceptions of coaching leadership behaviors and student-athlete mental health is then debated at length, providing the basis for the identified gaps in research regarding student-athletes and mental health. Chapter 2 concludes with a discussion of this gap and the need for further study of the relationship between student-athletes' perception of coaching leadership behaviors and student-athlete mental health.

To capture a comprehensive view of the current topic, an in-depth investigation of current and past literature was explored. The literature review involved scholarly articles from peer reviewed journals, research with physical publications, virtual libraries, and other sources, including governmental and national organization websites.

All database searches were conducted using the University of North Florida databases of scholarly articles and journals. Sources included were Wiley, EBSCOhost, Wilson/EBSCOhost, ProQuest, ERIC, SAGE, WorldCat, Science Direct, and SPORTDiscus. Online searches included online websites – Mendeley, googlescholar, google.com, nami.org, ncaa.org, espn.go.com, cdc.gov, thefreedictionary.com, hoopsmack.com, jstor.org, bleacherreport.com, cnn.com, chatsports.com, samhsa.gov; save.org, nimh.nih.gov, and whitehouse.gov. Keywords

searched were student-athlete, college student, college student-college life, student-athlete wellness, student-athlete well-being, mental health in college population, mental health in student-athletes, mental health, mental health disorders and coaching leadership behavior, mental health prevalence, autocratic coaching leadership behavior, democratic coaching leadership behavior, social support behavior, training and instruction leadership behavior, positive feedback coaching leadership behavior, and coach-athlete relationship.

What are the challenges college students, particularly student-athletes, encounter when they embark upon their college experience? What psychosocial factors impact the mental health and well-being of the college student, specifically, the student-athlete? What impact does the coach-athlete relationship and the head coach's leadership behavior have on student-athletes' mental health? The extensive literature review permitted an assimilation of current and previous knowledge in the field of mental health and perceptions of coaching leadership behavior. The researcher sought to utilize the vast amount of information collected and explored to create an increased understanding of the current literature while revealing gaps in the body of knowledge.

Today's College Student Population

College students in general. Vankim & Nelson (2013) explained that currently one third of young adults are in college. From a developmental perspective, these are 18 to 24 year-old young people who have left their adolescent years in preparation for learning the basics of adulthood (Mahmoud, Staten, Hall, & Lennie, 2012). Sigmund, Kvintová, Hřebíčková, Šafář, Sigmundová, (2014) proposed that during this time young people strive to learn how to deal with the positive and negative realities of life such as the excitement about the prospect of living on their own, making their own rules, and establishing their own boundaries in this new phase of their lives. However, the responsibilities that come with this transition into adulthood are vast,

as this is a time young adults will need to manage academic affairs, school expectations, and social aspects of adjusting to university life (Cleary et al., 2011). Mahmoud et al. (2012) indicated that the perception for some is that college is not much different than high school; however, the reality is despite college students' preparedness, college presents challenges that can cause tremendous anxiety.

The college years are typically filled with much transition related to students' psychosocial development (Hinkelman & Luzzo, 2007). College students must evolve emotionally, socially, and academically by working to develop competence, manage their emotions, move toward becoming independent, develop mature relationships, make decisions, and increase in integrity. These factors are attributed to Chickering's theory of student development. Emotionally, the college student is faced with having to begin the process of self-exploration and growth, and to formulate an identity which may include sexual orientation or group identification. College students are responsible for their own activities of daily living, getting up for classes without the prompting of an adult, taking the responsibility for personal healthcare such as making appointments or taking medications, feeding, and clothing (Cleary et al., 2011). The college student must learn to navigate the financial responsibilities of attending college and academic expectations (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). Socially, the college student must learn how to establish relationships and get along with roommates and peers as there is the loss of high school friends and social engagements. Creating new friendships, relationships, and groups becomes necessary and overwhelming (Cleary et al., 2011). The weight of these increasing responsibilities can sometimes be overpowering for the young adult.

College students must also make educational and career decisions (Cleary et al., 2011). Academic preparation is an important area that college students are faced with when they enter college. A significant amount of high school graduates work toward receiving a college degree; however, there are many who enter college without the preparation necessary to perform well in college (Venezia and Jaeger, 2013). For those who are academically prepared, college expectations are positive because they have worked hard to get the opportunity to attend college (Cleary et al., 2011). However, for those students who are not college ready, the transition can be even more difficult (Venezia and Jaeger, 2013). For example, a student-athlete who is a first-generation college student must adjust to college life and learn the role of being a college student (Collier & Morgan, 2008). These individuals may have barriers such as being from a lower socioeconomic status, poor academic preparedness, financial burdens (Chen & Carroll, 2005), and a lack of resources to help them adequately navigate all the requirements and demands of college life (Collier & Morgan, 2008).

Factors such as transitioning from adolescence to adulthood, academic pressures, performance demands, physical strain, lack of support, financial stress, vocational concerns, difficulty with peer relationships, and expectations from self and others are significant contributors to the poor health of college students (Etzel, 2006; Hurst, Baranik, & Daniel, 2013; Vankim & Nelson, 2013). Vankim & Nelson (2013) indicated that the transition to college is academically and socially stressful, as 60% of college students reported feelings of high or very high stress due to factors like examinations, difficulty with relationships, and living independently.

These numerous environmental and social stressors negatively affect the college student's mental health and cause psychological pain (Cleary et al., 2011; Dusslelier, Dunn, Wang,

Shelley, & Whalen, 2005; Etzel, 2006; Hinkelman & Luzzo, 2007; Hughes & Leavey, 2012; Mahmoud et al., 2012; Vankim & Nelson, 2013; Van Rensburg et al., 2010). Hurst et al. (2013) also recognized that due to the stressors that college students face, there are strains in the college students' health including behavioral, physical, and psychological well-being. More specifically, Rosenthal and Wilson (2008) suggested that minorities, students from lower socioeconomic status, and other underrepresented groups have higher levels of stress due to oppression and discrimination, and therefore experience more psychological distress in their college years. Consequently, Sigmund et al. (2014) reported that college students tend to have increased risk of mental health issues than their peers who do not attend college as mental health distress among college student is higher than their non-college attending counterparts.

Student-athletes. Student-athletes encounter the same developmental experiences as non-athletes, such as learning to become independent, finding a sense of purpose, identity conflict, coping with uncertainty, dealing with authority, isolation, clarifying values, and career-vocational concerns, fear of failure, and dreams of success, (Etzel, 2006). They experience the same academic, emotional, and personal goals as their non-athletic counterparts (Watson & Kissinger, 2007). However, they also struggle with additional demands, and carry the load of having dual roles as student and athlete (Etzel, 2006; Vankim & Nelson, 2013). According to Beauchemin (2014), there is growing concern that there are distinctive stressors that cause mental health issues in student-athletes. Student-athletes may feel isolation, stress, anxiety, and the need to manage academics, athletic, and social responsibilities (J. Parcover, Mettrick, Parcover, & Griffin-Smith, 2009). They struggle with time constraints related to practice, film review, physical demand, and travel schedules (Etzel, 2006). Neal et al. (2015) noted that stressors like overtraining, the pressure to win, and competition for scholarships can lead to a

disruption in mood and other symptoms associated with psychological concerns. The dual role places the student-athlete at risk for psychiatric disorders or may exacerbate pre-existing conditions (Van Rensburg et al., 2011). The student-athlete is particularly vulnerable when considering that these formative years are when most mental health disorders emerge within the general population (Beauchemin, 2014; Gill, 2008).

Student-athletes represent a population that can develop a wide array of stressful reactions linked to general and mental health (Etzel, 2006; Pinkerton, Hinz, & Barrow, 1989). Dealing with stressors such as academics, injury, performance, lack of family support, and absence of community makes mental health wellness that much more difficult and may put athletes at greater risk for experiencing physical and psychological health problems (Gill, 2008). A head coach's demands may negatively influence an already vulnerable self. The continuous pressures student-athletes are under to perform, and the frequency of loss and injury can contribute to the development of depression and anxiety disorders (Kamm, 2008). Due to the nature of the different challenges that student-athletes face, there are justified concerns about the student-athletes' well-being.

Many consider student-athletes the "heart and soul" of their institution (Van Rensburg et al., 2011). In fact, athletes advance the university's bottom line by impacting areas such as the school's culture, institutional loyalty, and unity of the students and alumni which in turn helps to raise significant revenue, prestige, and power to the institution's reputation. In turn, the higher visibility enhances student applications, enrollment, fundraising, and sponsorship (Corrie & Palmer, 2014; Jowett & Ntsoumanis, 2004; Matheson, O'Connor, & Herberger, 2012; Moen & Federici, 2013). Therefore, it becomes compulsory upon the universities who profit from the

benefits of student participation in sports to take seriously student-athlete' physical and mental well-being.

Theoretical Framework

To fully understand the mental health needs of student-athletes, it is important to explore the theoretical foundation from which it was derived. The human experience is a complex interaction of biological factors, psychological influences, and social experiences (Borrell-Corrio et al., 2004). Engel's (1977) biopsychosocial model (BPS) describes the human experience from a holistic point of view, focusing on individual interrelation and the interaction between biology, psychology, environment, and illness (Myers et.al., 2005).

Additionally, this study incorporates social support theory to explore the impact that relationships have on the human experience. Social support theory embraces multiple factors including communication, types of support that occur in a relationship, and the stressors that influence an individual's life (Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001; Rosenfeld et al., 1989). The work of researchers such as Robbins and Rosenfeld (2001), Rosenfeld et al. (1989) and others, demonstrate the importance of social support theory. Its relevance to the relationship between student-athletes and their coaches makes this theory a foundational piece of this study. These two theories will be utilized to explore the impact that coaches have on their student-athletes' psychological well-being. The interconnectedness of the theoretical base will highlight the importance of studying the mental health of student-athletes as influenced by student-athletes' perception of coaching leadership behaviors.

Engel's Biopsychosocial Model (BPS). It is important to recognize that historically, physicians, researchers, and other mental health professionals utilized the medical model to assess and treat patients, looking at mental illness only from a biomedical perspective (Engel,

1977; Meyer, 2008). Based on the biomedical viewpoint, the focus was the need for robust scientific groundwork based on the biological origin of a disorder, disease, or illness, and the cure. However, although George Engel believed the biomedical model of treatment was important, he criticized the fact that it overlooked the experiences of the individual (Borrell-Corrio et al., 2004). Because of this limited perspective and reductionist viewpoint, Engel (1977), a psychiatrist, developed the biopsychosocial model (BPS) as a response to the biomedical model (Skytnner, 2005). The BPS model is a wide-ranging approach to mental health that was developed as a response to the biomedical model. BPS was an attempt to generate a more holistic approach to mental health and well-being by illustrating the necessity of the human subjective experience, both psychological and social, in addition to physical health (Borrell-Carrio et al., 2004). Meyer (2008) and Pilgrim (2015) considered it a legitimate model that offers a comprehensive view of mental health that has a substantial role in the functioning and development of individuals who struggle with mental illness. Additionally, BPS offers a perspective in regards to patient care of the patient/client relationship that provides more control by the patient and more participation in the clinical process and treatment (Meyer, 2008).

The biopsychosocial model is an understanding of how distress, disease, and illness are affected by multiple layers of organization (Borrell-Carrio et al., 2004). Engel (1977) ascribed to systems theory, stating that the development of mental illness occurs as a part of a system within the context of biological, social, and psychological functioning (Meyer, 2008; Skyttner, 2005). Engel believed that all parts are interconnected and all play a significant part in human functioning in the context of disease or illness (Pilgrim, 2015). According to Meyer (2008), biology influences and supports psychology and social information, psychology impacts and supports biological and social information, and finally, social information guides biological and

psychological information. From a biological perspective, mental health, and the biopsychosocial model, the APA (2013) indicated that factors like genetic vulnerability should be considered when determining the presence of a mental illness, as first degree relatives are more likely to develop a mental health disorder if they are predisposed to a particular disorder. Factors like feelings of depression due to transition to college, transition from adolescence to young adulthood, and lack of coping skills to deal with stress illustrated the psychological aspect of the BPS theory (Vankim & Nelson, 2013). Finally, within the context of the social component of BPS, Engel believed that environmental factors and relationships with spouses, peers, family members, including our functioning within our family unit, work setting, and communities, and in the case of this study, coaches, are factors that influence an individual's well-being (Meyer, 2008; Pilgrim, 2015).

Per Pilgrim (2015), the biopsychosocial model (BPS) has several limitations. First, it was never fully developed into a theory. Second, symptoms associated with mental health functional psychiatric diagnoses are based on signs, leading to the argument that mental health diagnoses are clinical judgments with no autonomous forms of measure or validation. Pilgrim (2015) recognized that should the BPS not undergo some criticisms, there is the risk of generating a naïve approach to human need and doubtful form of expert knowledge.

Although biology plays a significant role in mental illness in general, for the purposes of this study, the researcher will elaborate on the psychological and social aspects of mental health disorders in student-athletes (Engel, 1977; Meyer, 2008; Pilgrim, 2015). There are a growing number of student-athletes who are in jeopardy of experiencing extreme adjustment issues resulting in mental health issues, emotional concerns, and other psychological suffering (Locke et al., 2012; Watson & Kissinger, 2007). Social issues such as a lack of social support, cultural

traditions, and socioeconomic status and education are all crucial components of the social aspect of the model. This research study will focus on the perceived social impact of coaching leadership behaviors on student-athletes and attempt to gain new knowledge regarding how vital a head coach's influence is on the mental health of the student-athlete.

Social Support Theory. Social support theory is the culmination of multiple studies conducted by researchers who validated the importance and impact of social support in the life of the individual (Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001; Rosenfeld et al., 1989). According to Feeney & Collins (2015), close and caring relationships are undeniably linked with improved health and well-being. Other researchers, such as Deci and Ryan (2000), indicated that there has been a significant increase in the scientific study of well-being and positive aspects of mental health due to the positive correlations between the two.

According to Rosenfeld et al. (1989), social support theory involves communication and interactions between a provider and a recipient who seek to improve the well-being of the recipient. Yang et al. (2010) acknowledged that an individual's perceived social support is determined by his or her ability to rely on many quality individuals during difficult times. Feeney and Collins (2015) described how social support is hypothesized as an interactive process that functions to promote thriving in experiences of adversity or an opportunity for growth when there is no adversity. According to Rosenfeld et al. (1989), social support seeks to create a network of personal relationships that satisfies an individual's need for sharing their feelings, gaining encouragement, and improving their own communication skills.

Social support theory is considered a theory with many features (Robbins & Rosenfeld, 2001). It stresses clear, effective communication to reduce ambiguity, teaches the recipient how

to utilize appropriate skills to reduce stress in tense situations, and shows the individual that resources are available when needed, all while initiating a sense of personal control.

Robbins and Rosenfeld (2001) promoted eight types of support that occur in relationships: a) listening support, b) emotional support, c) emotional challenge, d) reality confirmation support, e) task appreciation support, f) task challenge support, g) tangible assistance, and h) personal assistance support. These eight types of support are easily translated to the coach/athlete relationship. When the coach imparts listening support, it is perceived by the recipient as nonjudgmental and helps to improve trust. Emotional support from the head coach provides caring and comfort to the athlete. Should the head coach decide to utilize emotional challenge with his or athlete, he or she seeks to help the athlete gain some awareness about the athlete's attitude, values, and feelings. The athlete typically receives reality confirmation support from his peers who help the athlete to confirm his or her perspective of a given situation. Individuals who provide task appreciation support give the recipient credit by acknowledging and appreciating the recipient's efforts. The head coach who offers task challenge support often seeks to test an athlete's way of thinking to provide motivation and increased participation in an activity. Sometimes the need for tangible assistance is required. In this case, an individual will help to provide things like financial assistance. Finally, the initiation of personal assistance by a coach is sometimes needed to help provide support services or help (Robbins & Rosenfeld, 2001). In the case of the student-athlete who is having difficulty transitioning or is experiencing symptoms associated with mental illness, this type of support can be paramount.

Stress is a significant part of a student-athlete's life (Rosenfeld et al., 1989). Student-athletes encounter not only the stresses of being a student-athlete but also the gravities of being a college student (Watson & Kissinger, 2007). For student-athletes who experience symptoms like

irritability, fear and anxiety, having the support they need is vital (Robbins & Rosenfeld, 2001; Rosenfeld et al., 1989). This means seeking the support of a coach, other resources, or services as the student-athlete population are individuals who typically do not seek help (J. Parcover et al., 2009).

