

**The Stigma Surrounding Mental Health Disorders in Collegiate Athletes:
A Synthesis of the Research Literature**

A Synthesis Project

Presented to the

Department of Kinesiology, Sports Studies, and Physical Education

SUNY Brockport

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Education

(Athletic Administration)

By

Holly Buccheri

December 23, 2021

SUNY BROCKPORT
BROCKPORT, NEW YORK

Department of Kinesiology, Sport Studies, and Physical Education

The Stigma Surrounding Mental Health Disorders in Collegiate Athletes

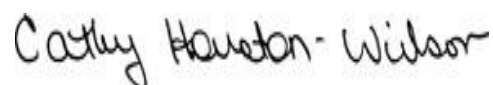


12/23/2021

Instructor Approval

Date

Accepted by the Department of Kinesiology, Sport Studies, and Physical Education, SUNY Brockport, in partial fulfillment of the requirements for the degree Master of Science in Education (Physical Education).



12/23/2021

Chairperson Approval

Date

Abstract

Mental health issues are a growing problem for many individuals. For student-athletes, the stigma that comes from seeking help is especially difficult. Student-athletes fall under three subgroups this being “emerging adults” ages 18-24, second enrolled in secondary education and third student-athletes compete in high-level sport adding unique stressors their non-athletic peers do not have. Each one has its own risk for developing a mental health issue. As student-athletes, they are under more stress than their non-athletic counterparts. Research has shown that public and personal stigmas plays a key role in why individuals will not seek help. Primary reasons for not seeking therapy are the stigmas of being seen when seeking counseling, and others assuming an underlying personal weakness not expected of athletes. Researchers are beginning to measure these stressors, identify factors involved with stigmas, and understand help-seeking. With the use of new emerging computer technologies, student-athletes are being offered specialized interactive software programs to combat stigmas and allow a safe environment so that anonymity is not compromised. Athletic staffs are slowly becoming more involved in mental health issues and should receive mental health training to assist their athletes. The purpose of this synthesis was to investigate the role that stigmas have on mental health issues with student-athletes.

Keywords: stigma, college-athletes, seeking help, attitude, coaches, mental health literacy, athletes

Acknowledgements

Would like to thank my friends and family for helping me through grad school. Including my professors and especially Dr.Hopple since she was the point person for this synthesis. I would like to thank my grandparents for the added support and guidance on this synthesis.

Table of Contents

Title Page..... 1

Signature Page..... 2

Acknowledgements..... 3

Table of Contents..... 4

Abstract..... 5

Chapter 1..... 6

Chapter 2..... 14

Chapter 3..... 19

Chapter 4..... 38

References..... 48

Appendix A..... 52

Chapter 1: Introduction

Mental health disorders are a major disabling problem in the U.S. population with numbers that continue to increase. Common disorders include illnesses such as severe depression, anxiety, and eating disorders. These mental health disorders greatly impact American society. According to the 2019 National Institute of Mental Health Disorders survey, the cost of serious mental illnesses to the American economy alone was estimated to be over 317 billion dollars (American Psychiatric Association, 2021). Of that total, it is estimated that 193 billion dollars was due to lost earning potential, 100 billion dollars spent in health care costs, and 24 billion dollars provided in disability benefits. The cost of mental illness ranked at the top of the list compared to all other illnesses, with heart disease ranked second at 150 billion dollars, and cancer third.

According to NAMI (2019), 51.5 million adults 18 or older is living with a mental illness, this number represents 20.6% of the US population, that is nearly one in five adults. It was also estimated that young adults between 18 and 25 have higher rates of mental illness -- 29.4% -- compared to 25% for adults aged 26 to 49. According to Solmi et al. (2021), after using a meta-analysis to examine 192 studies from around the world, it was concluded that the global onset age for developing a mental illness is at 14, 18 and 25 years. One third of the studies found that most individuals' first mental disorder occurred before the age of 14. By 18 years, nearly 48.4% of individuals had developed a mental illness, and before 25 years the statistic jumps to 62.5%. Mental illness can also decrease an individual's life by 10 to 15 years compared to those without a mental illness. These statistics demonstrate the early onset of mental illness. It is important to remember that the sooner the problem is recognized, diagnosed, and treated, the better the prognosis for improvement. Early intervention can potentially help, prevent or alter the course of

the mental illness. Unfortunately, 35% of those with a serious mental illness do not seek treatment. Furthermore, suicide in response to depression is also one of the leading causes of death in adolescents and adults ages 15-24 years. (Galaif et al., 2007)

It is important to understand that mental health issues greatly disrupt one's daily life. This leads to the question as to why approximately one third of individuals with mental illness do not seek therapy. Financial concerns are most frequently provided as a reason for not receiving counseling services. Other than financial reasons, there is a host of other contributing factors as to why individuals do not seek treatment. These include not knowing where to seek help, being unaware that something can be done about their illness, being too busy and having no time for therapy, believing they can handle the problem without treatment, and/or that they might be committed or required to take drugs (Substance Abuse and Mental Health Services Administration Association, 2021). Another common factor that plays a very important role in whether or not individuals will seek treatment for their mental illness is that of “stigmas.”

The classic definition of stigma “refers to negative thoughts, feelings, and behaviors toward individuals or groups that possess characteristics or engage in behaviors that are viewed as unacceptable by the wider society” (Bu et al., 2020). A few examples of stigma in the general population include thoughts that people hold about those individuals who are unemployed, incarcerated or previously incarcerated, drug addicts or those in drug rehabilitation. Regarding mental illness, common stigmas may include both what individuals think of themselves or what they think others may think of them if they seek help -- for example, being embarrassed if others knowing that they are being seen by a therapist (Bu et al., 2020; Hilliard et al., 2019; Kaier et al., 2019).

On college campuses, students are not immune from mental health issues. Mental health concerns are experienced by individuals found in all subgroups of the college student population, e.g., those of differing genders, race, and ethnicity. Stigmas impact members of all of these groups. However, the stigma may be much worse for a particular subset of college students the student-athletes. These athletes may be labeled as the “dumb jocks” and many times are assumed to lack motivation for academics, to not be very bright, and are privileged. Many may also be seen as “having it all” with better course schedules, choice courses, and lenient teachers. At first glance, it would appear that student-athletes have very little reason to develop a mental illness. In reality, however, this is not the case.

College athletes are under a great deal of pressure. They take on two very distinct and separate roles as an academic student and the other as an athlete. They are driven and dedicated to the team. They must manage a busy schedule that includes prepping for games, playing at their best, getting schoolwork completed, and meeting numerous deadlines to name just a few. The strain of these demands impacts many athletes, causing both personal and emotional problems that take a toll on them mentally and physically.

Even though athletes are viewed by others as being mentally and physically tough, if those same athletes seek mental health counseling, they may be seen as weak and viewed in a negative light. This is especially true as many athletes, coaches and teammates place a stigma on the troubled athlete. For example, they may mistakenly buy into the assumption that “all it takes is will power and a drive to overcome it.” The list of reasons can vary from athlete to athlete why they do not seek help, but the result all too often is the same. Student-athletes, when confronted with a mental health issue, are likely to find themselves facing it alone.

Unfortunately, untreated mental illness for athletes can be unrelenting. Performance is affected. These athletes are no longer able to live up to their own personal expectations along with those of their coaches and teammates. This lack of performance or ability to do what is expected of them may manifest itself in making costly mistakes, losing a scholarship, and/or losing playing time. These issues have enormous implications for student-athletes, especially for those who look to continue playing past their college career.

From information cited earlier, a vast majority - approximately 50% - of all mental illnesses begin by the age of 14 years, and 75% by the age of 24 years of age (NAMI., 2021) . Most student-athletes' range in this age group, i.e., 18 to 24 years. Based on these statistics, student-athletes are statistically more likely to develop mental illness than those individuals who are not a part of college athletics the general population. According to Wolanin et al. (2015), most college athletes immerse themselves into the culture that surrounds their desired sport. When their sports career ends, whether it be through graduation or an injury, it can be associated with maladaptive coping strategies, such as depression, anxiety, increased hostility, anger, and substance abuse. Therefore, while some athletes can transition with ease, others struggle with their day-to-day lives when routines are disrupted.

Coping strategies developed by student-athletes are formed under stress in a multitude of ways and for many different reasons. Internally, this can lead to anxiety, negative thought patterns, fatigue, cognitive issues and more for these student-athletes (Chandler, et al.,2020). Additional external factors that add to stressors to college athletes can be coaches, teammates, schoolwork, and volunteer requirements. These are just more factors that are added to being a college student-athlete. If athletes have the ability to recognize signs of distress related to mental health issues and become aware of these thoughts, that is one of the most important first steps to

correcting maladaptive behaviors. If individuals are aware of their actions or thoughts, they can be mindful and begin questioning them. Being personally aware of the problem, however, is only one part of the battle.

Unfortunately for some college athletes who struggle with mental health disorders, the associated stress and pressures that their condition has on them is too much to bear. An eight-year longitudinal study conducted from 2003 to 2012 showed that 7.3% of all student-athletes' deaths were through suicides (Mast & Gentile, 2019). Findings from the American College of Sports Medicine (ACSM) in 2015 showed that rates of depression in student-athletes may range from a low of 15.6% to as high as 21%. Based on this information, that means one out of every five college athletes may struggle with depression. Wolanin et al. (2015) hypothesized two factors for this statistic. The first is that athletes deal with more stress than non-athletes and have reported higher levels of alcohol use, depression symptoms, and social anxiety. Many athletes also reported having less social support than their nonathletic peers. Wolanin et al. (2015) also found that a large majority of female athletes experienced more depression symptoms and social anxiety when compared to males, and received less support than male athletes, male non-athletes, and female non-athletes

With approximately 570,000 student-athletes in the United States and with the demand of time, effort, and stigma issues surrounding college athletes, this population is both underserved and underrepresented relative to mental health issues. Thus, there is an increased need for research into the importance of reducing stigma and for current and former college athletes to bring awareness about this problem that many have faced.

Statement of Problem

Issues surrounding mental health are a growing and timely topic, and college student-athletes are no exception to having mental health issues. Presently, an athlete reaching out for help is seen as a sign of weakness or not being “mentally tough.” This is just one of the many stigmas surrounding mental health issues and how these affect student-athletes' abilities to seek help or take advantage of resources to combat mental health issues. Being able to understand the effect which mental health stigmas have on college athletes will hopefully provide these students with increased opportunities to receive the treatments necessary for their mental illnesses.

Purpose of Synthesis

The purpose of this synthesis is to investigate the stigma surrounding mental health disorders in college athletes.

Operational Definitions

1. Stigma- “refers to negative thoughts, feelings, and behaviors toward individuals or groups that possess characteristics or engage in behaviors that are viewed as unacceptable by wider society” (Bu et al., 2020)
2. Seeking Help- “Is an adaptive coping process that is the attempt to obtain assistance to treat mental health issues” (Bu et al., 2020)
3. Mental health literacy- “knowledge and beliefs about mental disorders, which facilitate their recognition, management or prevention” (Bu et al., 2020)
4. Non-Athlete or Non-Athletic Peer - For the purpose of this paper non-athlete or non-athletic peer refers to the population of students who are not a part of the collegiate athletics three governing agencies, Division I, II, and III. Club sports are not considered varsity teams.

5. Seeking-help or Help-seeking- “mental health problems as “an adaptive coping process that is the attempt to obtain external assistance to deal with mental health concerns” This includes both formal (e.g., health services) and informal (e.g., friends and family) sources of help” (Rickwood & Thomas, 2012)

Research Questions

The following research questions will be the primary focus explored for this literature review:

1. What are college athletes’ perceptions of the stigma surrounding mental health issues and how are they different from their non-athletic peers?
2. What type of training or resources exists to help student-athletes with mental health issues?

Limitations

1. Small sample sizes for student-athletes and non-athletes
2. Surveys showed very poor rates of return from both student-athletes and the coaching staff.
3. One study failed to identify the number of participants at each school.
4. Research studies failed to acquire sufficient data on student-athletes with different ethnicity/race
5. Lack of qualitative methods from the athletic department

Delimitations

1. All the articles used in this synthesis were peer reviewed journal articles
2. No use of systematic reviews was used in this synthesis
3. The review included articles between the years 2011-2021.

4. Peer reviewed scholarly articles focused on the mental health issue in student-athletes and how stigma creates barriers for athletes to seek help and what types of training and mental health literacy is available for coaches, athletic staff, and athletes.

Chapter 2: Methods

The purpose of this synthesis is to investigate the stigma surrounding mental health disorders in college athletes. Many library searches for relevant literature on this topic were conducted in order to obtain the information necessary to complete this synthesis. This chapter specifically details the methods used in obtaining the appropriate information for this synthesis.

Literature obtained for this synthesis project began with a search from the SUNY Brockport's Drake Memorial Library website. Research results from both the library and Google Scholar were utilized for the synthesis. The SUNY Brockport library website offers a number of databases for use in finding articles for research purposes. The use of EBSCO, Sportdiscus, PsycInfo and Psychology and Behavioral Sciences Collection were used for this search. The use of combining multiple search engines and databases resulted in thousands of articles depending on certain keywords. Various combinations of first, second, and third field options were used to narrow down the results.

Keywords for the literature search were accomplished by creating a list of words and finding alternative words that had the same meaning to help narrow down the articles as "mental health issue" is such a broad topic. The main keywords included throughout this paper were *Stigma, Mental Health, Mental Health Literacy, College Athletes, Attitude, Seeking-help and Perception*. These keywords were selected based on the best way to gather information to help answer the research questions and the purpose statement.

The first search was conducted by going to the SUNY Brockport Drake Memorial library page and clicking on Article & Journals. This was followed by using the keywords *mental health stigma in college athletics* to generate the appropriate articles for this paper. This search generated 1,864 articles. To help narrow the topic, delimitations were utilized: use of full-text

and peer reviewed scholarly articles only; selecting English as a language; and making sure the publications were between the years of 2011 and 2021. These delimiters reduced the number of articles to 1,246. From here an advanced filters were added to narrow the search by using key words in the second tab. These keywords included *seeking help, attitude, coaches, programs, mental health literacy and athletes*. Even with these new key words it was difficult to get hits with less than 300 articles. Under the word mental health various studies fall under the term. Including eating disorders, performance skills and meta-analyze where also pulled up. Some systematic-reviews provided background information for chapter one but our not approved for the critical mass article. However, looking through the references in some of the systematic reviews founding studies they mentioned where allowed.

The second search yielded the best results by using Kinesiology, Sport Studies & Phys. Ed databases on the SUNY Brockport library online page. At the Drake Memorial Library home page, clicking on the search “database by subject,” then clicking on the “Kinesiology, Sport Studies & Phys. Ed” tab, and finally, clicking on the SportDiscus database in the link box below the search bar. After clicking on SportsDiscus, EBSCOhost searched only the database of SportDiscus. Using the keywords *mental health, stigma, and college student-athletes* all in the first box yielded 18 results. After adding only journal articles from 2011-2021, 13 articles were displayed. Out of the 13 articles, six were used in the critical mass that where approved and fell under the criteria for approval. The rest of the articles fall into two categories. Some article where systematic reviews and were not a research study. The others either provided background information on the topic or going to their references list looking through to find studies that could work with this topic. All the articles were great for adding to one’s mental health literacy

but for some they did not meet the criteria or did not provide enough on the specific topic of interest.

The primary challenge faced while conducting this research was that mental health issues is an exceedingly popular topic for scholars to research. There are many different disciplines examining numerous topics dealing with mental health and examples include eating disorders, injuries, elite athletes, division I, II and III, anxiety and depression. However, in order to be able to create and write an effective synthesis to fulfill this assignment, narrowing the topic was key to ensuring that the proposed research questions and purpose statement were answered thoroughly. Mental health issues in college athletes were too broad of a question, even adding key terms such as anxiety and depression still identified too many articles to examine and effectively answer the questions. Despite some issues with narrowing the information, there were still a significant number of research articles that needed to be eliminated and still retain information and add value to any athletic program looking for ways to improve or techniques to implement. As more colleges and former athletes are looking to change the narrative of stigma there is still much knowledge to be acquired with better answers hopefully coming in the next couple of years.

In all the research articles, a total of 2,553 subjects were studied. In some studies, subjects failed to provide certain demographic questions causing the reason for missing data for gender. Taking this into account, the total number of male subjects was 991 and the total number of female subjects was 1,062. Most of the participants were college students either as student-athletes (2,086) or as non-student-athletes (304). (Non-student athlete is a term college student-athletes use to refer to the general population that do not participate in collegiate varsity athletics.) The primary focus was on the student-athletes, followed by non-athletes as they are

the student-athletes' peers and provide a different perspective and viewpoint as they do not participate in college athletic. Finally, the third group interviewed were the athletic staff members and anyone who interacted with student-athletes that included coaches (one studies sent questions through email to over 300 coaches but only 136 complete the study). Another study took both athletic directors and coaches on phase two of their study; with this they surveyed 27 athletic directors or coaches. Studies mentioned athletic trainer and counselors, but no numbers were provided or discuss if they took part in the methods.

Regarding locations and schools' selection are as followed: Massachusetts, New Jersey, North Carolina, and Utah, a mid-sized southeastern university, a large Division I midwestern university, One "Power Five" level university, one in the "Group of Five", one Mid-Major, and one small Division I school. Five of the schools were located in urban settings. The 10 critical mass articles covered student-athletes who participated on sport teams including baseball, basketball, cross-country, fencing, football, golf, gymnastics, lacrosse, rugby, skiing, soccer, softball, squash, swimming and diving, tennis, track and field, rowing, rifle, wrestling, volleyball, and sand volleyball. Nine of the 10 articles focused on college athletes in the United States, while one critical mass article focused on just coaches and staff members and their views on mental health issues with help from the Canadian Athletic Association to gather this information.

Quantitative data was analyzed using a variety of different inferential statistical tests. These tests included independent t-tests, chi Analysis of Variance (ANOVA), one-way MANOVA, factor analyses, structural equation modeling (SEM) and Linear regression modeling. Others used a multitude of coding and statistical methods where data were reduced using root mean square error of approximation (RMSEA), the comparative fit one-way

MANOVA, a repeated measures ANOVA, a multiple group path analysis, standardized root mean residual (SRMR), and incremental fit index (IFI). The most common form of tracking data were Likert scales that were used in seven of the 10 studies. Independent t tests were used to analyze data in seven of the 10 studies. MANOVA was used for analysis in three of the studies and ANOVA was used in one study. One study used both MANOVA and ANOVA in their analysis methods. All the critical mass articles used multiple methods to gather their information and data.

One research article used a quasi-experimental design that was combined with Mursion, a software program that allowed the participant to be in a virtual setting to mimic a scenario. This was one of the few studies which used qualitative methods in combination with some quantitative methods. The researchers used a previous study from a Southeastern university in 2016 that used the program Mursion with five scenarios to create a base of scenarios. They then used an open-ended survey along with current literature to create the scenarios used in this study for the simulations. In these scenarios, they created unique situations that student-athletes have a challenging time trying to verbally communicate. Another study that also utilized some form of qualitative methods was when participants were able to ask questions at the end of the presentation to two former athletes, allowing for a broad range of topics to be brought up. Articles used for this synthesis were produced from journals including, *Journal of Clinical Sport Psychology*, *Journal of Athlete Development and Experience*, *Journal of College Student Psychotherapy*, *Journal of Issues in Intercollegiate Athletics*, *International Journal of Sports Science & Coaching*, *Journal of College Student Development*, *Journal for the Study of Sports and Athletes in Education*.

Chapter 3: Review of Literature

The focus of this chapter is to review a portion of the literature in order to investigate how the role of stigma surrounding mental health issues affects college athletes. The current review of the literature that is presented below only reflects the ten articles that were approved. To best present this review, articles were categorized according to common themes. The four categories include: First, those articles which compared student-athletes' views regarding seeking help for mental health issues versus non-student-athletes; Second, focused on student-athletes and their perception of public and self-stigma, and the roles it plays on the attitude of seeking help. Third, this section focuses on stigma with student-athletes, coaches and athletic staff. Lastly, the fourth section focuses on those studies which purposefully incorporated technology for help-seeking using pilot programs, presentations, virtual simulations, and other resources and interventions for student-athletes.

Together all of these articles aim to explore issues in attitude, perceptions, stigma, beliefs, and social norms relative to mental health issues. While discovering emerging computer technologies and pilot programs designed to reduce stigma in hope that student-athletes will seek help. While searching for articles, countless articles did not meet the requirement for approval. The current review of literature presented below only reflects the 10 critical articles that were approved, and which are a part of Appendix A which is found at the end of the paper.

The Student Athletes Versus the Non-Athletes

Starting college can be a tricky time for many students as it is their first time away from home, friends, and families. Although oftentimes students are told, "these are the best four years of your life," that is not always the case. Many times, students in both groups find themselves facing mental health issues and needing to seek help because of the stressors in their lives. While

both student-athletes (SA) and non-athletes (NSA) have the usual stressors such as dealing with course requirements, assignments, tests, and relationships, student-athletes, however, are faced with many more. They have the added pressure of performing well in their sport. These varsity sports programs present stressors that are unique to them, for example training, competition failures, excessive time commitment, organizational behaviors issues, weight control, failure to play, maintain academic eligibility, and always maintaining appropriate athletic behavior. This first group of studies, then, focused on the general attitude of seeking help from the perspective of both student-athletes and non-student-athletes. Researchers also focused on the difference of self-stigma and public stigma between the two groups.

In the first study, Leimer et al. (2014) compared non-student-athletes with student-athletes concerning their attitudes for seeking professional help. They hypothesized that the student-athlete group would not only have a stronger negative attitude towards professional counseling but would also be less likely to seek help compared to their non-student-athlete counterparts. To test their hypothesis, they recruited 256 students at a NCAA Division I school, of which 34% ($n = 90$) of the participants were student--athletes. Subjects were recruited in either a first-year level class or found in the university's student--athlete academic enhancement center. Participants were administered the *Attitudes Toward Seeking Professional Psychological Help Scale* (ATSPPHS). This scale was developed in 1970 by Fischer and Turner to measure individuals' general attitudes towards seeking professional help in regards to mental health issues. This 29-item measure scale included items such as, "If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy." All questions were answered using a four-point Likert scale, with zero meaning strongly disagree, one meaning disagree, two meaning agree and three means strongly agree.