There is a relationship between social support and the overall well-being of an athlete (Rosenfeld et al., 1989). Grove, Fish, and Eklund (2004) stated that social support can be a safeguard against negative events that may occur in the athlete's life. In fact, high levels of social support are also related to lower perceptions of stress, less exposure to stress, and a decrease in depressive symptoms (Uchino, Bowen, Carlisle, & Birmingham, 2012). In addition, an increasing number of researchers (Albrecht & Adelman, 1984; Yang et al., 2010) have acknowledged social support as an important factor in helping athletes recover from physical illness and injury as well as providing a buffer for negative health outcomes.

Rosenfeld et al. (1989) contended that athletes could use their coaches, athletic trainers, sport psychologists, and teammates to help them identify and cope with their life stressors. The head coach is an important factor in developing successful athletes (Jowett & Cockerill, 2003; Moen and Federici, 2003). The head coach also has strong influence on their athletes (Surujlal & Dhurup, 2012). A head coach is the one person who has the power and authority to control much of the psychological and social aspects of the student-athlete while the student-athlete is at a university playing collegiate sports (Gearity & Murray, 2011; Hodge & Lonsdale, 2011). Social support that is provided by coaches, teammates, friends, and parents, and those who provide the athlete with a support network, helps to alleviate environmental and social stressors that influence the athlete (Rosenfeld et al., 1989).

Within their study, Rosenfeld et al. (1989) determined that future research was necessary to determine whether social support fulfills a cushioning or direct effect on the emotional and mental states of athletes. It is with this commission that the researcher sought to identify the relation between student-athletes' perception of their head coach's leadership behavior and any self-reported changes such as an exacerbation or alleviation of symptomology affecting the student-athletes' mental health and well-being. This added knowledge bolstered the literature, giving coaches, teammates, friends, and parents the training to obtain and maximize the effectiveness of the support they should provide.

The proposed study explored social and environmental factors such as psychological and social stressors, including the relationship between the head coach and his or her student-athlete, the type of environment created by the student-athletes' perception of the coaching leadership behaviors employed by their head coach, and the interaction these behaviors have on the student-athletes' mental health. Parcover et al. (2009) suggested that student-athletes operate as a system that is like a family. They are influenced by the hierarchical organization within the athletic department and the university at large. Specific communication patterns exist between coaches, teammates, professors, athletic trainers, families, friends, and peers. Student-athletes must navigate the collegiate athletic system to develop into individuals who can function, both personally and athletically, at a high level.

The biopsychosocial model and social support theory were utilized as the theoretical foundation of this research study. The theories were used to illustrate the importance of multiple factors that influence mental health and well-being. It was with this foundation that the researcher also sought to determine the influence and impact of student-athletes' perception of

their head coach's leadership behaviors and those behaviors' impact on the student-athlete population.

Mental Health Disorders

Prevalence in the United States. Mental health disorders affect a person's mood, thinking, feeling, and socialization with others, and cause significant impairment in daily functioning (NAMI, 2015). Americans exhibit symptoms associated with mental health disorders that range from mild to severe (APA, 2013). According to the Substance Abuse and Mental Health Services Administration [SAMHSA] (2014), about one in five adults age 18 and over suffer from a mental health disorder. This translates to approximately 43.8 million adults who are afflicted with the symptoms associated with mental illness (SAMHSA, 2014; NAMI, 2015). About 50% of those with a mental health disorder first experience symptoms by age 14; by age 24, 75% of those affected by a mental illness will have experienced onset of their disorder (NAMI, 2015). Additionally, 22.4 million adults age 18 and over are engaged in substance abuse, a condition that may be accelerated by the presence of a mental health disorder (SAMSHA, 2014). Some prevalent disorders are anxiety, depression, suicidal behavior, and substance abuse (NAMI, 2015). All these disorders operate on a continuum and can range from general to specific and from mild to severe (APA, 2013).

Anxiety disorder is considered the most common mental health disorder in America; nearly 40 million (18-20%) members of the general population suffer from anxiety at least one time during their lives (NAMI, 2015; NIMH, 2015). Some of the symptoms of anxiety include tremors, nervousness, sweating, excessive worry, increased heart rate, and fatigue (APA, 2013). About 8% of children suffer from anxiety that affects their daily functioning, and most people have their first experience with anxiety symptoms by the time they are 21 (NAMI, 2015).

Women are 60% more likely to have anxiety than men.

Depression is also considered to be a predominant mental health disorder in the United States (Buchanan, 2012). Depression impacts about 6.7% of the adult population (NAMI, 2015). Like most disorders, types of depression can range from mild to severe; there is no specific trigger for the onset of symptoms (APA, 2013). Many consider depression to be biological or genetic in nature (APA, 2013; Thompson & Sherman, 2007); however, social or environmental factors can also influence feelings of depression. The symptoms associated with depressive disorder include feelings of sadness, frequent crying, feelings of emptiness, hopelessness and helplessness (APA, 2013). The individual can also have very low self-worth, increased irritability, anger, be lethargic, lack motivation, show increases or decreases in eating and sleeping, or exhibit suicidal ideations, gestures or suicidal attempts as a result of depression (APA, 2013). When these symptoms are present there is significant impairment in an individual's level of functioning.

Suicidal behavior is defined by an individual's wish and willingness to die by committing a gesture or attempt to kill oneself (Hill & Pettit, 2014). To engage in this severe behavior, one feels hopeless, feels like he or she does not belong, and perceives to have limited to no support. Suicide has been increasingly visible in our society. According to the Suicide Awareness Voices of Education [SAVE] (2015), suicide claims the lives of close to 30,000 American lives every year. The APA (2013) estimated that 20 to 30% of people who have attempted suicide will attempt suicide again. Typically, individuals with mood disorders such as depression and substance abuse are at increased risk for engaging in suicide behavior (Cleary et al., 2011; Page et al., 2014). Taub and Thompson (2013) supported this claim, noting that 90 to 95% of people who die due to suicide also have another mental health disorder.

Substance use disorders have become an epidemic touching all ages in our culture, especially those of young adults (SAMSHA, 2014). Alcohol, though legal, is the most abused substance of possible substances. More than 134 million people age 18 and over are current users of alcohol. Per SAMHSA (2014), more than 22 million people age 18 and over used illegal drugs in 2013 alone. Marijuana is the most widely used illicit drug with 19.8 million users age 12 and over. Prescription medications are now being abused at high levels as well (Thompson & Sherman, 2007). Between 2002 and 2011 there was an uptick in the nonmedical utilization of prescription drugs to create an altered state (SAMSHA, 2014).

Mental health issues affect millions of people; however, this research study focused on the prevalence of disorders such as anxiety, depression, suicidal behavior, and substance abuse in the college student population and specifically, the student-athlete population. In addition, the researcher attempted to identify the significance of psychosocial factors that could trigger, exacerbate or alleviate a mental disorder.

Prevalence among college students. Researchers have found that the prevalence of poor mental health on college campuses is high (Blanco et al., 2008; Hunt & Eisenberg, 2010; Kenney & LaBrie, 2013). Mental health issues are on the rise (Hunt & Eisenberg, 2010). Blanco et al. (2008) indicated that almost 50% of college students admitted having a psychiatric disorder within the past year. Information from the 2006 National Survey of College Centers revealed that 92% of college counseling directors believed that serious psychological issues among students has increased (Blanco et al., 2008). Cleary et al. (2011) suggested that the number of college students with mental illness has grown to around 39% for individuals between the ages of 15 and 21, which are normally considered the college years. Mowbray, Bybee, Oyserman, MacFarlane, and Bowersox (2006) indicated that when averaging the statistics from

several research studies, the number of college students with serious diagnosable mental illness ranged from 12 to 18%. Kenney and Labrie (2013) pointed out that about 11 to 12% of college students could meet the DSM –IV criteria for mental illness. Cleary et al. (2011) posited that students with severe mental illness grew to about 39% for individuals 15-21 between 2010 and 2011. Another nationwide study of more than 2.6 million college students, and 302 institutions determined that 89.4% of the respondents in the study thought that severe psychological issues had increased within the student population (Cleary et al., 2011). For example, of 103 suicides of college students reported in 2008, 80% were of students who were diagnosable with depression.

Anxiety. Mahmoud et al. (2012) reported that around 40 million American adults suffer from anxiety and 75% of them experience their first episode by age 22. According to Grasgreen (2012), a 2011 investigation by NAMI of college students nationwide, revealed that 11% of those studied suffered from an anxiety disorder. Mahmoud et al. (2012) found even higher statistics noting that 27% of college students studied were anxious. Among the social and environmental stressors that may contribute to anxiety in this population are academics, time management issues, and adjustment issues (Cleary et al., 2011).

Depression. Depression can occur due to a situational circumstance that is traumatic in someone's life such as the death of a loved one, a break-up of a relationship, a major illness, or during a time of transition such as the start of college. As a result of a perceived loss of control over the situation, the individual may become depressed (APA, 2013). Depression statistics in college students over the last few years are jarring (Hunt & Eisenberg, 2010). In fact, the American College Health Association [ACHA] (2007), acknowledged that the number of college students diagnosed with depression is on the rise. NAMI (2015) indicated that 1 out of 3

students reported having depression. In a study of more than 1,400 college students conducted at different colleges, 53% reported symptoms of depression since entering college (Furr, Westefeld, McConnell, & Jenkins, 2001). In the ACHA report, one in two undergraduate students felt so depressed within the past 12 months that they couldn't function. Furthermore, in that same study, nearly 1% of college students had seriously contemplated suicide within the past 12 months (ACHA, 2007). Buchanan (2012) conducted a study on depression of approximately 80,000 students. Of those included, 14% had been diagnosed with depression at some point in their lifetime with 32% reporting a diagnosis within the previous year. Nearly 25% of sufferers were undergoing therapy, while 37% reported taking medication for depression. Additionally, the researcher indicated that 43% felt so depressed it was difficult to function, and 61% felt hopeless. In addition, Grasgreen (2012) reported findings that depression rates were high as 27% in a sample population of college students nationwide.

Suicidal behavior. Suicide is the tenth leading cause of death in the United States, the third leading cause of death among 15 to 24 years (CDC, 2014), and the second leading cause of death among college students (Cleary et al., 2011). Approximately three suicides happen per day in college with 7-10% of the overall students making an attempt at, or thinking about, committing suicide in a year (Taub and Thompson, 2013). Buchanan (2012) substantiated this claim in a study of over 80,000 college students, finding that at least 7,000 students contemplated suicide in the previous year, and an additional 1,000 students made an actual suicide attempt.

Substance abuse. Lo, Monge, Howell, and Chen (2013) addressed the fact that the environment in U.S colleges and universities breeds circumstances for young adults to use substances as a rite of passage toward adulthood. College students are not only engaging in alcohol use but also in the use of prescription drugs, marijuana, cocaine, and stimulants, among

other illicit drugs. Catalano, White, Fleming, and Haggerty (2011) indicated that there is significant concern about the combination abuse of medications and alcohol which creates the increased potential for addiction and overdose which can lead to death.

Prevalence among student-athletes. The student-athlete is part of a population whose experience at the university level tends to create difficulties that are more pronounced than their non-athlete peers (Van Rensburg et al., 2011; Locke et al., 2012). The demands of being both a student and an athlete have the potential to create significant stressors that may trigger or exacerbate symptoms associated with mental health disorders (Etzel, 2006; Kamm, 2008; Watson & Kissinger, 2007).

Student-athletes, like their non-athlete counterparts, struggle with the same transitional period from adolescence to young adulthood which can be a difficult process. During the period of adolescence into adulthood, myriad changes and transitions can lead to difficulties in adapting to the college environment, and maintaining healthy behaviors and psychological health (VanKim & Nelson, 2013). Cleary et al. (2011) discussed transition as a time when college students will need to cope with academic circumstances and expectations as well as social complexities of adjusting to university life. Marcia & Josselson (2013) sought to expand on Erikson's stages of development by indicating that seeking one's identity begins in adolescence, the period between childhood and adulthood. They discussed the conflict that young adults have in creating their own identity which may lead to depression, anxiety, and other disorders. The young college student seeks to break from his or her parents' expectations to choose his or her own life path. Next, the individual then moves toward intimacy vs. isolation stage which typically begins in the college years at around age 19. Erikson believed that this stage is the most critical to forming strong, intimate, committed relationships and partnerships with others

(Pittman, Keiley, Kerpelman, & Vaughn, 2011), while failure to do so leads to loneliness and isolation.

Student-athletes have dual roles as students and athletes (Van Rensburg et al., 2011). Increasing demands for time and a high level of commitment to both sports and academics can combine to create stress. This increase in stress levels places the student-athlete at risk for new psychiatric disorders, or may exacerbate pre-existing conditions. According to NAMI (2015), the typical age of onset or exacerbation of mental illness is 18-24 years. Kessler, Berglund, Demler, Jin, and Walters (2005) noted that most lifetime mental health disorders occur by age 24. Complications associated with anxiety, depression, substance abuse, and suicidality, among other mental illnesses, place the student-athlete at a greater risk when combined with the stresses associated with their dual roles (APA, 2013; Kessler et al., 2005; Van Rensburg et al., 2011). While Miller and Hoffman (2009) suggested that engaging in athletics improves mental and social well-being, and student-athletes may find their sport participation fulfilling, many will have issues with adjustment, emotional concerns, and psychological pain because of their participation and will suffer from serious mental illness (Cleary et al., 2011; Hunt & Eisenberg, 2010; Watson & Kissinger, 2007). Watson and Kissinger (2007) confirmed that 10% to 15% of student-athletes experience psychological issues that could merit professional counseling. Beauchemin (2014) stated that growing research shows distinctive stressors such as isolation, performance anxiety, and perceived pressures cause mental health issues in student-athletes. Due to the nature of these challenges faced by student-athletes, there are justified concerns about their well-being (Etzel, 2006; Thompson & Sherman, 2007; Van Rensburg et al., 2011).

In addition to academic and social demands inherent to college life, student-athletes experience pressures related to performance, concerns about injuries, separation from family

support during collegiate activities, and an absence of a sense of community within the college environment that make mental health wellness that much more difficult (Cleary et al., 2011; Gill, 2008; Lafreniere et al., 2011; Watson & Kissinger, 2007). The stressors student-athletes face are compounded by coaches' demands and coaching and community expectations (Kamm, 2008). Depression often results from experiences of loss and injury and concerns over continued ability to perform can lead to feelings of anxiety.

Student-athletes are sometimes considered the central driving force of the college institution (Van Rensburg et al., 2011). In fact, student-athletes are considered to advance universities' bottom line by impacting areas such as the university culture, institutional loyalty, and unity by students and alumni alike. They help to increase revenue and foster prestige for the institution's reputation, which in turn enhances student applications, enrollment, fundraising, and sponsorship. Therefore, it becomes incumbent upon the universities who profit from the benefits of student participation in sports to seriously consider both student-athletes' physical and mental well-being and develop programs that will enhance the athletes' overall well-being (Etzel, 2006; Watson & Kissinger, 2007).

A recent paradigm shift in the visibility and focus of mental illness in collegiate athletics has brought the issue to the forefront of discussion (DeCaro, 2013; Kalbrosky, 2012; Martin Wrenn, 2012; Medcalf, 2012; Noren, 2014; Siebert, 2012). Student-athletes may be at increased risk of developing symptoms associated with mental health and substance use disorders and are becoming increasingly noticeable (Baum, 2005; Beauchemin, 2014; Brown & Blanton, 2002; Dziedzicki et al., 2013; Gill, 2008; Martens, Dams-O'Connor, & Beck, 2006). The shift is turning away from the isolated treatment of physical injury, supplement abuse, and eating disorders toward a more holistic view of the student-athlete's health needs that includes a focus

on mental health (Etzel, 2006). Because of the severity of the challenges facing students and student-athletes, the NCAA created an entire handbook on ways that coaches can manage the mental health issues of student-athletes with symptoms associated with mental health disorders (Thompson & Sherman, 2007).

Student-athletes are typically perceived by the public to be an exceptionally healthy population who are not normally in need of psychological help; however, Etzel (2006) suggested that student-athletes represent a population that is at risk to experience physical and mental health issues. Neal et al. (2015) agreed that student-athletes are viewed as superhuman, not viewed as having psychological concerns, or are perceived to be unaffected by stress. Gill (2008) concurred, explaining that student-athletes are not generally considered a vulnerable population by those who work with or study such groups. In fact, some athletic staff including some head coaches may perceive that psychological struggles are a sign of weakness (E.A. Storch et al., 2005). Student-athletes themselves may also carry the perception that to be considered a "real" athlete they must not show signs of emotional or mental weakness (Pinkerton et al., 1989; E.A. Storch et al., 2005). Furthermore, athletic departments may not have the training in recognizing and understanding the signs of psychological suffering (E.A. Storch et al., 2005). Al-Naggar (2013) posited that the public attitude towards people with mental illness in the United States and other countries is negative, leading to a greater amount of stigma associated with mental health concerns. For these reasons, student-athletes may not utilize counseling services or may sacrifice help-seeking altogether (E.A. Storch et al., 2005).