Factor analyses were utilized in order to analyze the quantitative data from the ATSPPHS. Four subscale scores were calculated in the original study from Fischer and Turner (1970). The four subscale scores are recognizing the need for help, stigma tolerance, interpersonal openness, and confidence in mental health practitioners. Three of those factors were random samples used for the analyses, resulting in the four factors of attitudes. Factor one was to have subjects' acknowledgment of individual need of professional mental health services. The second factor was the subjects' attitude towards the stigma of receiving professional mental health services. Third, the ability of subjects to have comfortable experiences and share emotional problems and personal problems to a mental health professional. Fourth was the subject's confidence in mental health services and what it provides.

As hypothesized, results showed that SA scores were significantly lower than NSA on the ATSPPHS. They also found four items worth noting. First, 52% of the student-athletes stated that seeking therapy was costly and time consuming, while only 40% of the non-athletes believed this to be true. Second, 37% of the student-athletes believed that problems should be “kept in the family,” while only 11% of the non-student-athletes thought so. Third, 77% of the athletes agreed or strongly agreed that keeping one’s mind on the job is an effective way to avoid personal issues and problems, while 54% of the non-athletes believe this to be true. Lastly, 42% of student-athletes believed that talking with a counselor is a poor way of dealing with emotional problems as compared to 23% of the non-student-athletes. From their findings, Leimer et al. (2014) concluded that stigmas are still a significant factor preventing students, especially student-athletes, from seeking professional help.

Similar to Leimer et al. (2014) study on stigma, Kaier et al. (2015) explored the differences between student-athletes and non-athletes on the two types of stigmas, i.e., personal

and public, where each plays a different role in whether athletes and non-athletes seek professional help. Kaier et al. (2015) hypothesized a positive correlation of perceived public stigma and personal stigma between student-athletes and non-student-athletes. They also expected scores on the perceived public stigma to be higher than personal stigma, and finally, student-athletes would show higher perceived public and self-stigma scores than their non-athletic sample.

Kaier et al. (2015)'s study involved 407 students from 16 different NCAA Division I schools. Student-athletes (n=304) included 129 females and 175 males. Non-athletic subjects included 103 students at the same school. Kaier et al. (2015) administered the *Perceived Discrimination–Devaluation Scale* (PDD) that measures mental illness stigma and examines both personal and public stigma with a focus on how people view psychiatric patients. This scale used a six-point Likert-type rating, with zero being “strongly agreed” and five being “strongly disagreed.” An example of a personal item for student-athletes is, “I would willingly accept someone who has received mental health treatment as a close friend.” An example of the public stigma for student-athletes would be, “Most of my fellow student-athletes would willingly accept someone” For non-athletes, the example would look like: “Most of my fellow students would willingly accept someone...” In order to explore if athletes experienced higher personal and perceived public stigma (PPS) than non-student-athletes, researchers used a multivariate analysis of variance (MANOVA). Subjects' status of non-athlete or athlete was used as the independent variable and personal and PPS score as the dependent variable. The three hypotheses were confirmed. First, PPS and self-stigma were significantly correlated. Second, athletes' PPS scores were slightly but significantly higher ($M = 2.38$; $SD = 0.70$) than their self-stigma scores ($M = 2.18$; $SD = 0.47$) Third, student-athletes had personal stigma scores significantly higher ($M =$

2.18; $SD = 0.47$) than non-athletes whose scores ($M = 0.65$; $SD = 0.66$). Taken all together researchers were correct about how public perception affects personal stigma. This suggests that athletes internalize prejudiced mental health issues with their personal stigma.

Barnard (2016) also examined the attitudes of non-athletic students and student-athletes toward mental illness and seeking help from professional counselors. He included several additional standardized scales. He hypothesized that the student-athlete group would have significantly more stigmatizing views toward mental illness than did their non-athlete counterparts. More specifically, he had four hypotheses: first, that student-athletes would have greater devaluation and discrimination toward mental illness; second, student-athletes would have higher amounts of social distance in a variety of interpersonal situations; third, student-athletes would show less willingness to seek treatment, and lastly, there would be a positive relationship between strength of athletes with athletic identity resulting in stigmatizing views toward mental illness.

One hundred twenty-seven subjects were recruited from both private and public NCAA Division I and Division III schools. For each school, total sample sizes ranged from 31-41 subjects: Sample 1: student-athletes = 27, non-student-athletes = 22; Sample 2: student-athletes = 34, non-student-athletes = 13; Sample 3: student-athletes = 16, non-student-athletes = 15. Four different scales were administered to subjects: the *Devaluation-Discrimination Scale*, which indicated how much they agreed with statements regarding individuals suffering from a mental illness; the *Social Distance Scale*, which measured how much they would be willing to interact with individuals with a mental health problem in six different situations; the *Attitude Towards Seeking Professional Psychological Help Scale* (ATSPPHS), which examined participants'

beliefs regarding seeking help from a mental health professional; and the *Athletic Identity Measurement Scale*, which measured the importance of being an athlete.

Student-athletes' and non-athletes' scores based on the four scales were analyzed using independent t-tests. Many of Barnard's previously stated hypotheses showed no significant differences. To the researcher's surprise, one hypothesis showed meaningful results but in the opposite direction, where student-athletes valued mental health issues more than non-student-athletes. Barnard indicated that the reason for this finding was primarily due to one school having a campus counseling service associated with the athletic department. This finding showed that such a service is vital in reducing the stigma of seeking mental health counseling.

Taking all of the above into consideration, these results indicate that student-athletes care about mental health with the right setting. The research also shows that student-athletes will avoid stigmas more so than non-student-athletes. This holds true for both personal and public that steer athletes away from seeking help or services. These findings show that student-athletes think more about mental health more than previously assumed.

Focus on the Student Athlete Only

In a recent study by Hilliard et al. (2019), they examined whether public and personal stigmas share a relationship along with attitudes towards seeking professional help. Their study, however, added another dimension. They hypothesized the following: First, that public-stigma would positively effects on self-stigma while self-stigma would have negative effects on attitudes. Second. Self-compassion would affect the relationship between public stigma and self-stigma, and self-stigma would be weakened in individuals with higher levels of self-compassion. Further, would there be a difference in reporting self-compassion between male and female student-athletes? They defined public stigma as external forms of stigma that refers to beliefs on

how individuals display traits and behaviors that are unacceptable by societies and others. Self-stigma includes individuals' beliefs that their traits and behaviors are unacceptable by others.

They recruited student-athletes from Division I and Division III schools to take part in the study. Volunteers included 146 males and 97 females for a total of 243 participants. Eighty-three percent of the subjects were white. Sports teams that were included in this study were football, swimming and diving, soccer, rowing, basketball, baseball, lacrosse, tennis, cross country/track, and field, softball, volleyball, golf, wrestling, and rifle. Football was the largest group of participants with 27 percent. Division I participants were required to complete a demographic questionnaire and four standardized scales. First, for self-compassion they used the *Self-Compassion Scale-Short Form* (SCS-SF), a set of 12 items on a five point Likert scale ranging from one to five with one representing (*almost never*) to five representing (*almost always*); as an example, "when I feel down I tend to feel that most other people are happier than I." Second, for self-stigma the *Self-Stigma of Seeking Help* scale (SSOSH) was used, with 10 items on a five point Likert scale, one to five as one equals (*strongly disagree*) and five equals (*strongly agree*); example "if I went to therapy I would be less satisfied with myself." Third, public-stigma was measured using the *Stigma Scale for Receiving Psychological Help* scale (SSRPH), with five Likert items on a four-point scale with the example of "People tend to look less than those who are receiving professional psychological help." Lastly, attitude was measured using the *Attitudes Toward Seeking Professional Psychological Help-Short Form* (ATSPPH-SF), a 10 item Likert scale, going from zero to three with zero representing (*disagreed*) to three representing (*agreed*). An example is "I would want to get psychological help if I were worried or upset for a long period of time." These scales then were imported into a software called AMOS 25.0 that was designed by IBM to form the Structural Equation Modeling (SEM). The first step used the

measurement model to test the data. Second, they used the structural model to test the hypothesized questions. Before entering data for the main analyses, a preliminary analysis took place to examine correlations between the variables. First, self-compassion ($M = 2.98$; $SD = 0.63$) was correlated with public stigma ($M = 1.28$; $SD = 0.48$). Second, public-stigma was also correlated with self-stigma ($M = 2.65$; $SD = 0.61$) and attitudes ($M = 1.63$; $SD = 0.47$). Lastly, self-stigma and attitude were correlated. The main structural model found that self-compassion and public stigma were independent variables. Self-stigma and attitudes are the dependent variables of the model. Results for the correlations showed a weak but significant negative relationship of self-compassion with public stigma. Results showed that public stigma was positively associated with self-stigma, while self-stigma negatively impacted the attitude toward counseling. However, athletes showed lower levels of self-stigma than previous studies and a significantly more positive attitude toward counseling services. This suggests that effort needs to continue to reduce stigma, especially their findings dealing with public and self-stigma and attitude. No other correlations were significant. According to the SEM, self-compassion did not have a moderating effect on public and self-stigma as hypothesized. Further, no significant differences were found between males and females on self-compassion or self-stigma.

The Importance of the Athletic Staff

In the studies detailed so far, the focus has been on changing the behavior and attitudes of student-athletes when dealing with public and self-stigma. This section, however, focuses on the role that coaches play in talking to their athletes about mental health issues and whether that they see it as part of their job. Murphy and Sullivan (2021) indicate that coaches and athletic staff should play a critical role in every phase in the development of the athlete, and at the intercollegiate levels agree that it is within their role to be involved in the mental health of

athletes. They contacted 370 coaches and staff from several universities in Canada. Of these, only 136 completed the questionnaires. Of the 136 coaches who responded, 83 were males, 50 were females, two identified as non-binary, and one was left blank. Sixty-two percent ($n = 84$) of the 136 were head coaches, the others, 35% ($n = 47$) were assistant coaches, with five respondents choosing to leave it blank or chose not to say anything. Seventy-one out of the 136 participants were younger than 41 years of age and 63 were 41 years of age or older with two leaving blanks. Eighty-eight percent of the coaches were white leaving 6.6% as others with Asian and Blacks made up 4.4% and Latino and Aboriginal 1.4%. Coaches were divided into two groups, under 40 ($n = 71$) and 40 years of age or older ($n = 63$). Murphy and Sullivan (2021) collected information on attitude, perceived behavioral control (PBC), and social norms using the *Theory of Planned Behavior Survey*, along with questions on social norms, behavior, and intentions. Attitudes were identified as feelings toward talking with student-athletes about mental health. Planned behavior control was described as the ability to perform the behavior of discussing mental health issues with student-athletes. Social norms refer to the belief others hold about the topic. Intention is defined as role perception where coaches believed it was their place to be involved in an athlete's mental health. All constructs used a 7-point Likert scale ranging from *strongly agree* at one and seven being *strongly disagree*. Attitude had five questions, PBC had seven questions, social norms had two questions. To identify intentions, a linear regression was used to measure the relationship of attitude, PBC and social norms. Their findings were supportive concerning mental health where the coaching staff was aware and mindful. Murphy and Sullivan (2021) reported that 70% of the coaches agreed or strongly agreed that it was the coach's place to deal with mental health issues. If coaches had previous mental health experience by dealing with student-athletes the previous semester, 77% agreed or strongly agreed.

Furthermore, none of these coaches were neutral or negative about the importance of helping student-athletes with mental health issues. However, if coaches did not have that previous experience, they were more likely to have a higher score on social norms and attitude to the TBC survey. Only 62% agreed and 22% were neutral or negative about helping student-athletes. The younger coaches and assistant coaches showed significantly lower scores on social norms that dealt with what others believe about behavior as compared with those coaches 41 years of age and over.

Cutler and Dwyer's (2020) research took a different approach. One main purpose of their study was to examine the student-athletes' perceptions of their coaches and non-athletic staff as supporters and advocates of mental health. Additional focus included seeking to identify student-athletes' experiences with mental health issues and the type of coping mechanisms they used to control stress, as well as stigma as they relate to differences in how they perceive themselves and their teammates in seeking mental health services. These three factors guided their research and led to the formulation of four specific research objectives: first, to determine differences in student-athletes' stress related issues and coping mechanisms to deal with their unique form of stress; second, what was the likelihood of student-athletes seeking help from their coaches, team support personnel, and non-team support services; third, closely related to item two, the degree to which team and non-team related personnel are sought by the student athlete to control stress; and last, to assess the role of stigma, how student-athletes view their teammates who seek mental health care, and how they think their teammates feel about fellow teammates seeking help.

The researchers recruited 158 student-athletes via email from four different Division I schools. They surveyed one power five level school, one at the group of five, one mid-size and lastly, one small school. This allowed for a variety of responses to try and make the study

comprehensive to assess the four research objectives. They first used descriptive statistics questions like “Have you encountered a fellow athlete struggling to manage their academics, athletics, and/or social life?” They were asked to circle one of three answers, yes, no, or depends/I do not know/not applicable. These were the results from the four research objectives starting with Objective 1: Student-athletes were asked to rate the following question on a five point Likert scale, “How often does stress of athletics and academics positively impact your college experience? The mean score was 1.37, which was rated as highly unlikely. However, when identifying the type of stress that was most debilitating for student-athletes, they reported day-to-day stress. Concerning coping strategies, drinking alcohol and using drugs were not mentioned. Objective 2: If student-athletes sought help, the athletic staff was neither the first nor second choice, but rather help from individuals not associated with the team. Using a paired *t* test, the difference was statistically significant. Objective 3: If student-athletes were to seek help for mental health issues, they preferred non-team support staff, followed by team-support staff, and lastly, from coaches. Student-athletes reported that they were “more likely” to seek guidance from a staff member of an athletic department with a specific mental wellness facility as long as it was confidential (Cutler & Dwyer, 2020). Fifty percent of the student-athletes reported that if they had a mental health crisis, they were not sure or did not think their coaching staff could offer support. Objective 4: Concerning stigma, student-athletes saw themselves as more accepting and trusting for a teammate seeking mental health therapy than their fellow teammates. These results were statistically significant. Finally, the role of stigma was significantly reduced where teammates were perceived as more supportive of a fellow teammate seeking assistance having mental health issues. Taken together these studies indicate that athletes would rather go to

someone outside of the programs for help unless the program has mental health service inside the athletic department.

Use of Computer-based and Other Programs

One of the early efforts to take advantage of using the computer was designed by Raalte et al. (2015). They designed a computer-based program that could be used by any athletic department across the nation, to assist student-athletes with information surrounding mental health issues, especially with helping them gain necessary knowledge and confidence to make effective mental health referrals. The program was called “SupportForSport.org.” With their first efforts, they recruited 10 student-athletes to troubleshoot any problems with the program to render it more user friendly. Next, the researchers recruited 27 Division I, II, and III university athletic directors and coaches from nine different states. The subjects tested the program not only to ensure the material was appropriate, but also to gain an understanding and appreciation of the program. They were required to complete the six-item *Treatment Acceptability Questionnaire* (TAQ). The findings showed that athletic directors and coaches were encouraged and believed the website was an especially useful tool for student-athletes. They also recommended that the training staff be exposed to the program.

After this Raalte et al. (2015) presented the revised program for evaluation to 153 volunteer subjects across Division I, II and III. Of the 153 participants, 46 were male, 103 were female, and four did not select a category. The treatment program was compared to a different program, i.e., the Control condition, which was prepared by the NCAA. The two programs were presented in a counterbalanced fashion where half of the participants saw the NCAA program first followed by the SupportforSports program. The other half had the reverse order. Pre-intervention scores relating to self-efficacy were collected prior to presenting the two computer-

based programs. Self-efficacy scores refer to knowing one has the ability and confidence to do what is required. Analysis using Welch's *t* test showed no difference in self-efficacy prior to viewing the two programs. Post-intervention results showed significantly higher self-efficacy scores for the SupportForSport.org vs. the NCAA.org/student-athletes program. A follow-up interview found strong support for the experimental program as compared with the control program. Raalte et al. (2015) believed that interacting with this program should help student-athletes overcome the stigma of seeking-help from professional mental health counselors.

Bird et al. (2018) also approached the issue of public and self-stigma through the use of computer technology. As discussed above, the problem with physically seeking professional help is that others see you going to or at the counselor's office, thus erasing all anonymity. Online Counseling (OC) would definitely remove that barrier. Their research examined the role of Face-to-Face (F2F) counseling compared to OC. Besides public and self-stigma as variables, they also examined the role of "time" that is needed to obtain counseling services. They aimed to answer four questions. First, were there differences between the levels of stigmatization by others and self-stigma for both student-athletes and non-athletes? Second, did attitudes toward OC and F2F differ with student-athletes? Third, were there any differences between student-athletes and non-athletes regarding attitudes towards OC and F2F? Fourth, does the relationship between self-stigma, stigmatization by others, and attitudes towards seeking both OC and F2F differ between student-athletes and non-athletes? This study also wanted to identify which student-athletes were most likely to seek help from if they were having a mental health issue, whether student-athletes have time in their day to seek mental health services, were student-athletes aware of mental health service, and were they available. One hundred and one student-athletes and an equal number of non-student-athletes from the university received an email from the institutional

review board of that university to be in a subject pool for this study. Subjects in the pool gained participation credit that could be used toward any class.

In a study by Bird et al. (2018), subjects were administered the following scales: First was the *Online Counseling Attitudes Scale* (OCAS) and *Face-to-Face Counseling Attitudes Scale* (FCAS). These measured 10 items which were nearly identical to each other, with the only difference of the setting of one being face-to-face and the other online. They both measure two variables either value or discomfort with counseling attitude. The next measure, *Self-Stigma of Seeking Help* scale (SSOSH); is comprised of a 10-item unidimensional measure system to assess self-stigma in regards to seeking help. Items are on a five-point Likert scale, with one indicating (*strongly disagree*) and five being (*strongly agreeing*). A higher score would mean greater self-stigma; scores could range anywhere between 10 and 50. The researchers also stated that this scale is among the most reliable and has been cross evaluated with the *Discomfort Evaluation Scale* (DES) scale and the *ATSPPHS* scale. The *Perception of Stigmatization by Others for Seeking Help* scale (PSOSH) is a five question questionnaire that measures individuals' perceptions of stigmatization by others through the use of a five point Likert scale. The *Help Seeking Questionnaire* (HSQ) was designed from a general help-seeking questionnaire developed by Wilson et al. (2005). Individuals are asked to indicate any source that they would utilize to seek help if they were having a personal or emotional issue. The questionnaire contained six general resources of help, for example friends, parents, family members, and mental health professionals. Six student-athletes added an option such as athletic directors, coaches, teammates, academic professor, and sports psychiatrist. It also allowed them to report if they would not seek help from anyone.

They were able to successfully match gender and race. Results revealed that 30% of student-athletes had previously sought professional counseling while only 15% of the non-student-athletes did so. Both groups believed that they would be able to find time for therapy (68%) and 90% of the participants were aware of campus health services. However, if a student-athletes had a mental health problem, 75% would prefer to seek help from family, friends, and significant others, while coaches (37%) and mental health counselors (19%) were ranked much lower as support personnel. Concerning public and self-stigmas, as expected from previous research by Kaier et al. (2015), public and self-stigma were significantly and positively correlated; however, no difference was found between student-athletes and non-student-athletes. Of the two types of counseling, both student-athletes and non-athletes, athletes preferred F2F over OC. For F2F, they placed higher levels of value, and lower levels of discomfort than with OC, even though the latter appeared to have more benefits, e.g., anonymity and convenience. The challenges of OC included the problem of the therapists a close relationship with clients. This relationship is essential and accounts for 30% of the variance in client outcomes. According to the researchers, OC therapists may miss certain non-verbal cues, misread text-based communication, or be uncomfortable with technology. From the results, both forms of stigma prevent student-athletes and non-student-athletes from seeking-help. More needs to be done to stress the importance of counseling, especially OC due to its availability, convenience, and anonymity.

Kern et al. (2017) examined the effectiveness of an innovative pilot program designed at a large Midwest Division I university. The program, named Athletes Connected (AC), was designed specifically for student-athletes to begin the process of reducing the stigma of seeking therapeutic assistance, identifying those pathways for finding help, and demonstrating the

prevalence of mental health problems. The AC team conducted a series of nine programs over a period of six weeks attended by 652 student-athletes 28.3% where males 25.1% females and 46.6% were unable to mark down their gender. Subjects were administered a pre- and post-test evaluation. The program was then presented by professional counselors, with topics covered including recognizing mental illness, reducing its stigma, identifying its prevalence, successful coping strategies, and when and where to seek help. The highlight of the program was video of two former athletes who served as case studies beginning with the onset of their mental illness and after a long ordeal, ending with a successful resolution. Students were encouraged to ask questions after the first video. After the second video, the student-athletes met with both student-athletes and were encouraged to seek answers to their questions. During the pre-test period, student-athletes were asked if their performance was negatively affected by mental health issues in the past four weeks. A whopping 68 percent of the athletes responded in the affirmative. Instead of standardized scales used for pre- and post-testing, the researchers developed questions more appropriate for their unique program. Surveys were given to the subjects both before and after PowerPoint. They wanted to see if there were changes in the student-athletes' knowledge and attitude towards mental health. Second SA were about to ask qualitative questions to the two former SA that gave the presentation. Researchers ran a *t* test on identical questions from the pre/post surveys to determine if changes happened within the mean. The questions pairs were split into four categories: Supporting Teammates, Own Help-Seeking, Knowledge, and Stigma. To conduct the paired *t* test the "comfort," "confident," "likely," "true-false," and "agreement" scales were created. The "comfort" Likert scale ranged zero to four, with zero equal to *very uncomfortable* and four equal to *very comfortable*. Second, the "confident" Likert scale went from zero to four, with zero equal to *not confident* at all and four equal to *very confident*. The

“likely” Likert scale was zero to four, with zero equal to *very unlikely* and four equal to *very likely*. The “true–false” scale was coded from zero to one, with zero equal to the *wrong answer* and one equal to the *right answer* for the item. Lastly, the “agreement” Likert scale was zero to five, with zero equal to *strongly disagree* and five equal to *strongly agree*. Post-test results were significantly better than pretest scores across all categories that included: Supporting Teammates, Own Help-Seeking Efforts, Knowledge about Mental Health, and Reducing Stigma.