Due to this perception of a low prevalence of mental illness in the student-athlete population, there is a shortage of research into this phenomenon (Kamm, 2008; Reardon & Factor, 2010). The current focus on student-athletes' mental health has encouraged sports

medicine professionals, student affairs administrators, counselors, and athletic departments to focus on issues of depression/suicidality, anxiety, and substance abuse along with other common issues (Etzel, 2006; Watson & Kissinger, 2007). Despite the recent attention, more research needs to be devoted to sports psychiatry (Gill, 2008; Kamm, 2008; Reardon & Factor, 2010). Reinboth, Duda, and Ntoumanis (2004) proposed that more research would be informative to investigate the psychological impact of the coaching leadership environment. Understanding how coaching affects the quality of athletes' sport experience and subjective well-being can have increased benefits for student-athletes on and off the field.

Coach-Athlete Relationship and Coaching Role

The relationship between a head coach and his or her athlete is a special one that helps to initiate the overall growth of the student-athlete (Blanchard, Amiot, Perreault, Vallerand, & Provencher, 2009; Felton & Jowett, 2013; Horn, Bloom, Berglund, & Packard, 2011). The coach is also one of the most crucial individuals who is able to help the student-athlete develop his or her talents, capabilities, and experience (Jowett & Nezlek, 2012; Lafreniere et al., 2011; Mageau & Vallerand, 2003; Norman & French, 2013; Stirling & Kerr, 2009). The relationship is typically built on trust, respect, commitment, communication, understanding, cooperation, caring, and respect between the two parties (Lafreniere et al., 2011). If there is the sense of trust, respect, commitment, and communication between the coach and the student-athlete, there is the opportunity to assist the student-athlete to develop a healthy and successful relationship (Lafreniere et al., 2011; Trzaskoma-Bicsérdy, Bognár, Révész, & Géczi, 2007). However, if the relationship between the coach and athlete exhibits mistrust, dominance, and a lack of respect, then there will be a feeling of antagonism, exploitation, or even abuse (Blanchard et al., 2009; Lafreniere et.al, 2011).

Student-athletes prefer respect from their head coach and the ability to value their opinions, feelings, ideas, and decisions (Trzaskoma-Bicsérdy et al., 2007). Student-athletes also need to believe that the head coach is willing to teach, educate, and train them to be successful athletes and individuals. This belief eventually develops into trust, and results in the head coach that has genuine love and care for his/her athlete and vice versa.

Coaching leadership. Leadership is an important factor in the functioning of any sport organization or team. The success or failure of the team is based largely on the leadership behavior of the coach (Kent & Chelladurai, 2001; Sarpira, Khodayari, & Mohammadi, 2012; Surujlal & Dhurup, 2012). The leadership provided by the coach is instrumental in enhancing the ultimate performance of the group underneath him or her (Chelledurai & Saleh, 1980). Effective leaders motivate, help to increase performance levels; as a result, there is satisfaction for the student-athlete (Jowett & Nezlek, 2012; Mallett & Côté, 2006; Trzaskoma-Bicsérdy et al., 2007). Likewise, Moen and Federici (2013) asserted that coaches play an important role in developing successful athletes. The head coach who is considered a high-performance coach has a strong commitment to his or her team, engages in a stable coach-athlete relationship, and emphasize long term planning, decision making, and management skills (Mallet and Côté, 2006).

The head coach plays a major role in shaping the psychological, emotional, and physical health of the athlete (Jowett & Ntousmanis, 2004; Reinboth et al., 2004; Smoll & Smith, 1989). The types of behaviors or leadership behaviors that are exhibited by coaches can either help or hinder the psychosocial growth and development of student-athletes (Beam et al., 2004; Horn et al., 2011). Perfectionism typically demands the highest standards of performance and tends to have a negative influence on an individual, coach, or athlete (Corrie & Palmer, 2014). Though perfectionism can lead one to strive for excellence, a head coach's rigidity in his or her quest

toward perfectionism can lead to emotional distress in student-athletes triggering symptoms associated with anxiety disorders, anxiety, depression, and suicidality.

Horn et al. (2011) associated the student-athlete's psychological well-being to the coaching leadership behavior they prefer. If the student-athlete feels that he or she is well understood and that his or her feelings are considered, the athlete can have a strong attachment to his or her coach. Conversely, if the athlete feels intimidated by his or her coach, the athlete will feel angry and less friendly with the head coach leading to a lack of connectedness and miscommunication (Lafrenière et al., 2011). The head coach's expectation of his or her athlete's performance is a major factor in influencing the coach's attitude and treatment toward the athlete; however, it is the psychological characteristics that the all coaches should prioritize (Becker & Solomon, 2005).

Five dimensions of coaching leadership behavior. The role of the head coach consists of both technical and interpersonal components intended to increase the student-athlete's performance. The technical aspect of the coach deals with training athletes and developing game strategies, whereas the interpersonal role of the head coach includes supporting and motivating athletes while having an awareness of the athlete's personal strengths and limitations to produce the best athletic results (Fletcher & Roberts, 2013). Coaching leadership behaviors, according to Chelladurai and Saleh (1980), include training and instruction, democratic, autocratic, social support, and positive feedback behaviors of coaching.

Training and instruction. One of the major responsibilities of a coach is teaching the skills necessary for the athlete to be successful (Gearity, 2012). The training and instruction behavior of coaching leadership behavior focuses on improving the performance of the student-athlete (Chelladurai & Saleh, 1980). This type of head coach focuses on planning, structuring,

and directing all activities while playing a very active role in training and competition. He or she does spend time interrelating to the student-athletes; however, the time is spent motivating the student-athlete, teaching skills, techniques, and tactics of the sport (Beam et al., 2004; Gearity, 2012). The training and instruction type coach provides athletes with learning the necessary tools to use new skills or strategies to solve a problem on their own, encourages student-athletes to cultivate internalized performance standards, and assists them in learning to be self-aware (Reinboth et al., 2004).

Democratic. The democratic behavior of coaching tends to be more liberal than the other coaching leadership behaviors (Mageau & Vallerand, 2003). Democratic leadership coaching behavior allows the student-athlete to engage in the decision-making process and set their own goals, and is respectful of the student-athlete's rights (Beam et.al, 2004). Based on the increased level of mutual trust between the head coach and athlete, the head coach integrates the opinion and decisions of the student-athlete regarding training, quality, and quantity of practice, in order get desired results, and is likely to get approval from the team on important matters before moving forward with final decisions (Chelladurai and Saleh, 1980). Frequent communication is a primary factor in the coach–athlete relationship in knowing the athlete and his or her problems and issues. Athletes believe that the way they are talked to or treated has a crucial effect on their experiences (Trzaskoma-Bicsérdy et al., 2007).

Autocratic. The head coach who uses the autocratic behavior is likely to be controlling, demanding type individuals who limit student-athlete involvement in any of the decision-making process with regards to the team (Beam et al., 2004). The autocratic head coach keeps to himself and does not compromise (Chelledurai and Saleh, 1980). Even with the best of intentions, the autocratic head coach's tendency to be controlling can threaten the college student–athlete's

motivation by reducing the athlete's chance at being creative and taking initiative to make his situation or performance better (Goose & Winter, 2012).

The autocratic head coach is also coercive toward the student-athlete. They use strategies such as manipulation, obedience, guilt induction, and conditional regard to enforce an exact way of thinking and behaving by the student-athlete (Hodge & Lonsdale, 2011). The head coach's expectations and philosophy are that the athletes obey all instructions given without question (Chelledurai & Saleh, 1980; Goose & Winter, 2012).

Social support. The social support coaching leadership behavior reinforces a team approach to athletic performance (Beam et al., 2004; Chelladurai & Saleh, 1980). With this leadership behavior, the head coach nurtures the coach-athlete relationship by focusing on the needs of the athlete, specifying a clear rationale. The head coach provides the kind of support that is separate from the performance of the athlete as he or she also focuses on the personal needs and welfare of the student-athlete. The social supportive head coach helps student-athletes with their personal problems, help members of the group resolve issues, does personal favors for the athletes, expresses the affection they feel for their athletes, and encourages athletes to confide in them (Chelladurai & Saleh, 1980). The student-athletes feel as though they are loved, valued, and respected (Pierce, Sarason, & Sarason, 1992; Reinboth et al., 2004).

Social support coaching leadership behavior avoids using coercion, the use of pressure and demands, but the head coach seeks to incorporate the student-athlete's perspectives and opinions, encourages choice within rules and guidelines, and at the same time values the student-athlete's independence, creativity, and problem solving skills (Goose & Winter, 2012; Mageau & Vallerand, 2003). Mageau and Vallerand (2003) used the term, *autonomy supportive coaching*, noting that the head coach engages the student-athlete in the decision-making process and is

willing to acknowledge the student-athlete's feelings and input. This in turn helps the student-athlete trust his or her head coach and the head coach is able to acknowledge that athletes are individuals with needs and feelings that do not need constant outward control. Surprisingly, this type of leadership behavior is not the most popular, as Goose and Winter (2012) found. Although researchers support social supportive coaching leadership behavior and its benefits, the collegiate athletic culture continues to utilize coaching with more controlling coaching behaviors (Mageau & Vallerand, 2003).

Positive feedback. The positive feedback coaching leadership behavior focuses on the head coach who compliments his or her athletes and provides the necessary responses to increase the athlete's performance, motivation, and overall growth and psychological development (Beam et.al, 2004). The coach-athlete relationship needs to have frequent feedback and support (Trzaskoma-Bicsérdy et al., 2007). The positive feedback head coach operates in a non-controlling way which helps to increase the student-athletes' innate motivation. When the head coach engages in positive verbal feedback, it has an impact on the athlete. This type of head coach rewards the student-athletes for their performance and praises the athlete in front of others (Chelladurai & Saleh, 1980). The head coach who uses positive feedback leadership behavior develops and maintains the athlete's motivation and enhances the student-athlete's motivation to perform with praises and reinforcement of performances (Amorose & Horn, 2000; Goose & Winter, 2012).

What is known about coaching leadership behaviors is that they are considered a social environmental factor and are influential in the athlete's psychological needs and well-being (Blanchard et al., 2009; Felton & Jowett, 2013). The student-athletes' perception of the head coach's leadership behavior is crucial between the coach and student-athlete as the dynamics can

be rewarding or detrimental (Stirling & Kerr, 2009). The head coach is crucial to creating an environment that plays a significant role in the physical and psychological development of his or her athletes (Blanchard et al., 2009; Goose & Winter, 2012; Jowett & Ntsoumanis, 2004). Coaching behaviors such as training and instruction are vital to the development of sports skills (Gearity, 2012; Reinboth et al., 2004). The social supportive head coach can help identify and satisfy the personal needs of the student-athlete by helping the student with his or her personal problems (Beam et al., 2004). Conversely, student-athletes can experience decreased satisfaction regarding their own self-sufficiency when exposed to an autocratic/controlling leader (Felton & Jowett, 2013). The head coach needs to have high quality relationships with his or her athletes in order to promote increased well-being and reduce the chances of ill-being or illness.

What is not known is the degree to which the student-athlete's perception of the head coach's leadership behavior affects the student-athlete. Reardon and Factor (2010) explained that sports psychiatry is a relatively new field, while investigators such as Felton & Jowett (2013) agreed that associations between leadership behaviors like autocratic leadership and athlete needs have not been fully explored and warrant further investigation. This study was designed to provide evidence of the magnitude of a head coach's leadership behavior by determining if there are any changes such as the exacerbation or alleviation of symptoms associated with disorders such as anxiety, depression, suicide, or substance abuse within the student-athlete population.

Research Gap

Though some research exists on issues like depression in the college student population, there is a lack of research in other psychiatric disorders such as anxiety, suicidal behavior, or substance in athletes (Reardon & Factor, 2010; E.A. Storch et.al, 2005). According to Noren

(2014) there is no significant data available on how many student-athletes are dealing with mental health issues and how many student-athletes are utilizing mental health services. There is an overall gap in the literature related to the mental health of athletes and further study is needed in this area (Beauchemin, 2014; Donohue et al., 2013; Hughes & Leavey, 2012). Additional studies are needed to explore the impact of psychosocial factors related to the mental health of student-athletes, the success or failure of interventions, and outcomes of the intervention for athletes.

Summary

The prevalence of mental disorders in society is also visibly present in college students and the problem is not going away (Hinkelman & Luzzo, 2007; Hunt & Eisenberg, 2010; Salzer, 2012). College students, and student-athletes in particular, are exposed to a significant number of stressors and challenges during their college years that can trigger mental health issues. According to Cleary et al. (2011), college students are exposed to conditions that place them in jeopardy. Stressors they are faced with are living away from home, having minimal support from people they trust, being completely responsible for their own physical and mental health and wellbeing, have educational opportunities, and the chance to create lasting relationships. However, though all these factors are conducive to emotional and psychological growth, the amount of stress that is involved in a young adult's transition from adolescence to adulthood places these young people at risk of significant mental health issues (Usher, Jackson, & O'Brien, 2005).

A head coach's relationship with the student athlete, and the influence of his or her coaching behaviors are so vital to the student-athlete that he or she "should not only consider training and performing athletic skills but he should also pay attention to psychological processes

of an athlete and the entire team" (Sarpira et al., 2012, p. 298). It is with this premise that the subject of the impact of student-athletes' perception of Chelladurai and Saleh's (1980) coaching leadership behaviors and its connection to student-athletes who struggle with symptoms associated with anxiety, depression, suicidality, and or substance abuse was explored in this study.

Throughout this literature review, the use of Engel's (1977) biopsychosocial model and social support theory were used to introduce the premise that there is a psychosocial impact of coaching leadership behaviors on symptoms associated with student-athletes' mental health. The literature reviewed for this study also identified the psychological and environmental risks that college students, particularly student-athletes, face when transitioning into the stage of young adulthood and into college. Student-athletes believe the way they are talked to or treated often has a critical effect on how they view their own personal and sport experiences (Trzaskoma-Bicsérdy et al., 2007); therefore, their perception of their head coach's leadership behavior and how it relates to their mental health is worth exploring.

Chapter Three will illustrate the methods and procedures, the research design, the research instruments, methods used to collect and analyze the data, and the participants used in this study. Chapter Four will demonstrate the statistical analyses used in the study. Additionally, the research questions are investigated to determine if the student-athletes' perception of their head coach's leadership behavior has any influence on symptoms associated with anxiety, depression, suicidal behavior disorder, or substance use disorders, and changes such as the exacerbation or alleviation of those symptoms. Chapter Five will provide a discussion of the results with conclusions, implications, and recommendations regarding the impact that the student's perception of coaching leadership behavior has on symptoms associated

with anxiety, depression, suicidality, and substance abuse.

Chapter 3: Methodology

Chapter 3 describes the methodology used in this study. The methodology focused on the research design and procedures for directing the study. This research study explored whether there was any relation between coaching leadership behaviors and mental health symptoms in college student-athletes. An additional focus was to investigate if there was an exacerbation or alleviation of symptoms associated with disorders such as anxiety, depression, suicidality, and substance abuse in college student-athletes as a result of the coach's leadership behavior. The primary objective of this study was ultimately to identify any correlation and influence of coaching leadership behaviors on college student-athletes who exhibit or are at risk of developing symptoms associated with the mental health disorders described.

The Leadership Scale for Sports (Chelladurai & Saleh, 1980) and Symptoms Assessment Measure were used as the instruments to determine the relationship between symptoms associated with mental health disorders such as anxiety, depression, suicidal behavior, and substance abuse and perceived coaching leadership behaviors on the student-athletes' mental health. Through data collection, analysis, and examination of the results, the researcher sought to explore a statistical significance between coaching leadership behaviors and its relation to student-athletes' mental health and well-being.

With this research, the goal is to identify the problem so there can be solutions such as interventions and policies that can influence the choices a head coach makes when considering the impact his or her behavior may have of their student-athletes' mental health and well-being. In addition, coaches and other athletic personnel can learn how to identify symptoms associated with anxiety, depression, suicidal behavior, and substance abuse in the student-athlete population

and adjust their coaching leadership behavior when needed, thus benefiting everyone involved including the student, coach and university in general. Chapter Three will be comprised of the participants, research design, research questions, instruments and measurements, procedures, data analysis, and a conclusion.