Fraley et al. (2020) took a vastly different approach. They assumed that the basis of student-athletes' problems was their inability to effectively communicate about issues concerning mental health. They developed an innovative computer program called Mursion. This program took a closer look at communication skills for college athletes that were designed to tackle difficult conversations in a safe environment. Depending on the role of the interviewer, an appropriate avatar appeared on the computer monitor that engaged the participant. The avatar played several separate roles, e.g., coach, professor, or potential employer. The Mursion program lasted five weeks and covered five different scenes, each lasting 10 minutes. These scenarios were based on qualitative data from an open-ended survey. Using a quasi-experimental design, 39 student-athletes were randomly assigned to the Mursion group, while 40 other athletes to control conditions. The control group did nothing for those same five weeks. Both groups were administered post-surveys five weeks after the completion of the Mursion group participation. The participants were required to complete numerous surveys, e.g., Interpersonal Communication Competence scale, while other scales were modified to fit the Mursion program. The use of a quasi-experimental design was conducted to design interactive scenarios. The researchers used qualitative methods to gather information to cater to the scenario's student-athletes deem as stressful. As well as a “structural” analytical approach to code for the main

categories for word, sentences, or phrases in the program. Mursion with the use of immersive simulation technology for the interactive programs to allow for a conversation to happen in a safe environment for screening.

Findings showed no difference in communication improvement after being exposed to the Mursion program and the control group where no treatment was administered. Pre and post-scores were similar. However, significant differences were found between race/ethnicity and the interaction of gender and pre and post- test scores. Concerning race/ethnicity, non-white student-athletes perceived less support from the university and the athletic department than their white student-athlete counterparts and they also showed a great unwillingness to communicate regards of the Mursion program. On the other hand, the interaction of gender and difference in pre and post-test scores showed females were more willing to communicate pre-test than post-test, while males initially were less willing to communicate pre-test than post-test. Even though the results failed to support the Mursion program, the researchers remain optimistic the technology can be used to help mental health issues and tackle difficult conversations. The researchers hope to bring the same version to coaches and administrators to help them understand student-athletes' issues so they can learn as well.

Summary of studies

As a coach or an athletic administration, gaining mental health literacy knowledge and reading studies or articles can help design a program that can try to break down mental health barriers for their student-athletes. The research has shown that athletes already view themselves differently than their non-student athlete peers. Student-athletes among other things fear being looked down at instead of asking for help. As an administrator or anyone who interacts with student-athletes should consider working towards removing stigma around student-athletes. As

stated in the introduction, stigma surrounds a vast majority of people with mental health issues. These issues come at a cost, most importantly in lives lost to suicide. It is the third leading cause of death. Mental illness leads to a significant loss of productivity reaching nearly one trillion dollars. The article above reflects that stigma is the main reason individuals in need of counseling do not seek help. For student-athletes they do not seek help as they feel it will affect their playing time, relationship with their coach and teammates, and especially, reputation. The availability, accessibility, and confidentiality of seeing a professional counselor would be an excellent start. As the last article pointed out, the perception by minority student-athletes of not being recognized and appreciated needs to be further addressed.

Chapter 4

Results, Discussion and Recommendations for Future Research

The purpose of this chapter is to present the results of the review of literature on the stigma surrounding mental health disorders in college athletes and how these results align with the purported research questions which guided this synthesis project. In addition, recommendations for future research as it relates to stigma surrounding mental health disorders for college athletes are presented.

The results of this review of literature displayed a variety of stigmas along with perception and attitudes toward stigma and seeking help. The results indicated that for student-athletes a higher level of personal stigma or self-stigma was present compared to their non-athlete peers. Personal/self-stigma has a negative effect on attitude across all studies as well as higher levels of personal/self-stigma greatly affects student-athletes perceived public stigma. Resulting in a negative attitude toward seeking help and getting viewed in a negative light by others weigh greatly on student-athletes. Though public stigma and self-stigma can be viewed positively with each other, it's also fair to note that self-stigma is negatively affected by attitude. Since student-athletes consider they should keep mental health issues in the family while also believing seeking help through a counselor is a poor way to deal with problems while also feeling it may jeopardize their team standing and is time consuming, it contradicts keeping it in the family. Even though the studies have shown having a mental health personal attached to the athletic department helps cut down all stigmas for student-athletes. Lastly, the research has shown when it comes to technology and mental health, catering to the unique stressors of student-athletes and having a variety of lectures/PowerPoint and access to online or face-to-face service is ideal for anyone who struggles to gain mental health literacy and knowledge. The more

knowledge one has the more they can better understand themselves and their peers as self-compassion is an effective way to reduce public and personal stigma for mental health.

Discussion

Interpretations

Several research questions were posed prior to the literature review. The first research question is “what are college athletes’ perceptions of the stigma surrounding mental health issues in college athletics and how are they different from their non-athletic peers? The results of the previous literature review starting with Hilliard et al. (2019) stated that a higher rating of self-stigma resulted in a significantly negative attitude toward counseling service. Kaier et al. (2015) reported a similar finding where student-athletes showed more concerns with public stigma or what others thought than non-student-athletes. Leimer et al. (2014) reported that student-athletes have a significantly higher negative attitude towards professional psychological help than non-athletic-students. This is possibly a defense mechanism for not seeking assistance, student-athletes' state that their busy schedule does not allow much “wobble room” for them to seek help. However, most student-athletes reported that they felt that talking to a counselor would disrupt their status as an athlete and reduce their playing time. Kaier et al. (2015) Also stated that this could be why college athletes underutilize mental health services, as being a college athlete gives them “celebrity status” as they experience less privacy and feel more vulnerable to discussing mental health issues.

Bird et al. (2018) found that student-athletes indicated that they sought the help of counselors more frequently than non-student-athletes and agreed that if they had a problem they would seek help (68%) and 90% were aware of campus counseling services. Even though more student-athletes believed in seeking help and were aware of the campus counseling services,

when asked where they would seek help when they were dealing with an emotional problem, surprisingly, the top choices were parents, friends, and intimate others. They were identified approximately 70-75% of the time. Coaches were identified 38% of the time and at the low end were mental health professions, identified by only 19% of the respondents. In line with this Cutler et al. (2020) Found that student-athletes 50% of the time were unsure or not confident in their coaches' ability to offer support with an emotional crisis. Which is interesting, as Murphy and Sullivan (2021) found that 70% of the coaches agree or strongly agree it is within their role as a coach to be involved in student-athletes' mental health. In the same study, only 47.1% had training while 46.3% claimed they had no training. Yet they feel it is within their role but are not adequately prepared across the board. The findings by Leimer et al. (2014) showed that student-athletes felt mental issues should be "kept in the family." From personal experience and research, typically "in family" from a student-athlete's point of view means teammates or coaching staff. Oftentimes, student-athletes are told that the community knows who they are even if the student-athlete does not know them. Simply because they are an athlete, any actions good or bad will be a reflection on their program and on their fellow teammates. Just because practice is done for the day, or their uniform is off does not mean they are no longer viewed as an athlete they are still representing their athletic department. However, it is difficult to identify whether they were referring to a student-athlete's "personal family" or "team family."

For the most part, student-athletes regard the stigma of seeing a therapist as a significant negative factor and not worth the risk of identifying that they have an emotional problem, even though both Kaier et al. (2015) and Barnard (2016) found that student-athletes and non-athletes both would benefit from education that reduces stigma of mental illness. Barnard (2016) also found that a school with a counseling service inside the athletic department was more accepting

of people with mental health issues. A higher level of self-compassion is associated with reduced self-stigma and reduced negative attitudes towards seeking help. Meaning less public and self-stigma can greatly improve both student-athletes and non-athletes' attitude towards seeking help.

It is only fair to note that no differences between men and women on self-compassion scores were found, meaning that both male and female athletes set themselves to similar scales in regards to mental health. Even though Barnard (2016) did find that female athletes were a little more willing to seek help from counseling services. Hilliard et al. (2019) also found the same thing and noted that no specialized difference needs to cater to one gender or the other. This means most programs can be overlapped and used for almost all athletic teams.

The second research question that was examined was, what type of training or intervention programs exist to help athletes and coaches on awareness for mental health issues? The results shown throughout several studies displayed the importance of counseling, and with the current technology, new simulation programs and pilot programs are being tested on college athletes. The result showed that intervention and programs could use some improvement. The two programs that stood out the most were Mursion and SupportforSports.org (Fraley et al., 2020; Raalte et al., 2021). There was a better response to the SupportForSport group compared to the NCAA.org program. Interacting with the NCAA program helped student-athletes to overcome the barriers and seek professional support for mental health issues. The experimental program SupportForSport had a positive influence on student-athletes' mental health referral efficacy and mental health referral knowledge compared to the NCAA group of student-athletes who viewed the video.

Similar results were found in Fraley et al. (2020) as with the simulation program Mursion. It is viewed as one of the most useful of the training programs along with the

accompanying research methodology using both qualitative and quantitative data. Part of the Mursion activity required talking with and listening to current and former athletes to determine what student-athletes deem as a difficult conversation concerning mental health problems. Student-athletes saw realistic reenactment simulations of stressful conversation defined by their fellow student-athletes. This program allowed them to interact in a safe environment and tackle difficult conversations. These results are promising as this program could potentially help with the growing mental health issues. Similarity to Fraley et al. (2020) with Bird et al. (2018) results have shown Face-to-Face (F2F) therapy vs. Online Counseling (OC) using computers should be mentioned due to the importance of counseling, especially OC due to its availability, convenience, and anonymity. These two studies can go together as F2F had significant discomfort for student-athletes and had a more negative attitude toward public stigma if seen F2F counseling. Fraley et al. (2020) also stated that his program could be especially useful for female athletes, who find it difficult to communicate plus subjects can restart if they mess up without feeling judged by another person. Technology allows for interactions and programs that can be accessed during times that athletes have open and can utilize them anywhere and can be done alone in a safe place.

Implications

Previous research on the stigma surrounding mental health issues in college athletes and the impact it has on seeking help. Many of the conclusions of the results are on the right path for developing better athletic programs, but still need some guidance. The results of this synthesis offer practical implications which can be used for the general population, student-athletes, coaching staff, and anyone involved in athletics or interacts with athletes.

Personal research has found that mental health issues are starting to become a topic of interest for former student-athletes and for researchers. Due to the high demand already placed on school counselors who also work with the non-student-athlete population while also having a requirement to student-athletes. Which present issue as they have unique demands due to managing a busy schedule, university counseling services are overwhelmed. This puts coaches and athletic administrators in a tough spot as they advise student-athletes to seek help if they are struggling, by utilizing the schools counseling services. Often, the waitlist to see a school counselor can range from two weeks out to as long as two to three months, which then adds strain to the coaching staff and athletic administration. This then impacts the coach's relationship with their athletes. As a college coach or any athletic coach, the athlete/coach relationship is a key element in athletic development. If athletic departments can start employing sport psychologists or counselors to work strictly with student-athletes, this will cut down on the stress with the schools counseling service allowing them to focus on the rest of the population. While having services in the athletic department will allow for catered schedule times and easy access right in the buildings in which many athletes spent a majority of their time in.

Also implementing training for all staff members within athletics and student-athletes will help with any personal bias towards mental health issues. This will also allow the coaches to build a trusting relationship with their student-athletes while also providing correct information and resources that can help them. With technology being a part of these studies adding resources on the athletic page to new studies, resources and programs including access to programs like Mursion could help athletes practice certain skills on their own. It could help the athletes who fear opening up with anyone will reflect negatively on them. Programs that are willing to gain knowledge and seek change will hopefully promote a sense to current and potential student-

athletes that their program values and cares about all aspects of their student-athletes' lives. Current basic research on mental health has also shown that Division I schools have started to change the narrative for mental health issues. Some Division I programs are hiring counselors for their athletic departments as well as educating their coaches using a variety of different platforms. These small and simple changes can have a monumental effect on the athletic department and can help change the stigma surrounding mental health. Not only for their athletes but for the rest of the general population as both sides could benefit less from stigma.