Participants

The student-athletes from a non-football Division I university within the Atlantic Sun Conference participated in this research study. The participants selected met the criteria of being an active student, enrolled at the non-football Division I university selected, were between the ages of 18 and 24, active in their sport, and had been with their coaches a minimum of three months when they participated in the study. The participants were drawn from men's and women's sport teams. Men's teams included baseball, basketball, cross country, golf, soccer, tennis, and track and field. Women's teams included basketball, golf, cross country, soccer, beach volleyball, swimming, softball, track and field, and volleyball.

A total of 261 student-athletes received access to the survey. Thirty-three students accessed the survey, 28 answered all or some portion of both surveys and a total of 12 completed all portions of the LSS and the SAM measures. Twenty-seven student-athletes answered the additional questions including gender, age, time spent with their head coach, in- or off-season participants, and questions related to the exacerbation or alleviation of symptoms associated with anxiety, depression, suicidal behavior, or substance abuse. Eighty-five percent (23) were female and 15% (4) were male. Ninety-six percent (26) of the students were between the ages of 18 and 21 years old. One student-athlete identified as being between the ages of 22-24. Seventy-eight percent (21) of the student-athletes indicated that they were in their off-season, and 22% (6) indicated they were in-season. One percent was considered unknown.

Research Design

The research conducted was a non-experimental, descriptive, correlational design (Creswell, 2009; Hinkle, Wiersma, & Jurs, 2003; Johnson & Christenson, 2008; Spector, 1981). Quantitative analyses were chosen to generalize the findings of the relationship between coaching leadership behaviors and college student-athletes who self-report symptoms associated with mental health disorders such as anxiety, depression, suicidality, and substance abuse (Hinkle et al., 2003; Johnson & Christenson, 2008; Spector, 1981). As noted in the literature review, Horn et al. (2011) recognized that coaching leadership behaviors may be linked to athletes' psychological well-being. This notion was confirmed by Reinboth et al. (2004) who suggested that the style and interpersonal behavior of the coach can have an impact in shaping the psychological, emotional, and physical effects of the athlete.

The hypothesis for this study was that coaching leadership behavior does have a relationship with symptoms associated with mental health disorders such as anxiety, depression, suicidality and substance abuse in college student-athletes and that coaching leadership behaviors influence an exacerbation or alleviation of symptoms associated with the anxiety, depression, suicidal behavior and substance abuse.

Instrumentation

Leadership Scale for Sports (Appendix B)**.** One of the instruments used in this research study was the Leadership Scale for Sports (LSS) (Chelladurai and Saleh, 1980). For the purposes of this study, the researcher focused on the student-athletes' perception of their coach's leadership behaviors' to then determine the potential impact on their mental health. This instrument utilized 40 Likert-type items in the leadership measurement; the items were divided into 5 subscales of coaching leadership behavior. Two of the scales measured decision making

such as the autocratic and democratic coaching leadership behaviors, two subscales measured the motivational aspects of coaching leadership including positive feedback and social support behaviors, and one subscale measured the coach's instructional behavior with the training and instruction coaching leadership behavior (Amorose & Horn, 2000).

Directions. Directions for use of the LSS measurement were explained to the student-athletes even though the items are self-explanatory. The responses to the 40 leadership questions were made on a 5-point Likert scale (1=Never; 2= Seldom or 25% of the time; 3=Occasionally or 50% of the time; 4=Often or 75% of the time; and 5=Always (Chelladurai & Saleh, 1980). The participants were instructed to rate each item on a scale of 1 to 5, indicating their perception or level of agreement with the statements pertaining to their coach. Permission for the use of the LSS instrument was not needed. The instrument remained intact with no modifications made to the assessment. The LSS instrument included five leadership behaviors

Factor 1: Training and instruction. This subscale had 13 items and reflected the coach's role in improving the performance level of the athlete; that is, how training and instruction of the student-athletes is used to help them reach their maximum potential and to gain the necessary skills to accomplish the techniques and the tactics of sport.

Table 1

Leadership Scale for Sports: Training and Instruction

Leadership Behaviors	**Item**
Training and Instruction	• Sees to it that every athlete is working to his/her capacity. • Explains to each athlete the techniques and tactics of the sport. • Pays special attention to correcting athlete's mistakes. • Makes sure that his/her part in the team is understood by all the athletes. • Instructs every athlete individually in the skills of the sport. • Figures ahead on what should be done.

	• Explains to every athlete what he/she should and what he/she should not do. • Expects every athlete to carry out his assignment to the last detail. • Points out each athlete's strengths and weaknesses. • Gives specific instructions to each athlete as to what he/she should do in every situation. • Sees to it that the efforts are coordinated. • Explains how each athlete's contribution fits into the total picture. • Specifies in detail what is expected of each athlete.

Factor 2: Democratic behavior. This subscale contains nine items and involves the coach's willingness to have the student-athletes participate in the decision-making process.

Table 2

Leadership Scale for Sports: Democratic Behavior

Democratic Behavior	**Item**
	• Helps the athletes with their personal problems. • Helps members of the group settle their conflicts. • Looks out for the personal welfare of the athletes. • Does personal favors for the athletes. • Expresses affection he/she feels for his/her athletes. • Encourages the athlete to confide in him/her.

Factor 3: Autocratic behavior. This subscale contained five items and exhibits the extent to which the coach keeps all aspects of involvement separate from the student-athlete and places significant emphasis on the role of the coach as the authority figure.

Table 3

Leadership Scale for Sports: Autocratic Behavior

Autocratic Behavior	**Item**
	• Works relatively independent of the athletes. • Does not explain his/her action.

- Refuses to compromise a point.
- Keeps to himself/herself.
- Speaks in a manner not to be questioned.

Factor 4: Social support. This subscale was devised of eight items and focuses on the coach's involvement with the student-athlete and satisfying the personal needs of the college-student-athlete.

Table 4

Leadership Scale for Sports: Social Support

Social Support	**Items**
	• Helps members of the group settle their conflicts. • Looks out for the personal welfare of the athletes. • Does personal favors for the athletes. • Expresses affection he/she feels for his/her athletes. • Encourages the athlete to confide in him/her. • Encourages close and informal relationships with the athlete. • Invites athletes to his/her home.

Factor 5: Positive feedback. This subscale had five items and elaborated on the positive feedback coach who is vital in maintaining the student-athlete's motivation level.

Table 5

Leadership Scale for Sports: Positive Feedback

Positive Feedback	**Items**
	• Compliments an athlete for his performance in front of others. • Tells and athlete when he/she does a particularly good job. • Sees that an athlete is rewarded for good performance. • Expresses appreciation when an athlete performs well. • Gives credit when credit is due.

Symptoms Assessment Measure–Adult (Appendix A)**.** A screening assessment was assembled by the researcher utilizing multiple instruments including the DSM –5 Self –Rated Level One Cross–Cutting Symptom Measure–Adult, the GAD-7, Patient Health Questionnaire (PHQ-9), and Alcohol Use Disorders Identification Test (AUDIT) screening instruments to identify symptoms associated with anxiety, depression, suicidal behavior and substance abuse. The DSM –5 Self –Rated Level One Cross –Cutting Symptom Measure–Adult instrument identified 23-items on the DSM-5 scale (APA, 2013). The items on the DSM-5 instrument identified questions that assessed 13 psychiatric domains or subscales, including depression, anger, mania, anxiety, somatic symptoms, suicidal ideations, psychosis, sleep problems, memory, repetitive thoughts and behaviors, personality functioning, disassociation, personality functioning and substance abuse (APA, 2013). The Patient Health Questionnaire (PHQ-9) is a depression assessment tool that can be self-administered or administered by clinicians (Kroenke, Spitzer, & Williams, 2001). This 9-item instrument helps to identify the level of severity of depression symptoms and helps to guide in treatment decisions. The Generalized Anxiety Disorder scale (GAD-7) is a 7-item scale used to detect the severity of anxiety symptoms (Spitzer, Kroenke, Williams, & Löwe, 2006). The Alcohol Use Disorders Identification Test (AUDIT) is a 10-item assessment developed through a collaboration of the World Health Organization to screen for excessive use of alcohol that may be of risk to an individual (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). The instrument is also used to identify those individuals who are at risk of significant impairment of functioning to seek treatment.

The Symptoms Assessment Measure was comprised of 11 items measuring the student-athletes' self-reported symptoms and 7 additional questions pertaining to the student-athletes'

perception of their coach's influence on their symptoms. This instrument was used to describe the student-athletes' perception of their head coach's impact on their mental health symptoms. The students had to have had a minimum of a 3-month relationship with their head coach. They also had to have had consistent interaction with their head coach for the past 3-months prior to the study. Next, the SAM questionnaire required that the student-athletes describe thoughts and behaviors that may have bothered them within the past 3 months of engaging in the survey. In addition, the student-athletes had to disclose whether they were in-season or off-season. For the purposes of this study, in-season student-athletes were actively engaged in their sport and competition during the spring semester of the 2015-16 academic year (Scott, Paskus, Miranda, Petr, & McArdle, 2008). Off-season student-athletes participated in their sport during the fall semester of the 2015-16 academic year, and interacted with their coaches within the past 3 months. However, these student-athletes were not actively engaged in practices or game competition at the time of the study.

Directions. The directions for the SAM instructed the student-athletes to respond to the items on the questionnaire regarding thoughts and behaviors that might have troubled them within the past three months. Each question described how much (or how often) they have been bothered by each problem. Each item was measured on a 5-point Likert-type scale (0=none or not at all; 1=slight or rare, less than a day or two; 2=mild or several days; 3=moderate or more than half the days; and 4=severe or nearly every day). To determine scoring, a slider bar scale ranging from 0 to 100, 0 representing not at all to 100 representing severe was utilized to rate the severity of the student-athletes' symptoms.

Additional Items (Appendix D). The researcher sought to explore questions on the Symptom Assessment Measure that could potentially help determine a cause/effect relationship

between coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. Questions asked of the participants were: 1) What is your gender? 2) Are you between the ages of 18 and 24? 3) Are you currently participating in your sport in-season or are you currently in your off-season? 4) Have you been with your head coach at least three months? 4) Have you had any of the identified symptoms prior to the past three months? 5) Have you noticed a change in identified symptoms within the past three months? 6) Do you feel your coach's leadership behavior had any impact on changes in identified mental health symptoms? 7) If so, was there an increase (exacerbation) or decrease (alleviation) of symptoms? These questions reinforced any relationship, or changes in mental health symptoms based on student-athletes' perception of coaching leadership behaviors.

Procedures

A non-football Division I university was chosen as the sample institution due to its convenient location, access to student-athletes, and the number and variety of sports offered for both men and women. The researcher utilized two methods of recruitment to secure an adequate sample population. First, the researcher invited the student-athletes to an informational session about the research topic and the goals of the research. The informational session provided education and statistics regarding mental health issues within the student-athlete population. The participants were then able to complete the survey privately at a time and place of their choosing.

Secondly, the researcher submitted the survey instrument electronically to the university's Institutional Research and Assessment office who distributed the survey anonymously to the student-athletes via their school's email address. The Institutional Research and Assessment office could email the survey directly to the student-athletes while complying

with FERPA guidelines to protect the student-athlete's anonymity. The survey was available for approximately 2 weeks following the informational session.

The researcher administered the survey in Qualtrics using the previously identified instruments. Through Qualtrics, the data was collected anonymously and the student-athletes remained completely unidentifiable by the researcher or the university's athletic department. There was no way for anyone to electronically identify the source of the survey responses taken online. Provisions were made to make sure that no information was included in the survey that could have been used to identify the participant including their name, biographical information, or the sport they played. The student-athletes identified their age and gender; however, this information alone, or in conjunction with any of the other survey responses, was insufficient to compromise their anonymity. The anonymity of the Qualtrics process allowed the student-athletes the opportunity to respond to questions about their perception of their coach's leadership behavior truthfully and without fear of reprisal or recrimination.

An informed consent form (Appendix C) was uploaded and administered to each participant indicating that they were being asked to participate in a research study conducted by Joan Thurston, LMHC, doctoral student at the Department of Education and Human Services at the University of North Florida. The informed consent was the first page of the electronic survey in Qualtrics and the student-athletes had to consent to participation before they could access the survey questions. They were notified that the results from this study were a part of the researcher's dissertation study.

The students were advised that participation was 100% voluntary and that refusal to participate would involve no penalty or consequences of any kind, specifically having no effect on their athletic participation or status. They were also instructed that they could halt their

participation if they should feel any discomfort while engaging in the study. Should they feel as though their self-reported symptoms were causing some discomfort, they could seek assistance from resources such as a mental health professional such as a therapist or social worker at the university's Counseling Center, a community mental health center such as Mental Health Resource Center in Jacksonville, or through a private professional identified by their insurance plan or Psychologytoday.com, a website that provides local mental health professionals with specific specialties.

The participants were also notified that access to the data responses, but not their personally identifiable information, were subject to analysis and review by the researcher, Committee Chair Dr. Jennifer Kane, Co-Chair Dr. Luke Cornelius, Methodologist Dr. Daniel Dinsmore, and Committee member, each from the University of North Florida's Department of Education and Human Services and Dr. Joel Beam from Brooks College of Health. Additionally, the data analysis would be shared with the University to identifying gaps in services needed by the University of North Florida student-athletes. The data collected was protected throughout the research study through password protections on the computer.

Ethical Assurances

The athletic department for the non-football Division I university endorsed this research to help identify gaps in mental health services to their student-athletes. Thus, the athletic department provided support and assisted in the recruitment of the student-athletes to attend the informational session facilitated by the researcher. The students were provided education about the prevalence of mental health in the United States and in their student population particularly. Students were unable to engage in the study at the information session as intended due to technical difficulties. The student-athletes could participate in the research with no undue

influence as the participants were notified that the research was strictly voluntary and they could take the survey at a time and place of their choosing, and athletic personnel were not involved in the actual administration or participation of the study.

Data Analysis

Utilizing descriptive statistics, the researcher analyzed the findings of this study and used the information to describe, summarize, and make sense of the data. A linear regression analysis was applied to explain or predict the value of the dependent variable based on the independent variable (Hinkle et al., 2003; Johnson & Christensen, 2008; Spector, 1981). Initially, a multiple regression analysis was proposed to analyze the data; however, due to the small sample population a linear regression analysis was found to be most appropriate. The linear regression analysis was an appropriate statistical model because of its ability to explore, understand, and describe a relationship between coaching leadership behaviors and the symptoms associated with anxiety, depression, suicidal behavior and substance abuse. It was also used to examine the research questions and make inferences as to any statistical significance or correlation between coaching leadership behaviors from the Leadership Scale for Sports and symptoms associated with mental health symptoms, anxiety, depression, suicidal behavior and substance abuse. The data was then interpreted and analyzed to detect the overall relationship between leadership behavior and the symptoms associated with the four disorders identified.

The analysis of data for all independent and dependent variables in the study are addressed in the results section of this dissertation. The analysis provided the minimum and maximum values of the items, mean, standard deviation, and variance, on the instruments. All data were examined with the use of SPSS version 22.0, to obtain the statistics necessary to help draw the appropriate conclusions (Creswell, 2009; George & Mallery, 2003).

Summary

A non-experimental, cross-sectional correlational design with survey methodology was utilized in this study. This paradigm was chosen to identify a relationship between student-athletes' perceptions of coaching leadership behaviors and student-athletes who self-reported symptoms associated with mental health disorders such as anxiety, depression, suicidality, and substance abuse and attempt to generalize it to the student-athlete population. In addition, the study sought to determine if there were any changes in symptoms associated with the four mental health disorders because of a student-athlete's perception of their coach's leadership behavior or style.

Chapter Four discusses the findings of the analyses used in the study. The research questions of the study were examined to demonstrate the impact of the student-athletes' perceptions of coaching leadership behavior on mental health disorders such as anxiety, depression, suicidality, and substance use disorders and any gender differences.

Chapter Five provides a discussion of the results with conclusions, implications, future research, and recommendations regarding the impact student-athletes' perceptions about coaching leadership behavior had on symptoms associated with anxiety, depression, suicidality, and substance abuse. The chapter also includes a discussion of the supplemental findings within the research study.

Chapter 4: Results

The purpose of this research study was to identify if there was any relation between student-athletes' perceptions of their coach's leadership behaviors and changes in symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. Additionally, there was a planned examination of gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse disorders. However, an analysis was not completed on the second question regarding gender due to the relatively small sample size and the large proportion of females who made up more than 85% of the usable sample. Due to the disproportionate number of females who participated in the study, interpretation of that information may not lead to an accurate representation of gender differences in the perceptions of coaching leadership on mental health symptoms.

For greater context of the quantitative data, additional questions on the Symptoms Assessment Measure were addressed as the researcher sought to expound upon any relation between the perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. Gender, age, and in- versus off-season were addressed in Chapter Three. The questions explored were: 1) Have you been with your head coach at least three months? 2) Have you had any of the identified symptoms prior to the past three months? 3) Have you noticed a change in identified symptoms within the past three months? 4) Do you feel your coach's leadership behavior had any impact on changes in identified mental health symptoms? 5) If so, was there an increase (exacerbation) or decrease (alleviation) of symptoms?

An exploratory factor analysis was conducted utilizing the participants' responses to the variables on two measures: the Leadership Scale for Sports, and the Symptoms Assessment Measure. All data were examined with the use of SPSS version 22.0 to obtain the descriptive statistics necessary to help draw appropriate conclusions. Descriptive statistics were identified with the use of a linear regression analysis instead of the initially proposed multiple regression analysis.

Factor Analysis for Student-Athletes' Perception of Coaching Leadership Behavior -LSS

The factor analysis method was used to examine the student-athletes' responses to their perception of their head coach's leadership behaviors. The Leadership Scale for Sports measure was analyzed using the 40-item survey which included the following subscales: 1) training and instruction, 2) democratic, 3) autocratic, 4) social support, and 5) positive feedback. The variables were measured on a 5-point Likert-type scale (1=never, 2= seldom or 25% of the time, 3=occasionally or 50% of the time, 4=often or 75% of the time, and 5=always). The participants were instructed to rate each item on a scale of 1 to 5, indicating their perception or level of agreement with the statements pertaining to their coach. The responses were analyzed in SPSS version 22.0.

The results presented here include descriptive statistics such as sample size, minimum and maximum values, the mean, standard deviation, and total variance. Factor loadings were also computed and assigned for each of the items on the LSS measure. The principal component analysis method of extraction was applied to identify the proportion of each variable's variance that can be explained by retained factors. This analysis also utilized the unrotated factor method as there was only one factor under consideration as well as the poor sample size. Of the 33

student-athletes who responded to the measure, a sample size of n=24 was used in this factor analysis. See Table 6 for descriptive statistics.

Table 6

Descriptive Statistics for Leadership Scale for Sports (n=24)

Coaching Leadership Behaviors	*Min Value*	*Max Value*	*M*	*SD*
Training and Instruction Leadership				
1. Sees to it that every athlete is working to his/her capacity.	2	5	4.08	.86
2. Explains to each athlete the techniques and tactics of the sport.	2	5	4.17	.97
3. Pays special attention to correcting athlete's mistakes.	1	5	3.84	1.07
4. Makes sure that his/her part in the team is understood by all the athletes.	2	5	4.48	.82
5. Instructs every athlete individually in the skills of the sport.	2	5	3.80	1.08
6. Figures ahead on what should be done.	2	5	4.28	.84
7. Explains to every athlete what he/she should and what he/she should not do.	1	5	4.04	1.14
8. Expects every athlete to carry out his assignment to the last detail.	2	5	4.32	.80
9. Points out each athlete's strengths and weaknesses.	1	5	3.96	1.06
10. Gives specific instructions to each athlete as to what he/she should do in every situation.	2	5	3.72	1.02
11. Sees to it that the efforts are coordinated.	2	5	4.0	.96
12. Explains how each athlete's contribution fits into the total picture.	2	5	4.2	.87
13. Specifies in detail what is expected of each athlete.	3	5	4.28	.74
Democratic Leadership				
14. Asks for the opinion of the athletes on strategies for specific competitions.	1	5	3.20	1.67
15. Gets group approval on important matters before going ahead.	1	5	3.36	1.41
16. Lets his/her athletes share in the decision making.	1	5	3.08	1.24

17. Encourages athletes to make suggestions for ways of conducting practice.	1	5	2.44	1.26
18. Lets the group set its own goals.	2	5	3.83	.67
19. Lets the athletes try their own way even if they make mistakes.	1	5	3.08	1.16
20. Asks for the opinion of the athletes on important coaching matters.	1	5	2.68	1.48
21. Lets athletes work at their own speed.	1	5	3.08	1.24
22. Lets the athletes decide on the plays to be used in a game.	1	5	2.88	1.86
Autocratic Leadership				
23. Works relatively independent of the athletes.	1	5	3.20	1.67
24. Does not explain his/her actions.	1	5	3.36	1.41
25. Refuses to compromise a point.	1	5	3.08	1.24
26. Keeps to himself/herself.	1	5	2.44	1.26
27. Speaks in a manner not to be questioned.	1	5	3.83	.67
Social Supportive Leadership				
28. Helps the athletes with their personal problems.	1	5	3.68	.89
29. Helps members of the group settle their conflicts.	1	5	3.36	1.49
30. Looks out for the personal welfare of the athletes.	2	5	3.96	.96
31. Does personal favors for the athletes.	1	5	3.00	1.58
32. Expresses affection he/feels for his/her athletes.	1	5	3.24	1.52
33. Encourages the athlete to confide in him/her.	1	5	3.36	1.49
34. Encourages close and informal relations with the athletes.	1	5	2.52	1.76
35. Invites athletes to his/her home.	1	5	2.36	2.41
Positive Feedback Leadership				
36. Compliments an athlete for his performance in front of others.	1	5	3.88	.94
37. Tells an athlete when he/she does a particularly good job.	2	5	4.16	.81
38. Sees that an athlete is rewarded for good performance.	1	5	3.68	1.31

39. Expresses appreciation when an athlete performs well.	1	5	4.08	.99
40. Gives credit when credit is due.	1	5	4.16	1.06

The factor analysis also indicated the total variance explained among the student-athletes' responses on the LSS. The "% of variance" indicates how much of the total variability (in all the variables together) can be accounted for by each factor (George & Mallery, 2003). Eigenvalues were used to determine the total variance explained. Eigenvalues are designed to show the proportion of variance accounted for by each factor (George & Mallery, 2003). The first eigenvalue was largest because the first factor always explains the greatest amount of total variance. Each eigenvalue thereafter will be smaller than factor 1; however, the cumulative percent of the total variance explained equals 100% (George & Mallery, 2003). For example, Factor 1 with a value 15.212 accounted for 38% of the variability in all variables.

Factor Loadings

A principal component analysis method of extraction was applied to determine factor loadings for each of the items on the LSS measure. Factor loadings were calculated to show the relationship between the factor extracted and the variables (see Table 7). Factor loadings between -1.0 to +1.0 indicate the strength of a relationship between a variable and a factor with preferable values greater than 0.3 (George & Mallery, 2003). Most item values were above the 0.3 threshold and appeared to measure what they were supposed to - the student-athlete's perception of his or her head coach's' leadership behaviors. Each item loaded strongly onto each factor except for items 23 to 26 which were the only items that were below the 0.3 threshold. The factor scores created from this exploratory factor analysis are like z scores and have a mean of 0 and a standard deviation of 1. The z scores are considered sample dependent.

Table 7

Leadership Scale for Sports Factor Loadings

Coaching Leadership Behaviors	*Factor Loadings*
Training and Instruction Leadership	
Sees to it that every athlete is working to his/her capacity.	.61
Explains to each athlete the techniques and tactics of the sport.	.66
Pays special attention to correcting athletes' mistakes.	.76
Makes sure that his/her part in the team is understood by all the athletes.	.53
Instructs every athlete individually in the skills of the sport.	.84
Figures ahead on what should be done.	.62
Explains to every athlete what he/she should and what he/she should not do.	.73
Expects every athlete to carry out his assignment to the last detail.	.62
Points out each athlete's strengths and weaknesses.	.79
Gives specific instructions to each athlete as to what he/she should do in every situation.	.69
Sees to it that the efforts are coordinated.	.71
Explains how each athlete's contribution fits into the total picture.	.76
Specifies in detail what is expected of each athlete.	.58
Democratic Leadership	
Asks for the opinion of the athletes on strategies for specific competitions.	.74
Gets group approval on important matters before going ahead.	.73
Lets his/her athletes share in the decision making.	.73
Encourages athletes to make suggestions for ways of conducting practice.	.47
Lets the group set its own goals.	.32
Lets the athletes try their own way even if they make mistakes.	.56
Asks for the opinion of the athletes on important coaching matters.	.58
Lets athletes work at their own speed.	.60
Lets the athletes decide on the plays to be used in a game.	.61

Autocratic Leadership	
Works relatively independent of the athletes.	-.09
Does not explain his/her actions.	-.36
Refuses to compromise to a point.	-.22
Keeps to himself/herself.	-.15
Speaks in a manner not to be questioned.	.30
Social Supportive Leadership	
Helps the athletes with their personal problems.	.67
Helps members of the group settle their conflicts.	.80
Looks out for the personal welfare of the athletes.	.72
Does personal favors for the athletes.	.44
Expresses affection he/feels for his/her athletes.	.75
Encourages the athlete to confide in him/her.	.67
Encourages close and informal relations with the athletes.	.37
Invites athletes to his/her home.	.26
Positive Feedback Leadership	
Compliments an athlete for his performance in front of others.	.40
Tells an athlete when he/she does a particularly good job.	.66
Sees that an athlete is rewarded for good performance.	.85
Expresses appreciation when an athlete performs well.	.79
Gives credit when credit is due.	.71

Reliability

The internal consistency and test-retest reliability of the LSS were checked and were found to be appropriate (Chelladurai and Saleh, 1980). Chronbach's alpha was calculated for each subscale. Coefficient Alpha was used to determine the reliability and internal consistency of the scale. The Chronbach Alpha for the LSS had a reliability score of .94, indicating that the scale was reliable in measuring what it was supposed to - in this case, student-athletes' perception of their head coach's coaching leadership style.

Validity

The LSS was designed to measure student-athletes' perception of coaching leadership behaviors. To determine construct validity and consistency for this research, the values for the identified sample population were calculated utilizing an exploratory factor analysis. Construct validity was found to be steady based on factor interpretation (Chelladurai & Selah, 1980). Additionally, the measure was found to be statistically significant based on a five-factor solution table. The exploratory factory analysis was also used to estimate the face validity of this instrument.

Factor Analysis for Symptoms Assessment Measure

An additional factor analysis was conducted for the Symptoms Assessment Measure (SAM), an 11-item survey measuring types of symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. The variables on the SAM were measured on a scale of 0 to 100. Zero indicated not at all and 100 represented severe. The participants were asked to indicate the level of impact each symptom had on the student-athlete. The responses to the 11items were analyzed in SPSS version 22.0.

SPSS version 22.0 results also identified descriptive statistics such as sample size, minimum and maximum values, the mean, standard deviation, and total variance explained for the SAM. The principal component analysis method of extraction was also applied to extract any underlying constructs. This analysis also utilized an unrotated factor method as there was only one factor under consideration. Of the 33 student-athletes who responded to the survey, a sample size of n=12 was used in the factor analysis; student-athletes who did not complete the measure were not included. See Table 8 for descriptive statistical analysis.

Table 8

Descriptive Statistics for Symptoms Assessment Measure (n=12)

	Min Value	*Max Value*	*M*	*SD*
Anxiety				
Feels nervous or frightened, on edge	0	80	23.08	24.16
Avoid situations that make you anxious	0	100	26.25	30.66
Worry too much about different things	0	97	35.50	28.98
Depression				
Have you had little interest or pleasure doing activities	0	96	28.33	38.47
Crying episodes frequently	0	84	25.92	32.64
Feel down, depressed, or hopeless	0	81	23.83	33.97
Have difficulty sleeping	0	100	17.25	19.45
Suicidal Behavior				
Have thoughts of harming yourself	0	68	4.08	14.15
Made an attempt to harm yourself	0	100	4.08	14.15
Substance Abuse				
Drink more than 4 alcoholic drinks daily	0	54	9.08	19.92
Use medications that are not prescribed by your own doctor (i.e. Percocet, Xanax, Hydrocodone), or use drugs like Marijuana, Ecstasy, Cocaine, Crack, Heroin, Crystal Meth, Hallucinogens (like LSD)	0	50	5.05	14.49

The total variance explained was also explored in the factor analysis of the SAM. Eigenvalues were again used to determine the total variance explained. SPSS version 22.0

computation of the eigenvalues yielded a value of the 5.85 for the first factor which accounted for 53% of the total variance explained on the SAM measure. The variance was also indicated on a scatter plot.

Factor Loadings

The principal component analysis method of extraction was once again applied to determine factor loadings for each of the items on the SAM measure. SPSS version 22.0 provided an output of the factor loadings for the SAM. The first factor loading extracted on the SAM yielded scores that were all well above the 0.3 threshold, indicating construct validity of the instrument (see Table 9). The factors scores were as z scores and were also considered to be sample dependent.

Table 9

Symptoms Assessment Measure Factor Loadings

Symptoms	*Factor Loadings*
Anxiety	
Feel nervous or frightened, or on edge	.87
Avoid situations that make you anxious	.70
Worry too much about different things	.78
Depression	
Have you had little interest or pleasure doing activities	.45
Feel down, depressed, hopeless, or helpless	.81
Crying episodes frequently	.85
Have difficulty sleeping	.60
Suicidal Behavior	
Have thoughts of harming yourself	.68
Made an attempt to harm yourself	.68

Substance Abuse	
Drink more than 4 alcoholic beverages daily	.76
Use medications that are not prescribed by your own doctor, (i.e. Percocet, Xanax, Hydrocodone), or use drugs like Marijuana. Ecstasy, Cocaine, Crack, Heroin, Crystal Meth, Hallucinogens (like LSD)	.76

Reliability

Coefficient Alpha was also used to determine the reliability and internal consistency of the SAM instrument. Chronbach Alpha for the SAM had a reliability score of was .89. The strong reliability of this instrument demonstrated that the scale was reliable in measuring what it was supposed to, symptoms associated with anxiety, depression suicidal behavior and substance abuse.

Validity

The SAM was designed to measure symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. The exploratory factory analysis was also used to estimate the validity of the SAM instrument. Construct validity was determined to be stable based on factor interpretation (Chelladurai & Selah, 1980). Additionally, the measure was found to be statistically significant.

Threats to validity

Lewin (2005) indicated that threats to the validity of instruments could occur when engaging in survey methodology. In this study the following threats were recognized. First, the participants may not have understood some of the questions being asked. Second, they may not have remembered events that occurred within the past three months that could have affected their mental health and symptoms associated with anxiety, depression, suicidality, or substance use.

Third, respondents may not have answered questions due to the sensitivity of the subject and the stigmatization of mental health in general.

There were several threats to the validity of the questionnaires presented in this study as some students did not answer all the items on the surveys. In the case of this study, only twelve students engaged in the entire study. Twenty-four out of thirty-three answered all items on the coaching leadership scale. Others responded only to items on the SAM scale. Some student-athletes responded to some of the items on each scale. The analysis and interpretation was based on a sample size of n=12, those student-athletes who completed all sections of the two instruments.

Regression Analysis

A linear regression analysis was used to predict any relationship between student-athletes' perceptions of coaching leadership behaviors and changes in symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. In this research, the dependent variable was characterized by symptoms associated with the identified mental health disorders: anxiety, depression, suicidality, and substance abuse. The independent variable, the student-athlete's perception of his or her coach's coaching leadership behavior, included five subscales: training and instruction, democratic, autocratic, social support, and positive feedback dimensions. The factor scores from the exploratory factor analysis for the LSS and SAM reported in the previous sections were used in the linear regression.

Based on the results, the regression model was not significant ($F=.52$, $p=.49$). The R^2 for the model was .061. Beta coefficient was -0.248, indicating there is a negative relation between the independent and dependent variables. Given the small sample size of this study, it is likely there was not enough statistical power to identify a relationship between the variables.

Factor scores were indicated based on linear regression analysis and a scatterplot. The scatterplot also indicated that there was no linear relation between coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance, thus minimizing the likelihood of changes in student-athlete symptomology (See Figure 1).