Limitations & Recommendations for Future Research

Following a thoughtful review of the data available regarding the stigma of mental health issues in student-athletes the following limitations were noted within the literature. The studies were limited to information that had been collected, often due to a low return rate on surveys leaving out certain teams that could provide unique stressors and issues. These studies were also limited to whom they chose to gather their research from, not gathering information from athletic directors and coaches of the same programs does not allow for the bigger picture or for follow up studies. Another limitation of the studies was the lack of racial/ethnic subjects losing certain perspectives depending on the Divisions. It should also be noted that there is a lack of qualitative data on mental health issues. To best understand mental health issues subjects, researchers need to utilize descriptive data, interviews, and any qualitative method.

Based on these limitations, future research should consider the following recommendations:

1. Included more ethnicities, gain a larger sample size, and bring up return rate
2. Make sure a controlled group or a baseline group for all studies to best view mental health issues.

3. Training coaches and staff to be more effective in recognizing problems and immediately seek to address them and make referrals.
4. Win at all costs attitudes may jeopardize a student's standing on the team who is dealing with mental health problems.
5. Coaches and staff must be more accepting of student-athletes with mental health issues.
6. Look into the conversation about mental health between student-athletes and their coach.
7. Provide for more inclusive recruitment of participants who are the primary stakeholders in addressing the stigma issue.
8. Conduct additional research to identify what levels of mental illness severity where stigma influences an individual's decision as to whether or not to seek help or treatment.
9. Understand and have a greater appreciation of all athletes' culture that could prohibit individuals from seeking treatment to help.
10. Conduct additional research on Division I, II, and III schools to identify similarities and differences among the programs.

Summary

The purpose of this synthesis was to review literature on the stigma surrounding mental health issues in college athletes. An exhaustive search of online databases using specific delimiting techniques and key words revealed 10 articles that were selected for this synthesis. These articles were then systematically used to determine the stigma surrounding mental health issues in college athletes.

Research revealed that mental health issues come in a variety of forms. All are important and should be addressed. Issues arise from stigma whether its self-stigma or public-stigma both act as a barrier to seeking-help. The perception of how others will view them greatly determines

their attitude towards mental health services. With an already packed schedule from classes, practices, and other requirements it is no wonder student-athletes can not find time in their day to seek and devote to their mental health. It is clear that access to counseling services greatly reduces self-stigma and public-stigma, especially if the services are attached to the athletic department. Self-compassion is an effective tool in reducing stigma associated with mental health for both student-athletes and non-athletes.

Further research and enhanced analytics on stigma and other associated variables could help expand the list and allow for more research articles involving all aspects within a program athletic department. Hopefully, future research will be able to build on these studies that provide student-athletes with more mental health literacy knowledge, as well as developing more programs and resources to be available to all student-athletes. This information can be used by student-athletes to gain better mental health literacy knowledge as well as anyone working with athletes or anyone looking to expand their knowledge on mental health. The more education on mental health programs and new technology can ensure anyone can start to combat mental health issues. The future of programs can greatly improve simply by having the willingness to look at one's own role they might play in stigma. Lastly, these discoveries of stigma and the variables being identified in programs can all be transferred and utilized by other departments. The more administrators and coaching staff hear of mental health issues from their athletes the more possibilities to reduce the stigma in athletic departments. As well as the room to improve current programs and provide a better experience for all student-athletes. Ending stigma and educating oneself can allow for better mental well-being for everyone involved.

References

- Barnard, J. D. (2016). Student-athletes' perceptions of mental illness and attitudes towards help-seeking. *Journal of College Student Psychotherapy, 30*(3), 161–175.
DOI: [10.1080/87568225.2016.1177421](https://doi.org/10.1080/87568225.2016.1177421)
- Bird, M. D., Chow, G. M., Meir, G., & Freeman, J. (2018). Student-athlete and student non-athletes' stigma and attitudes toward seeking online and face-to-face counseling. *Journal of Clinical Sport Psychology, 12*(3), 347–364.
<https://doi.org/10.1123/jcsp.2017-0010>
- Bu, D., Chung, P.-K., Zhang, C.-Q., Liu, J., & Wang, X. (2020). Mental health literacy intervention on help-seeking in athletes: a systematic review. *International Journal of Environmental Research and Public Health, 17*(19), 7263.
doi: 10.3390/ijerph17197263
- Chandler, G.C., Kalmakis, K.A., Chiado, L., Helling, J. (2020). The efficacy of a resilience intervention among diverse, at-risk, college athletes: A mixed-methods study. *Journal of the American Psychiatric Nurses Association, 26*(3), 269-281.
<https://doi.org/10.1177/1078390319886923>
- Cutler, B. A., & Dwyer, B. (2020). Student-athlete perceptions of stress, support, and seeking mental health services. *Journal of Issues in Intercollegiate Athletics, 206–226.*
- Fischer, E. H. & Turner, J. L. (1970). Orientations to seeking professional help: Development and research utility of an attitude scale. *Journal of Counseling and Clinical Psychology, 35*(1), 79–90.

Fraleley, T.A., Warner, S.M., Wilson, C., Jones, G.J., & Catalano, M. (2020). Tackling difficult conversations: student-athletes, mental health, and emerging technology. *Journal of Athlete Development and Experience*, 2(2).

DOI: 10.25035/jade.02.02.03

Fuller, R, Lawrence, S.M., Harrison, C.K., Eyanson, J., Griffin, W. (2019). College student perceptions of preferential treatment of college athletes. *Journal for the Study of Sports and Athletes in Education*, 13(3), 171-190.

DOI: [10.1080/19357397.2019.1647034](https://doi.org/10.1080/19357397.2019.1647034)

Galaif, E. R., Sussman, S., Newcomb, M. D., & Locke, T. F. (2007). Suicidality, depression, and alcohol use among adolescents: A review of empirical findings. *International Journal of Adolescent Medicine and Health*, 19(1), 27–35.

<https://doi.org/10.1515/ijamh.2007.19.1.27>

Hilliard, R. C., Redmond, L. A., & Watson, J. C., II. (2019). The relationships among self-compassion, stigma, and attitudes toward counseling in student-athletes, *Journal of Clinical Sport Psychology*, 13(3), 374-389.

<https://doi.org/10.1123/jcsp.2018-0027>

Kaier, E., Cromer, L.D., Johnson, M.D., Strunk, K., & Davis, J.L. (2015). Perceptions of mental illness stigma: comparisons of athletes to nonathlete peers. *Journal of College Student Development*, 56(7), 735-739. [doi:10.1353/csd.2015.0079](https://doi.org/10.1353/csd.2015.0079)

Kern, A., Heininger, W., Klueh, E., Salazar, S., Hansen, B., Meyer, T., & Eisenberg, D. (2017). Athletes connected: Results from a pilot project to address knowledge and attitudes about mental health among college student-athletes, *Journal of Clinical Sport Psychology*, 11(4), 324–336.

Kessler, R. C., Heeringa, S., Lakoma, M. D., Petukhova, M., Rupp, A. E., Schoenbaum, M.,

Wang, P. S., & Zaslavsky, A. M. (2008). Individual and societal effects of mental disorders on earnings in the United States: results from the national comorbidity survey replication. *The American Journal of Psychiatry*, *165*(6), 703–711.

<https://doi.org/10.1176/appi.ajp.2008.08010126>

Leimer, A. D., Leon, R. A., & Shelley, K. (2014). Stigmas and stereotypes: counseling services for student-athletes. *Journal for the Study of Sports and Athletes in Education*, *8*(2), 121–135. DOI: [10.1179/1935739714Z.00000000022](https://doi.org/10.1179/1935739714Z.00000000022)

NAMI: National Alliance on Mental Illness. (n.d.). Mental health by the numbers.

<https://www.nami.org/mhstats>

Mast, R., & Gentile, J. P. (2019) Sports psychiatry: The mental health needs of the college athlete. *Journal of Orthopaedics and Sports Medicine*, *1*(2), 037-045.

Murphy, J., & Sullivan, P. (2021). Factors associated with coach–athlete conversations about mental health in intercollegiate sport. *International Journal of Sports Science & Coaching*, *16*(3), 509–518.

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology Research and Behavior Management*, *5*, 173–183.

<https://doi.org/10.2147>

Simons, H. D., Bosworth, C., Fujita, S., & Jensen, M. (2007). The athlete stigma in higher education. *College Student Journal*, *41*(2), 251.

Solmi, M., Radua, J., Olivola, Salazar de Pablo, G., Fusar-Poli, P., et al. (2021). Age at onset of mental disorders worldwide: Large-scale meta-analysis of 192 epidemiological studies. *Molecular Psychiatry*. <http://dx.doi.org/10.1038/s41380-021-01161-7>

United States Census Bureau. (2021). 2020 Census statistics highlight local population changes and nation's racial and ethnic diversity. <https://www.census.gov/newsroom/press-releases/2021/>

Van Raalte, J. L., Andrews, S., Cornelius, A. E., Diehl, N. S., & Brewer, B. W. (2015). Mental health referral for student-athletes: Web-based education and training. *Journal of Clinical Sport Psychology, 9*(3), 197–212.

Whitney, G., Peterson, M.D. (2019). Mental health care use in children. *JAMA Pediatric, 173*(4), 389-391. doi:10.1001/jamapediatrics.2018.5399

Wilson, C.J., Deane, F.P., Ciarrochi, J. & Rickwood, D. (2005). Measuring help-seeking intentions: Properties of the general help-seeking questionnaire. *Canadian Journal of Counselling, 39*(1), 15–28.

Wolanin, A., Gross, M., & Hong, E. (2015). Depression in athletes. *Current Sports Medicine Reports, 14*(1), 56–60. <https://doi.org/10.1249/jsr.0000000000000123>

Appendix A Synthesis Article Grid

Aurthor, Title , Sources	Purpose	Method and Procedures	Analyses	Findings	Discussion and Recommendations
<p>Leimer, A. D., Leon, R. A., & Shelley, K. (2014). Stigmas and Stereotypes: Counseling Services for Student-Athletes. <i>Journal for the Study of Sports and Athletes in Education</i>, 8(2), 121-135</p>	<p>*Examine student-athletes' attitude towards counseling services. *Examine and understand, and improve mental health and well-being, and what programs are being initiated to improve the use of counseling services.</p>	<p>* 258 subjects, both non- (66%) & student-athletes (34%) * NCAA Div I * 140 men and 118 women * 73 freshmen, 70 soph, 69 Juniors, 34 seniors, 12 other *Race: 9 Hispanics, 167 White, 75 Black, 3 biracial, 3 other, and 1 DNI *ages from 18-59 with the mean age of 20.9 years *Quantitative survey methods MEASURES: *Demographic data, incl. counseling history & 4 qualitative items re. opinions about psych services</p>	<p>They used a MANOVA, and for further investigation, chi square analyses on four specific items.</p>	<p>*Overall, student-athletes (SA) scored significantly lower than non-student-athletes (NSA) on the ATSPPHS. *SAs (Student-Athletes) had a more negative attitude toward professional psychological help. *Although significant, the men did not differ that much SA = 74.6 vs NSA = 78.8. *Four individual items were of interest. 1) SA reported more often that they do not seek help due to Time and Expense. 2) SA believe more so that Problems Should Be Kept in the Family. 3) Keeping one's mind on the job is an effective way to avoid personal issues</p>	<p>*1: Time-SAs are so busy that counseling services should come to them, with offices in the sports facility and more hours available for students on weekends and weeknights. *Cost-provided by the school and not the SA. *Open crisis hotlines. 2: Train coaches and staff to be more effective in recognizing problems and seek to address them. *Problem with anonymity for athletes as compared with NSAs in seeking help. 3: win at all costs may jeopardize a student's standing on the team who has problems. *Coaches</p>