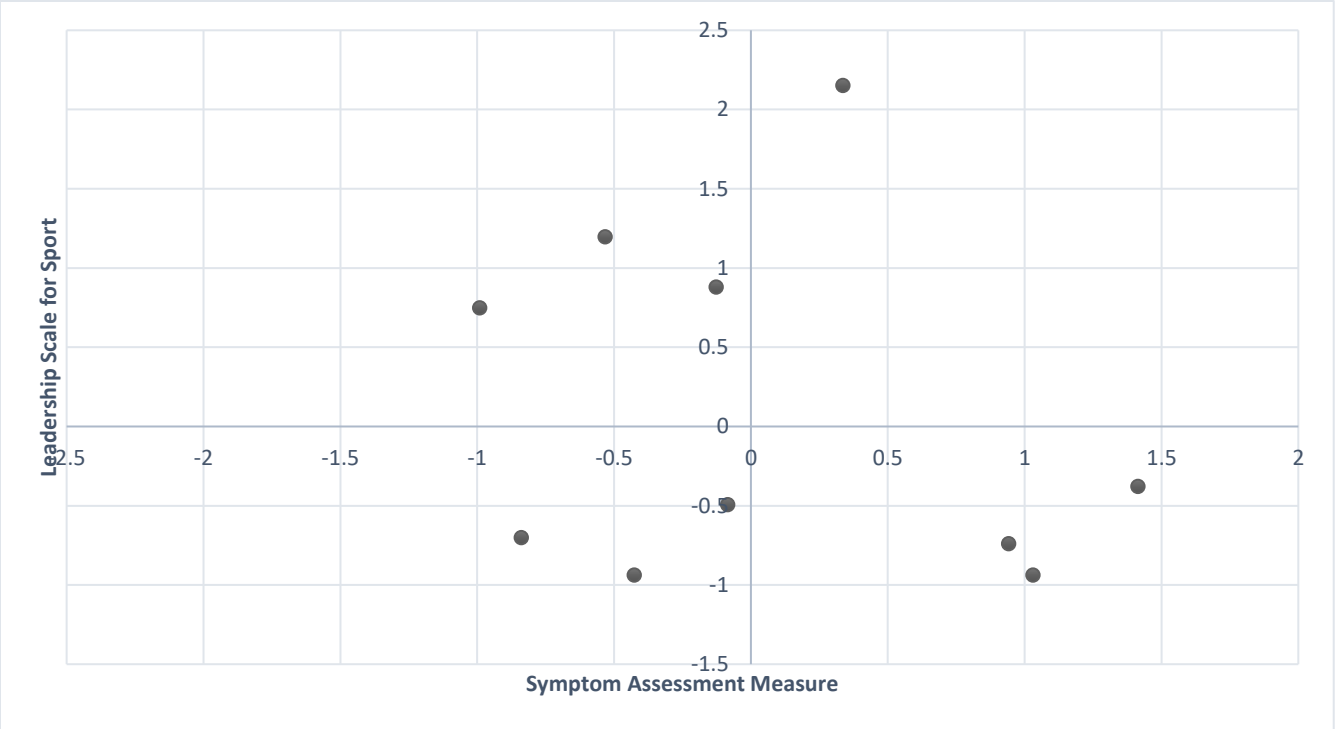

Figure 1. Linear Regression Analysis: Scatter plot

Supplemental Contextualization

Additional questions presented on the SAM measure were primarily related to the student-athletes' gender, age, and perceptions of changes in symptoms associated with the four mental health disorders on the SAM: anxiety, depression, suicidal behavior, and substance abuse. Gender and age were addressed in Chapter Three. In regards to perception of changes in symptoms associated with anxiety, depression, suicidal behavior and substance abuse, the additional questions asked: 1) Are you currently in your in or off-season? 2) Have you interacted

with your head coach at least three months? 3) Have you had any of the identified symptoms prior to the past three months? 4) Have you noticed a change in identified symptoms within the past three months? 5) Do you feel your coach's leadership behavior had any impact on changes in identified mental health symptoms? If so, was there an increase (exacerbation) or decrease (alleviation) of symptoms?

Though the supplemental questions on the SAM measure were not included in the regression analysis, the responses provided some supplemental contextualization to the analyzed data. This provided some evidence that there were some student-athletes who experienced symptoms associated with anxiety, depression, suicidal behavior, and substance abuse during their interaction with their head coach. In fact, there were student-athletes who attributed their changes in symptoms to their head coach's leadership behaviors.

Research Questions and Hypotheses

Q1: Is there any relation between student-athletes' perception of coaching leadership behavior and changes such as the exacerbation or alleviation of symptoms associated with mental health disorders including depression, suicidality, anxiety, or substance abuse disorders? The study's first hypothesis indicated that student-athletes' perception of coaching leadership behavior does have a positive correlational relation to changes in mental health symptoms associated with anxiety, depression, suicide and substance abuse in the student-athlete population. With respect to this research study, there was no statistical significance that would support this claim based on the analysis, however the raw data and supplemental questions suggest some support for further exploration of future research in this area.

Q**2:** Are there gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance

abuse disorders? The study's second hypothesis was that there are no differences among gender regarding student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse. The results of this research question were determined to be highly skewed as eighty-five percent of the respondents were female and only fifteen percent were male. There was not a representative sample of male participants that would provide conclusive evidence that there were or were not gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse.

Summary of Findings

The findings of the statistical analysis done in SPSS version 22.0 showed that the independent variable's (student-athlete's perception of coaching leadership behaviors) impact on the dependent variable (changes in symptoms associated with anxiety, depression, suicidal behavior, and substance abuse) had a non-linear relationship and was not significant. However, though no additional statistical analysis was done to analyze the additional questions, the total participants' responses provided some results that warrant further exploration.

First, a total of 27 student-athletes responded to the additional questions on the Symptom Assessment Measurement portion of the survey. One hundred percent of the respondents (n=27) reported that they had contact with their head coach for at least three months prior to taking the survey. Forty-four percent of student-athlete respondents admitted to having symptoms associated with one of the four disorders, anxiety, depression, suicidality, and substance abuse prior to their interaction with their head coach. Fifty-six percent indicated no symptoms prior to the previous three months of their interaction with their head coach. The same number of participants (n=27) were asked if they noticed a change such as an increase or decrease in

identified symptoms within the past three months during their interaction with their head coach. Thirty percent of the student-athletes indicated that they had some increase in symptoms within the three months of their interaction with their head coach. Nineteen percent indicated some decrease. However, 52% indicated that there was no change, exacerbation or alleviation, in symptoms.

Also of significance is the relevance of the student-athletes' perception that their coach's leadership behaviors had some direct impact on their identified symptoms. The question was asked, "Do you feel your coach's leadership behavior had any impact on changes in identified mental health symptoms? If so, was there an increase or decrease of symptoms?" Twenty-six percent of the respondents indicated that they felt that their head coach had some impact on the increase in symptoms. Eleven percent indicated there was a decrease in symptoms, and 63% indicated that their head coach's leadership behavior did not impact have any symptoms at all. Though the sample size does not represent all student-athletes, having any number of student-athletes indicate they are experiencing mental health symptoms due to their coaching leadership behaviors should be a concern. Conversely, if there is a direct benefit from coaching leadership in the form of decreased symptoms, this benefit should be explored as well.

Chelladurai and Saleh's (1980) Leadership for Sport Scale and the Symptom Assessment Measure provided the opportunity to investigate this study's research questions. The analysis included the investigation of descriptive statistics, gender differences, relation between variables, exploratory factor analysis to compute factor scores, and a regression analysis. Chapter Five will provide a summary of Chapters One through Four examining the purpose of this study, the methodology used, the results and findings, conclusions, and recommendation for future research.

Chapter 5: Summary, Conclusions, and Recommendations

Summary of the Study

The purpose of this quantitative, cross-sectional, non-experimental study was to engage in an examination of student-athletes' perception of coaching leadership behaviors' influence on symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. Chapter Five will summarize the problem, methodology used, the findings in relation to the theoretical framework, and previous literature related to the study's focus. Strengths, limitations, implications, conclusions, and recommendations for future research and practice are included in the chapter.

Mental health in sports is a subject that is limited in its inquiry within the student-athlete population (Beauchemin, 2014; Reardon & Factor, 2010; Donohue et al., 2013; Hughes & Leavey, 2012). The examination of psychosocial factors, such as the influence of coaching leadership behaviors on the mental health of student-athletes, is also limited. Beauchemin (2014) noted the unique stressors and mental health challenges that impact the college student-athlete. Student-athletes not only encounter the stresses of being a student, but also incur the added demands of being an athlete (Watson & Kissinger, 2007). The demands and expectations that are placed on an athlete can have some influence on the college student-athlete's' mental health (Cleary et.al, 2011). Although research data in sport psychiatry has focused on some aspects of mental health such as depression and anxiety, suicidal ideations, and substance abuse in college students in general, the student-athlete population has not been extensively studied. Due to the limited research focus on the influences that may affect the mental health of student-athletes, this study sought to expand the knowledge in this area by utilizing the theoretical frameworks of the biopsychosocial model and support theory as the foundation for exploring

whether there is any relation between coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. The researcher also attempted to identify whether there were gender differences in student-athletes' perception of their head coach's leadership behaviors and mental health symptoms. Two questions provided the framework for this study:

RQ 1: Is there any relation between student-athletes' perception of coaching leadership behavior and changes in symptoms associated with mental health disorders including depression, suicidality, anxiety, or substance abuse disorders?

RQ 2: Are there gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse disorders?

Thirty-three student-athletes responded to the study. The participants engaged in men's and women's sports at a Division I non-football university in the Atlantic Sun Conference. Sports teams included men's basketball, baseball, golf, track and field, cross country, tennis, and soccer. The women's teams included basketball, golf, track and field, cross country, soccer, tennis, softball, volleyball, beach volleyball, and swim team. Two survey questionnaires, the Leadership Scale for Sport (LSS) and the Symptom Assessment Measure (SAM) were administered. The LSS provided the basis for the independent variable: coaching leadership behaviors, while the SAM was the determinant of the dependent variable: symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. The LSS is a 40-item survey categorized into five coaching leadership behaviors: 1) training and instruction, 2) democratic 3) autocratic 4) social support and 5) positive feedback. The SAM is an 11-item questionnaire pertaining to symptoms associated with anxiety, depression, suicidal behavior, and substance

abuse. The participants' answers to the two instruments were analyzed using descriptive statistics, correlational examination of dependent and independent variables, exploratory factor analysis, and regression analysis. Additionally, there were 7 questions used to provide supplemental contextualization to the data collected and to ask specific questions relating to gender, age, and perceptions of the student-athlete's head coach's impact on his or her mental health. Age and gender were discussed in Chapter Three.

Discussion

This discussion section draws conclusions about the findings discovered and conferred in Chapter Four. In addition, this section relates the findings and conclusions to previous research and the theoretical bases for the study identified in Chapter Two.

To provide some new knowledge about psychosocial influences of student-athletes' mental health and well-being, the researcher utilized George Engel's biopsychosocial model and others' (i.e. Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001) social support theories as the theoretical foundation for the purpose of engaging in an investigation of the relation between coaching leadership behaviors and symptoms associated with mental health disorders such as anxiety, depression, suicidal behavior and substance abuse.

Engel's biopsychosocial model indicates that biological, psychological, and social factors are all interconnected and play a role as the keystone to determining mental health issues. (Meyer, 2008; Pilgrim, 2015). Biological influences include genetics and a predisposition to mental health issues. Psychological influences include stressors such as difficulty transitioning to college, while social factors include aspects such as the environment and relationships, and, in the case of this study, the coach's relationship with the student-athlete.

Social support theory focuses on multiple aspects of the interaction between the provider of support and the recipient (Rosenfeld et al. 1989). Social support was viewed in this study as the relationship between the student-athlete and his or her coach. Social support theory addresses the fact that close and caring relationships are linked with improved health and well-being (Feeney & Collins, 2015). It also proposes that student-athletes can use their coaches, athletic trainers, sports psychologists, and teammates to help them cope with the stresses of life (Rosenfeld et al., 1989).

Findings

RQ 1: The first research question asked, "Is there any relation between student-athletes' perception of coaching leadership behavior and changes in symptoms associated with mental health disorders including depression, suicidality, anxiety, or substance abuse disorders?" The initial hypothesis indicated that student-athletes' perception of coaching leadership behaviors do have a positive correlational relationship to changes in symptoms associated with anxiety, depression, suicide, and substance abuse. However, the analyzed findings from the regression analysis completed for this study indicated there was a non-linear relationship between coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, and substance abuse ($F=.52$, $p=.49$). R^2 for the model was .061 and the beta coefficient was -0.248, indicating a negative relation between the independent and dependent variables and no statistical significance between coaching leadership behaviors and its relation to symptoms associated with depression, anxiety, suicidal behavior and substance abuse.

Discussing some of the raw data in the context of shedding light on the responses from the respondents from this university is also important. Responses on the SAM were based on minimum and maximum values between 0 and 100. There were instances when a student-athlete

responded to the 11-item portion of the measure with values between 80-100 for symptoms associated with anxiety, depression, and suicidal behavior, and scores ranging from 50 to 54 for substance abuse. The results indicated that there were some student-athlete participants who were, in fact, struggling with mental health issues within three-months of engaging in the study.

Some student-athletes participating in this study alluded to the influence of psychosocial factors, such as their head coach's leadership behavior, on their functioning; likewise, they reinforced social support theorists' belief that social support has some direct influence on the emotional and mental states of athletes (Feeney & Collins, 2015; Ludvigson, 2013; Robbins & Rosenfeld, 2001; Rosenfeld et al.1989; Yang et al., 2010). When asked if they felt their head coach's leadership behavior had any impact on changes in symptoms, some student-athletes reported that they perceived that their coach's leadership behavior caused some change in symptoms associated with anxiety, depression, suicidal behavior, and substance abuse.

Thirty seven percent of the students who completed the supplemental questions on the SAM indicated that their head coach's leadership behavior had some influence on their mental health. Some reported an exacerbation of symptoms while others identified some alleviation of their symptoms due to their head coach's leadership behavior. Twenty six percent reported an increase in symptoms while eleven percent indicated a decrease in symptoms due to their interaction with their head coach and their coach's leadership behavior. When asked if the student-athletes noticed changes such as an increase or decrease in symptoms within the past three months that coincided with their interaction with their head coach, 30% indicated an increase while 19% reported a decrease in symptoms. These results concur with reports that coaches do wield power over their athletes and their influence is related to student-athletes' psychological well-being (Horn, 2008; Locke et al., 2012; Stebbings et al., 2012).

This indication is also strengthened by Reinboth et al. (2004) literature that suggested the style and interpersonal behavior of the coach can have an impact in shaping the psychological, emotional, and physical effects of the student-athlete. Coaches, especially the head coach, play the role of communicator, educator, builder of self-esteem and help to shape the lives of the student-athletes they are charged with overseeing. As Gearity & Murray (2011) and Hodge & Lonsdale (2011) suggested, the head coach is the one person who has the power and authority to control much of the psychological and social aspects of the student-athlete.

It is important to note that sometimes moderating variables can occur that changes the direction or strength of the relation between the independent variable and dependent variable (Johnson& Christensen, 2008). In the case of this study, other psychosocial stressors or factors could have impacted the interaction between the independent variable, coaching leadership behavior and the dependent variable, symptoms associated with the aforementioned disorders. The supplemental data collected alluded to this. For example, 44% of the student-athlete respondents admitted to having symptoms associated with one of the four disorders: anxiety, depression, suicidality, and substance abuse, prior to three months of their interaction with their head coach. This indicates that there are student-athletes overwhelmed with symptoms associated with mental health issues that could be triggered by psychosocial factors other than their head coach's leadership behavior. This is certainly an area that warrants additional exploration.

RQ 2: The second research question asked, "Are there gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse disorders? The hypothesis was that there are no differences among gender regarding student-athletes' perception of coaching leadership

behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse disorders. The results of this research question were determined to be highly skewed as 85% of the respondents were female and only 15% were male. There was not a representative sample of male participants that would provide conclusive evidence that there were or were not gender differences in student-athletes' perception of coaching leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, or substance abuse.

Strengths

There were strengths associated with this study. First, the study was conducted anonymously with no breaches in anonymity. Therefore, the student-athletes who took the survey could be considered as being honest with their responses regarding symptoms associated with mental health disorders. Next, incorporating an informational session within the study was one way to help provide some education on mental health within the student-athlete population being targeted on a more immediate basis. The session provided information and statistics on the relevance and importance of mental health in student-athlete populations. This may have increased the likelihood of the responsiveness of the student-athletes' as they were able to receive information that normalized symptomology and offered support should the student-athletes need assistance.

An additional strength of this research was exploring a topic that Reardon and Factor (2010) indicated was poorly studied in the field of sport psychiatry. This study explored the seriousness and importance of acknowledging that mental health issues do exist for student athletes who are often considered invincible. In fact, one student approached the researcher to share that she was thankful that such as study was being conducted as she felt there was a need for this issue to be addressed. The researcher sought to shed light on the topic of mental health, a

subject that is often considered to have significant stigma attached to it, while at the same time address some apparent needs by student-athletes.

Results of this study may increase knowledge and understanding of the effect of coaching leadership behaviors on student-athletes' mental health. With this information, head coaches and other athletic personnel may begin to gain awareness of this influence and educate themselves about mental health issues that may affect their student-athletes. Considering that one in five individuals suffer from a mental health disorder (NAMI, 2015), 22 million individuals over 18 suffer with substance abuse, 40 million people suffer from anxiety, while the suicide rate is increasing at an alarming rate, it is imperative that the student-athletes' who did participate in this study have their voices heard.

Other benefits to this study included the interpretation of the supplemental questions because the student-athletes' responses created the opportunity for further exploration of a cause/effect relationship between psychosocial stressors such as coaching leadership behaviors. Coaches, the athletic department, and personnel from the institution identified in the study should be able to acknowledge that mental health issues do exist on their teams and in their locker rooms; therefore, special attention should be paid to ensuring that the mental health of their student-athletes is a top priority.

Limitations

There were some limitations regarding making inferences about the relation between student-athletes' perception of coaching leadership behaviors and the student-athletes' perception of changes in symptoms associated mental health disorders such as anxiety, depression, suicidal behavior, or substance abuse. First, the sample size was small as the respondents to the survey were approximately 12% percent of the sample population of student-

athletes at this Division I non-football school in the Atlantic Sun Conference. Second, some student-athletes did not fully complete the entire survey, therefore eliminating them from any in depth analysis. The small sample size reduced the opportunity for the data to be analyzed with conclusive or significant results.

Due to the stigma attached to mental health issues, some student-athletes may have been fearful of consequences associated with having to provide information regarding their mental health, and may have shied away from engaging in the survey. It is possible that student-athletes may not have trusted that the study was in fact anonymous and possibly believed they would be reprimanded for their honesty on the survey. This was especially evident in the significantly low percentage of student-athletes who provided a response for questions 8 through 11 on the SAM portion of the survey. Raw data indicated that 16 out of 23 students answered question 8 which asks if the student-athlete has had any thoughts of harming him or herself. Fifteen student-athletes answered questions about attempting to harm themselves and drinking more than four drinks per day. Only 13 student-athletes answered the final question on use of medications not prescribed or other illegal substances.

Although it was difficult to control for the successful completion of all questions on the surveys for maximum validity of the instruments, there may have been some underlying reasons the students felt they could not share some of their deepest secrets; the possibility exists that students feared retribution, reinforcing Al-Naggar's (2013) belief about the public's negative attitude toward people with mental illness. This alone is an issue because if these student-athletes feel as though they cannot share their struggles, they are "living in the shadows" and suffering. It is up to the individuals who oversee those student-athletes' college years to

encourage the student-athletes to openly share their needs, concerns, and pains without retribution or fear that someone is going to deem them weak.

Future Research

This study encouraged the opportunity to explore mental health and specific disorders in the student-athlete population; however, there is justification for new exploration in the area of student-athlete mental health. Future research is needed to address the mental health issues that are prevalent in the student-athlete population. This pilot research study provided only a glimpse of the significance that research of this phenomenon is needed to explore the mental health needs of student-athletes.

Mental health disorders affect about 44 million adults in the United States (NAMI, 2015; SAMSHA, 2014). Substance abuse affects, 22 million individuals over the age of 18. Hunt & Eisenberg (2010) reported that mental health issues are increasing in the college student population. Cleary et al. (2011) mentioned that mental illness has increased to about 39% among college students, while Blanco et al. (2008) suggested that 50% of the general college student population have admitted to a psychiatric disorder. Moreover, Watson & Kissinger (2007) indicated that 10-15% of college student athletes suffer from psychological issues that could warrant therapeutic help. However, the true percentage of student-athletes suffering from mental health disorders is unknown (Noren, 2014). Further research is necessary to identify a true representation of the number of student athletes who struggle with symptoms of mental health disorders such as anxiety, depression, suicidal behavior, and substance abuse, as some research suggests that the demands of being both a student and an athlete puts the student-athlete at greater risk for increases in symptoms associated with mental health disorders (i.e. Etzel, 2006; Kamm, 2008; Watson & Kissinger, 2007).

Forty-four percent of student-athlete respondents in this research study admitted to having symptoms associated with one of the four disorders: anxiety, depression, suicidality, and substance abuse, prior to their interaction with their head coach. Therefore, other factors may have triggered symptoms associated with anxiety, depression, suicidal behavior, or substance abuse. Future research could be beneficial in targeting specific stressors that lead to disorders such as substance abuse and other mental health problems in student-athletes.

More research is also needed to explore other disorders that could be prevalent in the student-athlete population. Donohue, Pitts, Gavrilova, Ayarza, & Cintron (2013) asserted that student-athletes tend to have a higher incidence of substance abuse than the general population. However, the authors also indicated that there is a lack of substance abuse research in the student-athlete population. Substance abuse is not the only area of concern. There are other disorders such as bipolar disorder, attention deficit hyperactivity disorder, and autism spectrum disorders that warrant future study. Due to the lack of research on student-athlete mental health in general (Beauchemin, 2014; Donohue et. al, 2013), more inquiry is needed to continue to increase knowledge in this area so that student-athletes have the resources needed to aid them in their growth as stable, well-rounded individuals.

Another area for future study is identifying ways to provide the resources needed to address mental health issues in the student-athlete population. Beauchemin (2014) noted that college student athletes have always been underrepresented in help-seeking behaviors. This could be due to the perspective that student-athletes are considered superhuman (Etzel, 2006; Gill, 2008; Neal et al., 2015), and with the stigma attached to mental health issues, many student-athletes do not report symptoms associated with mental health issues. Kamm (2008) also posited that relatively little attention has been paid to the use of sports psychiatrists and professionals by

athletes despite the sometimes higher prevalence of mental health disorders among this population. These areas, if addressed, may provide a path to minimizing the impact that substance abuse and other mental health issues have on the student-athlete.

If this study was replicated on a larger scale with a larger sample size by engaging multiple universities, in multiple divisions such as Division I and Division II, a more representative sample size could possibly change the findings indicated in this study. A larger sample size would be more representative of the student-athlete population in this country. Additionally, there could be possible indications of whether Division I student-athletes experience more symptoms associated with their head coaches' leadership behaviors than their Division II counterparts. Ultimately, there could be a stronger relationship identified between the student-athletes' perception of their coach's leadership behaviors' impact on their mental health. There are 460,000 student-athletes in the United States (NCAA, 2015). Based on the number of people who suffer from mental illness in this country, it might be suggested that there is at least the same percentage of student-athletes struggling with symptoms associated with anxiety, depression, suicidal behavior, and substance abuse, if not more (Kamm, 2008).

In this research, the sample size was skewed, as 85% of the sample population were women while only 15% were men. If the study was replicated with more males and an equal number of female student-athletes, there would be more conclusive evidence regarding the true impact of mental health issues within the student-athlete population. There could also be some indication of gender differences in not only the perception of head coach's leadership behaviors, but the impact on the student-athletes' mental health.

For research studies to have the kind of effect necessary to impact change within the student-athlete population, and address the mental health needs of this unique population,

stakeholders must openly acknowledge the importance of this difficult subject. More research, including qualitative studies, could help to identify constructs that might accentuate the relations between coaching leadership and mental health, develop a more complex model to test, reduce the stigma attached to symptoms associated with mental health and help to decrease the likelihood that student-athletes' suffer in silence.

Conclusion

Mental health issues are quite prevalent in our society and communities (National Alliance on Mental Illness [NAMI], 2015). The biopsychosocial model and the social support theory utilized in this research study provided evidence that mental health disorders do not discriminate when it comes to affecting individuals in this country. Factors such as genetics, environment, social interaction, support, or lack of support can be major contributors to the increase or decrease in symptoms associated with anxiety, depression, suicidal behavior, and substance abuse. The exploration of student-athletes' perception of their head coach's leadership behavior was the particular factor that was scrutinized in this research study. Student-athletes, though perceived to be less vulnerable, are not immune to the very real struggles of dealing with symptoms associated with mental health (Etzel, 2006; Gill, 2008). They are faced with challenges and pressures that are pronounced by the nature of being young adults transitioning into their role as adults with the additional role of athlete, which presents its own set of demands.

The results of the SAM in this study provided some evidence of the vulnerability of the student-athletes' mental health concerns. A significant number of student-athletes did not answer crucial questions like, "have you had thoughts of suicide, have you made an attempt to harm yourself; have you had more than four drinks daily and use medications that are not prescribed by your own doctor, (i.e. Percocet, Xanax, Hydrocodone), or use drugs like

Marijuana, Ecstasy, Cocaine, Crack, Heroin, Crystal Meth, Hallucinogens (like LSD)." These students could have been reluctant to answer these questions for fear of retribution or consequences despite the anonymity of the study; however, it is quite possible that the stigma that is attached to having mental health symptoms was a primary reason for many students not to answer those critical questions. As Al Naggar (2013) indicated, due to the stigma that is attached to mental health issues and disorders, millions of people do not seek treatment. This also reinforces E.A. Storch et al. (2005) point that student-athletes may not seek help for their mental health issues.

The head coach who is charged with the student-athletes' care should recognize the impact and influence his or her coaching leadership behavior has on these young people. Thus, they should do everything they can to make sure they are always operating in the best interest of the student-athlete's overall well-being. The head coach can do this by engaging in self-evaluation of his or own leadership styles and ability. If he or she performs their own leadership evaluation and at least has a baseline of their leadership ability, the head coach will know, and hopefully educate him or herself, to be the best coach while using the best techniques when necessary. The five leadership behaviors studied in this research, training and instruction, democratic, autocratic, social support, and positive feedback have their pros and cons. However, if the head coach can learn and implement each of these techniques when the opportunity presents itself to each student-athlete, he or she will clearly understand the influence and power he or she has and the crucial role his or her relationship plays in developing strong, successful, emotionally and physically stable young men and women.

Universities across the nation should make a conscious effort to preserve the mental health and well-being of the student-athletes. For many universities, student-athletes are the

bedrock of the institution; therefore, is incumbent on these schools to support student-athletes' psychological and emotional health by making sure all resources are available to address mental health needs. Education must be openly provided to help reduce the stigma associated with mental health disorders with the hope of reducing any suffering or stress a student-athlete may encounter. Organizations such as the NCAA have already begun a paradigm shift toward the visibility and focus of mental illness in college athletics, (DeCaro, 2013; Kalbrosky, 2012; Martin Wrenn, 2012; Medcalf, 2012; Noren, 2014; Siebert, 2012); however, more work needs to be done. The NCAA should continue to encourage sports medicine professionals, athletic trainers, student affairs, administrators, counselors, and athletic departments to keep their focus on issues of mental health in college sports. Hopefully, all head coaches, and athletic personnel will begin to appreciate their influence, educate themselves, and acknowledge the mental health issues that may affect their student-athletes. It is imperative that the student-athletes who were willing participants in this type of study have some hope that attention is being paid to this vital subject and that there can be help available if needed.

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Appendix A: Leadership Scale for Sports (LSS)
Dimensions

Training and instruction (item #1 to #13)

Democratic behavior (item #14 to 22)

Autocratic behavior (item #23 to 27)

Social Support (item #28 to 35)

Positive feedback (item #36 to 40)

Note: Add the item score to obtain a score for that dimension. Divide by the number of items per dimension to get a score out of 5

Leadership Scale for Sports (LSS)

Using the following scale, please circle a number from 1 to 5 to indicate your level of agreement with each of the statements regarding your COACH.

1 **Never**	**2** **Seldom** 25% of the time	**3** **Occasionally** 50% of The time	**4** **Often** 75% of The time	**5** **Always**

My Coach…

	Never				Always
1. Sees to it that every athlete is working to his/her capacity.	1	2	3	4	5
2. Explains to each athlete the techniques and tactics of the sport.	1	2	3	4	5
3. Pays special attention to correcting athlete's mistakes.	1	2	3	4	5
4. Makes sure that his/her part in the team is understood by all the athletes.	1	2	3	4	5
5. Instructs every athlete individually in the skills of the sport.	1	2	3	4	5
6. Figures ahead on what should be done.	1	2	3	4	5
7. Explains to every athlete what he/she should and what he/she should not do.	1	2	3	4	5
8. Expects every athlete to carry out his assignment to the last detail.	1	2	3	4	5
9. Points out each athlete's strengths and weaknesses.	1	2	3	4	5
10. Gives specific instructions to each athlete as to what he/she should do in every situation.	1	2	3	4	5
11. Sees to it that the efforts are coordinated.	1	2	3	4	5
12. Explains how each athlete's contribution fits into the total picture.	1	2	3	4	5
13. Specifies in detail what is expected of each athlete.	1	2	3	4	5
14. Asks for the opinion of the athlete's on Strategies for specific competitions.	1	2	3	4	5
15. Gets group approval on important matters before going ahead.	1	2	3	4	5
16. Lets his/her athletes share in the decision making.	1	2	3	4	5
17. Encourages athletes to make suggestions for ways of conducting practice	1	2	3	4	5
18. Lets the group set it's own goals.	1	2	3	4	5
19. Lets the athletes try their own way even if they make mistakes.	1	2	3	4	5
20. Asks for the opinion of the athletes on important coaching matters.	1	2	3	4	5
21. Lets athletes work at their own speed.	1	2	3	4	5
22. Lets the athletes decide on the plays to be used in a game.	1	2	3	4	5

23. Works relatively independent of the athletes.	1	2	3	4	5
24. Does not explain his/her actions.	1	2	3	4	5
25. Refuses to compromise a point.	1	2	3	4	5
26. Keeps to himself/herself.	1	2	3	4	5
27. Speaks in a manner not to be questioned	1	2	3	4	5
28. Helps the athletes with their personal problems	1	2	3	4	5
29. Helps members of the group settle their conflicts	1	2	3	4	5
30. Looks out for the personal welfare of the athletes	1	2	3	4	5
31. Does personal favors for the athletes	1	2	3	4	5
32. Expresses affection he/feels for his/her athletes.	1	2	3	4	5
33. Encourages the athlete to confide in him/her	1	2	3	4	5
34. Encourages close and informal relations with the athletes.	1	2	3	4	5
35. Invites athletes to his/her home.	1	2	3	4	5
36. Compliments an athlete for his performance in front of others.	1	2	3	4	5
37. Tells an athlete when he/she does a particularly good job	1	2	3	4	5
38. Sees that an athlete is rewarded for good performance	1	2	3	4	5
39. Expresses appreciation when an athlete performs well.	1	2	3	4	5
40. Gives credit when credit is due	1	2	3	4	5

Appendix B: Symptom Assessment Measure-Adult

Instructions: The questions below ask about thoughts and behaviors that might have bothered you within the past 3 months. For each question, choose a number between 0 and 100 that best describes how much (or how often) you have been bothered by each problem during the **past THREE (3) MONTHS.**

1. Feel nervous or frightened, or on edge
2. Avoid situations that make you anxious
3. Worry too much about different things
4. Have you had little interest or pleasure doing activities
5. Feel down, depressed, hopeless, or helpless
6. Crying episodes frequently
7. Have difficulty sleeping
8. Have thoughts of harming yourself
9. Made an attempt to harm yourself
10. Drink More than 4 alcoholic beverages daily
11. Use medications that are not prescribed by your own doctor, (i.e. Percocets, Xanax, Hydrocodone), or use drugs like Marijuana. Ecstasy, Cocaine, Crack, Heroin, Chrystal Meth, Hallucinogens (like LSD)

Demographic Questions

1. What is your gender?
2. How old are you?
3. Are you currently participating in your sport in-season or are you currently in your off-season?
4. Have you interacted with your coach for at least 3 months?
5. Have you had any of the identified symptoms prior to the past 3 months?
6. Have you noticed a change such as an increase or decrease in the identified symptoms within the past 3 months?
7. Do you feel your coach's leadership behavior had any impact on the exacerbation (increase) or alleviation (decrease) of symptoms? If so, please explain.

Appendix C: Informed Consent

Hello, my name is Joan Thurston and I am a doctoral student at the University of North Florida. I am conducting a study in order to investigate the relationship between a coach's leadership behavior and symptoms that are associated mental health disorders such as anxiety, depression, suicidality, and substance abuse in college student athletes. Specifically, we are exploring if there is an increase or decrease of self-reported symptoms associated with the mental health disorders listed above. To participate in this research study, you must be at least 18 years old and have had interaction with your coach at least 3 months.