		<p>*Attitudes toward seeking professional psychological help scale (ATSPPHS) (Fischer & Turner, 1970). * Four subscales: -recognizing the need for help, - stigma tolerance, -interpersonal openness, -Confidence in mental health practitioners</p>		<p>and problems, SAs agreed or strongly agreed while NSAs (Non-Student-Athletes) not so much. 4) SAs believe Talking with a counselor is a poor way of dealing with emotional problems as compared to NSAs. It may jeopardize my team standing and it is costly and time consuming.</p>	<p>and staff must be more accepting. 4. Develop working relationships with coaches, staff, and counselors to provide a more well-rounded experience for the SA that includes academically, professionally, and personally.</p>
<p>Hilliard, R. C., Redmond, L. A., & Watson, J. C. (2019). Differences in Stigma and Attitudes Toward Counseling Between College Student-Athletes and Nonathletes. In <i>Journal of College Student Psychotherapy</i> (Vol. 33, Issue 4, pp. 332–339).</p>	<p>Purpose: *Examine the ever-changing role of self compassion in regards to the relationship between public stigma and self stigma, * and how self stigma can factor in one's attitude towards seeking counseling.</p>	<p>*243 Participants were 146 men, and 97 women of which *99 were student-athletes. *D1- N=93 *D3- N=150 *age 18-23 * first year (n = 98) *second year (n = 68) *third year (n = 35) *fourth year (n = 33)</p>	<p>*Structural equation modeling (SEM) along with path analyses were used. They used SEM to examine goodness of fit, *Structural equation modeling is a multivariate statistical analysis technique. It combines factor analysis and</p>	<p>*Correlations between self-compassion were negatively related with public stigma and weakly with self-stigma. *Public stigma was positively correlated with self-stigma and negatively with attitudes. *Self-stigma and attitudes were negatively correlated.</p>	<p>*Researchers relied on a study by Yarnell (2015) where supposedly men have more self-compassion than women. *They may have misinterpreted this finding. Yarnell said, “don’t overestimate this difference, it’s small and dependent on ethnicity.” *Self-compassion should be emphasized more to</p>

		<p>*Fifth year (n = 9) *(82%) as White</p> <p>MEASURES: *Quantitated data methods: four different Likert scales * Scales Focused on self-compassion, self-stigma, public stigma, and attitude. Likert scales were used</p>	<p>multiple regression analysis</p>	<p>*All other correlations were nonsignificant. *They found no difference between men and women on self-compassion scores.</p>	<p>reduce the stigma associated with mental health issues. *Finally, the researchers recommend more efforts by the universities to reduce public-stigma</p>
<p>Kaier, E., Cromer, L.D., Johnson, M.D., Strunk, K., & Davis, J.L. (2015). Perceptions of Mental Illness Stigma: Comparisons of Athletes to Nonathlete Peers. <i>Journal of College Student Development</i> 56(7), 735-739. doi:10.1353/csd.2015.0079.</p>	<p>The purpose of this study was to investigate the stigma of mental health treatment of help seeking access by college student-athletes in their personal and perceived view of public mental illness compared to the non-athlete students.</p>	<p>* 304 Student Athlete Participants, *129 female and 175 males, Average age 20 * Caucasian (68%), *African American (20%), *American Indian (1%), *Hispanic, Latino or Spanish (4%), *other (7%). *Nonathletes (n = 103) * 72 women *31 men, * average age of 21 (SD = 4.33)</p>	<p>A multivariable analysis of variance *MANOVA used to explore if athletes have a higher personal experience with *MANOVA as student statues as independent *PPS score as the depend variable. * Paired samples t-test to find which had a higher rate between PPS and personal stigma</p>	<p>*Athletes had a higher level of personal stigma compared to the non-athletic group. *They also had a higher PPS score than the non-athletes. *When comparing the levels of personal stigma and PPS from the study to Eisenberg et.al (2009) samples of his college population was N= 5555.</p>	<p>The results had a positive impact on the athletic director and head coaches to address the problem. *They developed a collaborative relationship with the campus counseling center *and help arrange schedules of clinical psychiatrists to hold walk-in consulting services that coincide when the athletic building was open. *Organize psycho-education workshops</p>

		<p>years. * Caucasian (62.7%), *African American (6.9%), *Hispanic, Latino or Spanish (6.9%), *American Indian (4.9%), *Other (17.6%) *one who declined to say (1%).</p> <p>MEASURES: * Perceived Discrimination–Devaluation (PDD) Scale *12 items on agreement statement *Public Stigma *Personal Stigma *How most people view psychiatric patient/mental health patient *Personal perceived stigma *PPS (Perceived Public Stigma) *SA data in conjunction with</p>		<p>*Determine if the group of athletes in the current study differed from a larger sample of students. *A t-test showed athletes in the current sample reported more personal stigma and athletes' level of PPS was no different from that of the Eisenberg study.</p>	<p>for athletes that were tailored to their interests and their unique means. The workshop was designed to remove the stigma towards therapy. *Recommendations Develop criteria to identify whether seek help. *Understand aspects of the athletic culture and prohibit individuals from seeking treatment. *Both athletes and non-athletes would benefit from education that reduces stigma of mental illness.</p>
--	--	---	--	---	---

		<p>practice & team meetings</p> <p>*NSA, Human subject pooling, if in a physiology class awarded extra credit.</p>			
<p>Murphy, J., & Sullivan, P. (2021). Factors associated with coach–athlete conversations about mental health in intercollegiate sport. <i>International Journal of Sports Science & Coaching</i>, 16(3), 509–518</p>	<p>*Purpose: Examine coaches attitude and willingness to meet and discuss mental health issues with student-athletes and factors that influence their beliefs.</p> <p>*They hypothesized that coaches may be more likely to perform helpful behaviors when they perceive themselves as capable, when the behavior is linked to desired outcomes and/or rewards, and when the actions are expected or required within their work role.</p>	<p>*Approx. 370 coaches from numerous Canadian academic institutions received a request to volunteer and complete the questionnaires. Few did so. N = 136 participants.</p> <p>*They were requested to complete two surveys-a demographic and Theory of Planned Behavior (TPB).</p> <p>*Questions focused on coaches. The surveys measured attitude,</p>	<p>*Analyses were two regression models to determine the fit of the data for the responses on the TPB scale.</p> <p>*One was a linear regression measured the three TPB constructs- Attitude, PBC and Social Norm to help predict intentions.</p> <p>*The other is a binary logistics model to examine the interactions.</p> <p>*Chi square tests and t-tests were used between specific demographics answers and TPB scores.</p>	<p>*Findings</p> <p>* 70% of coaches strongly agreed or agreed that their role is to be involved with student-athletes’ mental health.</p> <p>*No significant association between basic demographics and intention. There was an association between intention and previous mental health training.</p> <p>*Coaches who had previous training 77 percent strongly agreed while none disagreed or were neutral.</p> <p>*For the coaches who did not have previous training, 61% strongly agreed or agreed, while 22%</p>	<p>Recommendations and discussion.</p> <p>*Coaches serves as a crucial resource for student-athletes with mental health issues.</p> <p>*The sample size was small.</p> <p>*The ratio of male to females was very uneven. Conclusion about sex difference could not be stated with confidence.</p> <p>* Responses were self-reported.</p> <p>Possibility that social desirability could have influenced the TPB.</p> <p>*No information as to conversation with student-athletes when discussing mental health issues.</p> <p>*Future researchers should investigate</p>

		<p>perceived behavioral control (PBC), social norms, and intention. *TPB questions were on a seven-point Likert scale, MEASURES: *Intention by 3 Constructs TPB survey * Attitudes- 5 questions *Perceived Behavioral Control (PBC) -7 questions * The perceived Social Norms of others- 2 questions *All used a 7-point Likert scale ranging from strongly agree at 1 and 7 being strongly disagree * A linear regression analysis measured the ability of the three TPB constructs</p>		<p>either were neutral or disagreed. Sixty-eight percent of coaches reported that they had at least one conversation with a student athlete about a mental health issue in the previous year. *Coaches with no previous mental health experience had a lower attitude score than the coaches that had an outside personal experience or event.</p>	<p>the dialogue that went on between the two. *Add more questions about social norms including perceptions of family members friends, colleagues, and peers and how important the opinion of those people is to those coaches. *The study did show the benefits of mental health training with education for all coaches.</p>
--	--	---	--	---	---

		(Attitude, PBC and Social Norms) to predict Intention			
<p>Bird, M. D., Chow, G. M., Meir, G., & Freeman, J. (2018). Student-Athlete and Student Non-Athletes' Stigma and Attitudes Toward Seeking Online and Face-to-Face Counseling. <i>Journal of Clinical Sport Psychology</i>, 12(3), 347–364.</p>	<p>Purpose: * Investigate differences in stigmatisation by others, self stigma and attitude towards online counseling or face-to-face counseling between non-athletes and student-athletes.</p>	<p>Methods: *Subjects were 202 men and women. SA=101 and NSA=101. * Both student-athlete and non-athlete groups contained 51 males and 50 females. * Caucasian 102 *African American- 51 *Subjects age range 18 to 34 *SA- M = 20.01, SD = 2.10; *NSA- M = 20.51, SD = 2.12) MEASURES: *Several questionnaires administered: 1) demographic questions. 2) an online counseling attitude scale with two subscales value</p>	<p>Descriptive statistics, a One-Way MANOVA, a repeated measures ANOVA, a multiple group path analysis, and chi square were conducted.</p>	<p>Findings: *Thirty percent of SAs sought Counseling while 15% of the NSA did not. *Both groups believed that they would find time for therapy (68%). *All were aware of campus health services (90%). *If SAs had a problem they would seek help from family, friends, significant others (75%). coaches (37%) and mental health counselors (19%). *Public- and self-stigmas between SAs and NSAs showed no differences. *Significantly higher values by both groups preferred F2F over OC.</p>	<p>Discussion: *Both groups reported very favorable attitudes toward F2F than OC. *For F2F, they placed higher levels of value, and lower levels of discomfort than with OC even though the latter had more benefits, e.g., anonymity, convenience. *Challenges of OC include developing a close relationship with clients. *This relationship is essential and accounts for 30% of the variance in client outcomes. *Therapists using OC may miss certain non-verbal cues, misread text-based communication, or be uncomfortable with technology. *As innovative approaches to OC</p>

		<p>discomfort of OC</p> <p>3) same questionnaire but face-to-face counseling attitude scale.</p> <p>4) Questionnaire - self-stigma of seeking help.</p> <p>5) Questionnaire - perception of stigmatization by others seeking help.</p> <p>6) Help seeking questions general resources and mental health professionals.</p> <p>*Participant can add in resource that helped them to share</p>		<p>*More discomfort was reported with OC than F2F.</p> <p>* As expected, Public- and Self Stigma were significantly positively correlated.</p>	<p>are developed, many of these problems may diminish.</p> <p>*Both forms of stigma prevent SAs and NSAs from seeking help.</p> <p>*More needs to be done to stress the importance of counseling,</p> <p>*Especially OC due to its availability, convenience, and anonymity.</p> <p>*With F2F, it is so easy to lose anonymity.</p> <p>*Others, such as coaches, parents, significant others should be made aware of OC and its advantages.</p> <p>*With the Covid-19 pandemic, other programs have been developed, e.g., Zoom, Microsoft team, that should improve the attitudes and performance of OC.</p>
--	--	--	--	--	--

<p>Kern, A., Heininger, W., Klueh, E., Salazar, S., Hansen, B., Meyer, T., & Eisenberg, D. (2017). Athletes Connected: Results From a Pilot Project to Address Knowledge and Attitudes About Mental Health Among College Student-Athletes. <i>Journal of Clinical Sport Psychology, 11</i>(4), 324–336. https://doi.org/10.1123/JCSP.2016-0028</p>	<p>Purpose: Report the findings of a pilot program at the University of Michigan that addresses mental health and help seeking behaviors in college student-athletes through education-based interventions and questionnaires</p>	<p>The Methods. *Participants were 626 student-athletes. *Male 176 *female 245 *unknown 231 *freshman 176 *sophomores 198 *Jr 136 *seniors 101 *5th yr 29 *unknown 11</p> <p>MEASURES: *Pre & Post Surveys PowerPoint * Changes in knowledge and attitude about mental health-SA. *2nd SA ask qualitative questions to 2 Former SA. *This was an education-based Intervention with videos</p>	<p>Analyses. SPSS and stats software to analyze pre- to post- changes. *Conducted t-tests. Split it into four categories supporting teammates, on help seeking, knowledge, stigma impaired.</p>	<p>Findings. *Sixty-two percent of the athletes reported mental health issues and their athletic performance coincided in the previous four weeks. *Student-athletes were more comfortable discussing mental health after these interviews with their teammates compared to before an intervention. *Athletes were more confident in their ability to identify teammates struggling with mental health issues after the Pilot program. *Lastly, student-athletes had more confidence in their ability to help teammates with mental health issues. *Student-athletes were more likely to seek help compared to pre-test scores. interventions.</p>	<p>Discussion. *Post surveys were assessed immediately after presentations. *A follow-up study to see how long and how the effects of the presentation lasted. *A long-term follow-up assessment would be helpful to assess sustain knowledge and attitude and change as that is the primary goal to see how student-athletes were doing. *Interventions could help shape future research efforts. The pilot study also did not include a control group that could have helped make the results stronger. *Have two groups to explore the potential effects of one group exposed to the video of an athlete from the given institution and in the other group exposed to an athlete</p>
--	---	--	---	--	--

				<p>*Positive feedback of the videos and presentation were reported. *Videos were engaging and relevant. Many (n=96) felt likely to use the information. An elevated level of engagement and interest helped with the results. Education portion was given by a mental health professional for athletic counseling.</p>	<p>from a different institution.</p>
<p>Fraley, T.A., Warner, S.M., Wilson, C., Jones, G.J., & Catalano, M. (2020). Tackling Difficult Conversations: Student-Athletes, Mental Health, and Emerging Technology.</p>	<p>The purpose of this study was to take a closer look at a pilot program that is supposed to help with mental health issues and communication skills for college athletes so that researchers can better create a program to help individuals tackle difficult conversations.</p>	<p>Method. *79 Participant, 28 men and 51 women. All were student-athletes. *The Control group had 40, *31 female and 9 males *29 white, 11 non-whites *the Mursion group had 39 participants. *20 female, 19 males *25 white, 14 non-whites</p>	<p>Analyses. The use of Quasi-experimental design was used as well as to design interactive scenarios. The use of qualitative research was used in the form of gathering information to cater to the scenarios SA deem as stressful. As well as a “structural” analytical</p>	<p>Matrices between the groups were equal with the Mursion group and the controlled group making it so that there was no significant stat to form a dependent variable for pre and post surveys. However, the researchers found significant data regarding race/ethnicity. One thing they found was there was a</p>	<p>*Bigger sample size, this will allow a *More diverse samples, *, two of the four universities had football: only two responses Mens basketball- zero, *Two programs that tend to generate the most revenue therefore they have a unique perception of stressors. *Lack of men athletes of color their sample was 77</p>

		<p>MEASURES: *a quasi-experimental design-important conversations *Before virtual simulation (VS) - qualitative data open-ended survey SA=545, for scenarios * Volunteer SA Random assigned treatment (n = 39) Murson *Control groups (n = 40). *Both pre-survey start of Fall 2018 * treatment group *5-week Mursion experience- 3 simulations, * focused on conversations regarding playing time, financial problems, stress and anxiety, and/or life after sport issues</p>	<p>approach to code for the main categories for word, sentences, or phrases in the program. Mursion was used as the immersive simulation technology for the interactive programs to allow for a conversion to happen and a safe environment for screening.</p>	<p>significate effect of perceived support from the university, athletic department, and an unwillingness to communicate. Non-white student reported lower perceived support from university then white students, on the pre-survey section. they also report less support from athletic department and a greater unwillingness-to-communicate. None of this effect influenced the Mursion group. When compares to female students a decrease in unwillingness-to-communicate in both pre- and post-surveys. Males reported an increase in unwillingness to communicate in between both pre- and post-surveys. (figure2). No Significant date between Mursion</p>	<p>females and 83 Caucasians. *The study was quantitative by design as a result there is an opportunity for qualitative follow ups which would allow for more results and data. *Lastly since this is a division one focused research, they cannot assume the results will transition to other divisions there was also no controlled group or a baseline group for mental health examination</p>
--	--	--	--	---	---

				<p>and controlled group 1 for pre- and post-survey.</p>	
<p>Cutler, B. A., & Dwyer, B. (2020). Student-Athlete Perceptions of Stress, Support, and Seeking Mental Health Services. <i>Journal of Issues in Intercollegiate Athletics</i>, 206–226</p>	<p>Purpose of this study was to look at the perception of student-athletes and their perception of seeking help, coping mechanisms, Support from coaches and some athletic staff and the stigma of seeking help. *3 different research questions. (1) SAs experience and cope with stress, (2) SA perceptions of coaches/support staff as mental health advocates, (3) differences in self-perception, perceptions of teammates regarding seeking mental health services.</p>	<p>*Request for participants was sent to 2000 student-athletes, only 158 responded. *Eight percent return rate. *The method D1 institution *One Power Five *One at group of five *One mid-major *One small D-one university *Data gathered over six months. MEASURES: *RQ1- three Dimensions on stress, five-point-Likert scale, *RQ2- Seeking help through various personal and staff, five-point-Likert-scale.</p>	<p>The questionnaires were combined with a theoretical scale that was from literature and was created on specific demands of the university they are putting into it. *Research question one (RQ1) a pair of t-tests to explore stress experienced by student-athletes among three forms of stress. *RQ2 A t-test to identify help seeking and behavioral tendencies of SA. *RQ3 t-test examined differences for student-athletes' self-perception and</p>	<p>RQ1-SA were more likely to experience stress, and stress related to a loss coping mechanisms *Stress outcomes is one of the most difficult stressors for them to manage RQ2-Student-athletes are more likely to seek non team support personnel over team support or coaching staff RQ3-SA who struggle with stress management do not view support as a significant mental health issue. *There was no relationship between stress management and confining mental health issues with a non-sport for individual. RQ4- researchers found that SA</p>	<p>Founded that technology simulations can improve and enhance interpersonal communication. This tech can be effective. Not costly, opportunity to practice in a control safe environment.</p>

		*RQ3- Seeking help and stress combination of RQ1 & RQ2, 10 factors, five-point-Likert scale	*RQ4 the procedure teammates perception of seeking help services	perceived teammate as less supportive, trusting and accepting for seeking mental health service	
Barnard, J. D. (2016). Student-Athletes' Perceptions of Mental Illness and Attitudes Toward Help-Seeking. <i>Journal of College Student Psychotherapy</i> , 30(3), 161–175. https://doi-org.brockport.idm.oclc.org/10.108v0/87568225.2016.1177421	The purpose of this study was to look at the attitudes toward mental illness and help seeking in both college students and college athletes. With a greater specification on mental health issues and different performance-related treatment plans. Like psychopathology, and between therapists and sports psychologists.	*137 individuals over three universities *First sample N=27 (SA), N=22 (NSA) *Second sample N=34 (SA), N=13 (NSA) *Third N=16 (SA), N=15 (NSA) MEASURES: • 4 scales • * 1. Evaluation's discrimination scale& person with/received mental health treatment. -Scale 7 items, 6-point likert-scale 2. social distance scale: six items measuring	Scores for the four scales for SAs and NSAs were subjected to independent t-tests. Multiple regression tests were conducted for each school. A few post hoc analyses were conducted.	Many of the findings were nonsignificant and did not support the hypotheses that SAs would devalue mental health issues more than NSAs. In fact, NSAs had a more negative outlook concerning mental health issues than SAs. Further Women SAs were more likely to seek help than male athletes.	SAs were more accepting of those who need psychological assistance. One reason for these results was because these schools had an on-campus counseling service with one school having a therapist associated with the athletic department.

		<p>attitudes towards an adult illness and asking the individuals to interact in six different situations 3.ATSPPHS - 29 items scale 0-3 *4.and complete the athletic identity measurement scale. 7 items ranked on how much they agree or disagree</p>			
<p>Van Raalte, J. L., Andrews, S., Cornelius, A. E., Diehl, N. S., & Brewer, B. W. (2015). Mental Health</p>	<p>The purpose of this research study was designed to evaluate student-athletes using a multimedia, interactive website</p>	<p>*Study 1 took 10 student-athletes, 5 male and 5 females. *In Study 2, participants were</p>	<p>*Study 1-no stat analyses. *Study 2- examined acceptability no</p>	<p>*Study 1-changes to program based on students' reaction to improve its ease of use and understanding.</p>	<p>Watching the www.SupportForSport.org program had a positive influence on SAs' mental health referral efficacy and</p>

<p>Referral for Student-Athletes: Web-Based Education and Training. <i>Journal of Clinical Sport Psychology</i>, 9(3), 197–212.</p>	<p>through SupportForSport.org . To help student-athletes gain necessary knowledge and confidence to be able to make effective mental health referrals.</p>	<p>27 athletic directors and coaches. *Study 3 used 153 student-athletes. MEASURES: *Three studies were conducted. * Study 1 was used to determine if the website was functioning as it was supposed to. *Second, 27 college coaches and athletic directors *third involved controlled field study.</p>	<p>analyses were conducted. *Study 3- Control group and Website group showed identical scores on pre intervention efforts using Welch’s t test. *Post-test comparison on self-efficacy used Wilk’s A test. Further testing used ANCOVA.</p>	<p>*Study 2- The Athletic Directors and Coaches enjoyed and believed the website to be an especially useful tool for SAs and should include the training staff. They preferred videos to reading text. They made recommendations for improvement. Study *3-SAs self-efficacy scores were significantly higher for the experimental (www.SupportForSport.org) vs. the control (www.ncaa.org/student-athletes) group post intervention. A follow-up interview found strong support for the experimental program as compared with the control program.</p>	<p>mental health referral knowledge compared to the control group of student-athletes who viewed www.ncaa.org/student-athletes program. Interacting with this program should help SAs to overcome the barriers and seek professional support for mental health issues.</p>
---	---	--	--	---	--