If you decide to participate in this study, we will ask you to complete an electronic survey that asks questions about your coaches' leadership behaviors and symptoms associated with anxiety, depression, suicidal behavior, and substance abuse you may encounter. We expect that participation will take about 30 to 45 minutes of your time. Complete instructions will be provided in order to complete the survey online. Completing the survey online allows you the convenience and privacy to participate in the study as your responses will be anonymous and only authorized personnel will have access to your responses. No faculty or coaching staff will have access to data and no research personnel will be able to link your responses to your identity

There will be no financial compensation to participate in this study, however the benefits of this research are that college student athletes will learn to identify different types of pressure, such as their coach's leadership behavior can impact their emotions, their functioning, their performance, well-being and seek help. There is no direct benefit to you, however your responses will help future students seek help and possibly impact future policy.

Although you will be asked sensitive questions, there is minimal risk associated with this study as there is no identifiable information that can be linked with any student participating in the research study.

Should you feel as though your self-reported symptoms are affecting your level of functioning or performance, you should seek help from your coach, athletic trainer, a mental health professional such as a therapist or social worker at the UNF's counseling center, a community mental health center such as Mental Health Resource Center in Jacksonville, or through a private professional identified by their insurance plan, or Psychologytoday.com, a website that provides local mental health professions with specific specialties.

Your participation is 100% voluntary and there will be no penalty or consequences of any kind if you choose not to participate. Also, you can withdraw at any point during the research study. You will have the ability to print a copy of this consent form for your records.

If you have any questions or concerns about this research project, please feel free to contact me, the principal investigator, or Co-Chairs Dr. Jennifer Kane and Dr. Luke Cornelius.

Joan Thurston [redacted] Dr. Luke Cornelius [redacted] Dr. Jennifer Kane [redacted]

If you have questions about your rights as a research participant or if you would like to contact someone about a research-related injury, please contact the chair of the UNF Institutional Review board by calling (904) 620-2498 or emailing **irb@unf.edu**.

If you agree to participate in this research please click Next. By clicking Next you also acknowledge that you are at least 18 years old and eligible to participate in this study.

If you do not wish to participate, you can close your browser.

Appendix D: Recruitment Letter

Dear Students,

Mental Health and wellbeing is an important aspect of our lives. Though most think about health from a physical standpoint, our mental health is as important if not more so. I am conducting a study that attempts to identify a connection between coaching leadership behavior/style and mental health symptoms of anxiety, depression, suicidal behavior, and substance abuse.

The purpose of this study is to gain a new perspective on the impact coaching can have on student-athletes and develop and implement appropriate policies, programs, and interventions to address any mental health symptoms a student-athlete may have.

Your participation is crucial in helping achieve the goals identified. There will be an informational session on March 30th at 6:00pm in the computer lab, Room 2500 in Building 57. Student-athletes will have the opportunity to participate in the study and complete the survey at the informational session. Participation in the study is voluntary and anonymous, and there will be no coach or athletic personnel involved during the informational session or in the actual study. Thank you for your time, attention and anticipated participation.

Regards,

Joan Thurston, LMHC
University of North Florida Doctoral Candidate

Appendix E: Email Cover Letter

Dear Students,

Mental health and wellbeing is an important aspect of lives. Though most think about health from a physical standpoint, our mental health is as important if not more so. I am conducting a study that attempts to identify a connection between coaching leadership behavior/style and mental health symptoms of anxiety, depression, suicidal behavior, and substance abuse.

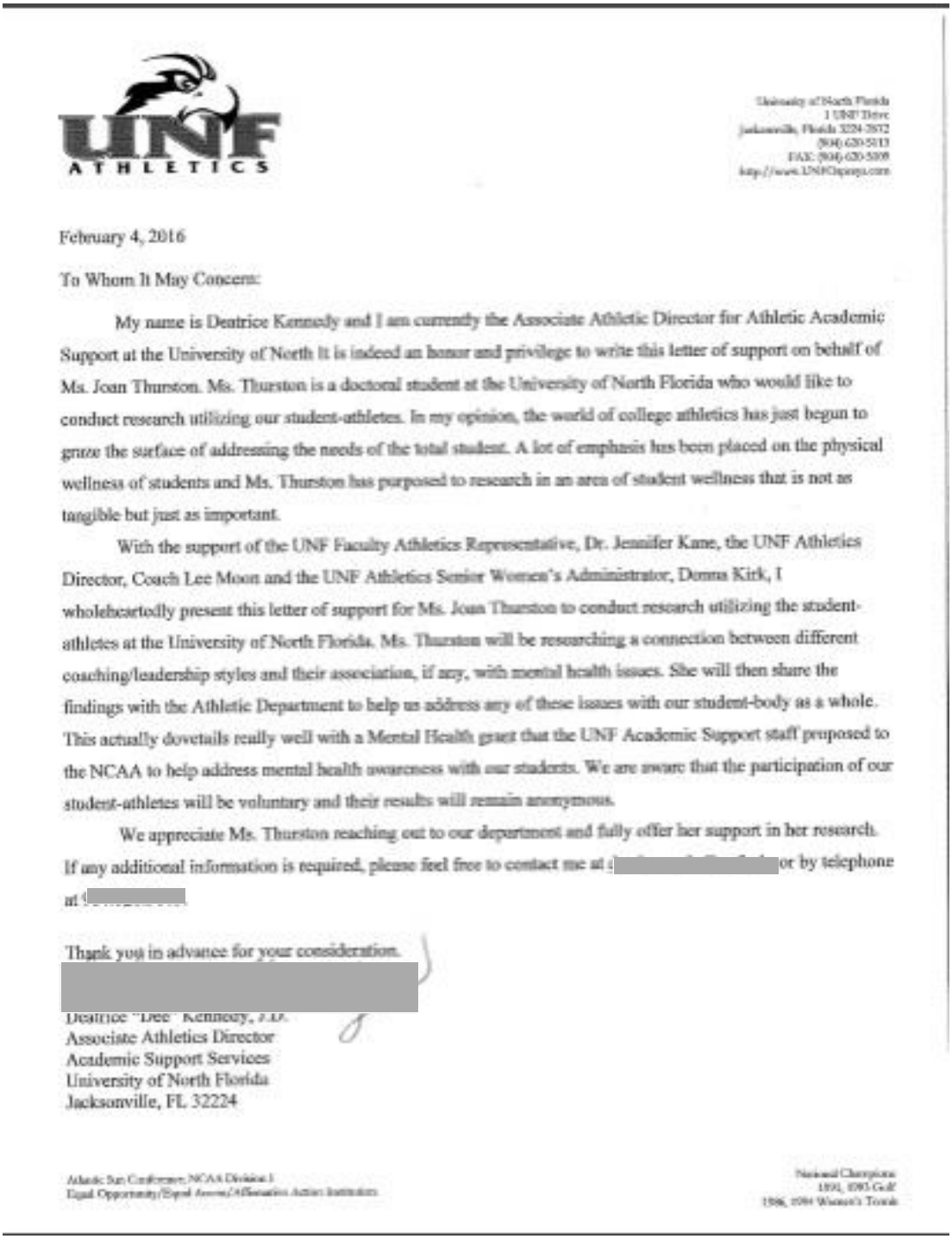
The purpose of this study is to gain a new perspective on the impact coaching can have on student-athletes and develop and implement appropriate policies and programs to address any mental health symptom a student-athlete may have. Your participation is crucial in helping achieve the goals identified. As this is a follow up to the informational session invitation, if you have participated in the study at the informational session, please DO NOT complete the survey again.

For those who were unable to attend or did not complete the survey during the information session, you can click on the link provided and it will take you directly to the informed consent and the survey. The study should take 30 to 45 minutes of your time. The survey will be available until April 14th, 2016. Please complete it as soon as possible. Thank you in advance for your participation.

Regards,

Joan Thurston

Appendix F: UNF Letter of Support



UNF ATHLETICS

University of North Florida
1 UNF Drive
Jacksonville, Florida 32224-2672
(904) 620-5113
FAX: (904) 620-5109
http://www.UNFOspreys.com

February 4, 2016

To Whom It May Concern:

My name is Deatrice Kennedy and I am currently the Associate Athletic Director for Athletic Academic Support at the University of North It is indeed an honor and privilege to write this letter of support on behalf of Ms. Joan Thurston. Ms. Thurston is a doctoral student at the University of North Florida who would like to conduct research utilizing our student-athletes. In my opinion, the world of college athletics has just begun to graze the surface of addressing the needs of the total student. A lot of emphasis has been placed on the physical wellness of students and Ms. Thurston has purposed to research in an area of student wellness that is not as tangible but just as important.

With the support of the UNF Faculty Athletics Representative, Dr. Jennifer Kane, the UNF Athletics Director, Coach Lee Moon and the UNF Athletics Senior Women's Administrator, Donna Kirk, I wholeheartedly present this letter of support for Ms. Joan Thurston to conduct research utilizing the student-athletes at the University of North Florida. Ms. Thurston will be researching a connection between different coaching/leadership styles and their association, if any, with mental health issues. She will then share the findings with the Athletic Department to help us address any of these issues with our student-body as a whole. This actually dovetails really well with a Mental Health grant that the UNF Academic Support staff proposed to the NCAA to help address mental health awareness with our students. We are aware that the participation of our student-athletes will be voluntary and their results will remain anonymous.

We appreciate Ms. Thurston reaching out to our department and fully offer her support in her research. If any additional information is required, please feel free to contact me at [redacted] or by telephone at [redacted].

Thank you in advance for your consideration.

[redacted]
Deatrice "Dee" Kennedy, J.D.
Associate Athletics Director
Academic Support Services
University of North Florida
Jacksonville, FL 32224

Atlantic Sun Conference; NCAA Division I
Equal Opportunity/Equal Access/Affirmative Action Institution

National Champions
1993, 1995 Golf
1996, 1998 Women's Tennis

VITA

JOAN THURSTON, Ed.D., LMHC

EDUCATION

Doctor of Education in Educational Leadership April 2017
University of North Florida, Jacksonville, FL

*Dissertation title: "*Student Athlete Perception of Coaching Leadership Behaviors' Influence on Mental Health Symptoms Associated with Anxiety, Depression, Suicidality, and Substance Abuse
Committee: Luke Cornelius, Ph.D. (Chair), Jennifer Kane, Ph.D. (Co-Chair), Joel Beam, Ed. D., Daniel Dinsmore, Ph.D.

Master of Science in Mental Health Counseling December 1996
Nova Southeastern University, Ft. Lauderdale, FL

Bachelor of Science in Psychology June 1994
University of Miami, Coral Gables, FL

RESEARCH INTERESTS

- Investigations to improve the mental health and well-being of student athletes in higher education.

RESEARCH EXPERIENCE

Metrotown July to August 2012
Department *of Public Health, Brooks College of Health, University of North Florida*

- Engaged in Metrotown research project within the University of North Clinical Mental Health Counseling
- Assisted in facilitating focus groups with local Duval County high school students
- Engaged in the transcription of focus group responses

PROFESSIONAL LICENSE AND CERTIFICATION

- Licensed Mental Health Counselor, *State of Florida* May 2004 to Present
- State Qualified Clinical Supervisor, *State of Florida* September 2012
- Licensed Professional Counselor, *State of New Jersey* November 2001 to May 2004

CLINICAL EXPERIENCE

New Directions Behavioral Health, *Jacksonville, FL* January 2014 - Present
Case Manager

- Engage in case management services to mentally ill individuals to reduce the risk of admission and readmission to higher levels of care. Provide explanation of benefits and guidelines for medical necessity criteria for admission to all levels of care including inpatient hospitalization, residential treatment, partial hospitalization, intensive outpatient, and outpatient services. Manage more than 70 members. Participate in

multidisciplinary and integrated care for Florida Blue Cross Blue Shield members while working collaboratively with hospitals, utilization management, nurse case managers, psychiatrists therapists, and other community resources across the State of Florida to assist member in meeting their mental health and physical needs.

Mental Health Resource Center, *Jacksonville, FL* July 2007 - May 2012
Mental Health Professional

- Facilitated individual, couples and group counseling to assist individuals with learning appropriate coping strategies to deal with their mental illness. Provided prevention and education for individuals suffering with severe mental illness. Assessed patient needs with the use of psychosocial and comprehensive assessments while initiating the development of realistic, measurable, and attainable treatment goals, and crisis intervention. Diagnosed mental health disorders based on DSM Manual. Worked in partnership with community resources such as hospitals, the legal system and other not for profit organizations. Participated in accreditation audits with State funding agencies and accreditation sources such as the Department of Children and Families, and the Joint Commission for the Accreditation of Health Organizations

Mental Health Center of Jacksonville, *Jacksonville, FL* April 2008 - January 2011
Emergency Services Evaluator

- Conduct intake screenings and assessment for individuals in mental health crisis or in Baker Act status. Made referrals to appropriate community resources. Secure authorization with insurance companies. Work together with multidisciplinary team of professionals including psychiatrists, nurses and other mental health professionals

American Therapeutic Corporation, *Ft. Lauderdale, FL* July 2004 - Nov 2005
Clinician

- Facilitated individual and group therapy for dual diagnosed individuals. Conducted substance abuse group for individuals in the drug court program. Performed assessments for eligibility of partial hospitalization program

Children's Home Society, *Miami, Florida* September 2003 - July 2004
Clinician

- Offered in-home individual, family, and group therapy to children in the foster care system. Performed psychosocial assessments, intakes, and clinical diagnosing. Engaged in treatment and discharge planning. Facilitated crisis intervention procedures and strategies. Worked with parents to achieve reunification with children. Collaborated with child study teams, schools, Department of Children and Families, and other community entities to determine appropriate placement

Mountainside Hospital, *Montclair, New Jersey* December 2001- June 2003
Child/Adolescent Clinician

- Provided individual, family, and group counseling. Psychosocial assessments, intakes, and clinical diagnosing. Case documentation. Provided utilization management to secure pre-authorization and authorization for treatment

MANAGEMENT EXPERIENCE

Aging True, Self-Directed Care, *Jacksonville, FL* May 2012 - January 2014
Program Manager

- Managed program with more than 200 clients and 7 Life Coaches. Supervised one million-dollar budget. Created performance and productivity measures for program. Developed statistical evidence of program efficiency, established and implemented program policy and procedures. Facilitated quality assurance and compliance with State and Federal guidelines

Creative Solutions Therapeutic Services, *Jacksonville, Fl.* August 2007 - December 2009
Sole Proprietor/Therapist

- Established private practice and built clientele through marketing, advertisement, and networking. Provided clinical counseling services to adults and children

American Therapeutic Corporation, *Fort Lauderdale, Fl.* November 2005 - June 2007
Assistant Director/Director

- Supervised 15 employees while engaging in management of performance, caseloads, daily operations and operational budget. Worked in partnership with state agencies to ensure compliance with State and Federal rules and regulations and other accreditation sources

Catholic Charities Diocese of Metuchen, *Metuchen, NJ* December 2000 - November 2001
Home Study Supervisor

- Supervised six home study employees. Provided individual and group supervision to home study specialists. Conducted pre-service, in-service and orientation training. Collaborated with New Jersey's Bureau of Licensing for the licensing, reevaluation, and maintenance of foster homes and families. Completed annual, quarterly, and monthly contract reports for Division of Youth and Family Services. Implemented state regulations and laws pertaining to Catholic Charities treatment homes

PSYCHOEDUCATIONAL PRESENTATIONS

Facilitator March, 2016
Athletic Department, University of North Florida, Jacksonville

- Engaged in informational session that provided education regarding mental health symptoms within the student-athlete population.

Facilitator September, 2015
New Directions Behavioral Health/Florida Blue Cross Blue Shield, Jacksonville

- Facilitated in service training to case managers, nurse case manager on bipolar disorder diagnosis symptomology, etiology, treatment and interventions to reduce exacerbation of symptoms.

Facilitator September 2013
School of Social Work, University of North Florida, Jacksonville

- Facilitated class discussion regarding the importance of Mindset

Facilitator May 2013
Florida Department of Health, Jacksonville

- Facilitated group discussion on the importance of managing mental health issues with community resources

PUBLICATIONS

Thesis "in preparation": Student athlete perception of coaching leadership behaviors influence on symptoms associated with depression, anxiety, suicidal behavior, and substance abuse.

PROFESSIONAL ASSOCIATIONS

- National Behavioral Health Organization
- Florida Counseling Association
- Florida Association of Counselor Supervisors
- Case Management Society of America