

An Examination of Collegiate Student Athletes Maintaining Positive Mental Health

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Emily Merrill

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Dan Raimondo

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Cathy Houston-Wilson

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Chairperson Approval

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Abstract

Student athletes who perform at any collegiate level are required to balance the roles of being both a scholar and an athlete. The stress of a college student is magnified as student athletes must plan their schedule down to the minute of each day in order to keep up with the duties in each role. Many students at the college level, athletes or not, are hesitant to seek help because of the negative perception surrounding mental health. The stigma that receiving help makes a person look weak, or identifying that they might have an issue, scares many people. The purpose of this synthesis is to review the literature on effective strategies for maintaining positive mental health for student athletes.

Chapter 1- Introduction

The National College Athletic Association (NCAA) is the governing body of over one thousand college and university athletic programs in the United States, compiling just over one hundred athletic conferences within Division I, II and III athletics (NCAA, 2020). Over four hundred sixty-thousand student athletes compete at this level. The mental health status of athletes, especially collegiate student athletes has been talked about in the news, by the NCAA and residing institutions recently due to the demands that are placed upon student athletes. Many student athletes have voiced that they have more than a full-time job when one considers the academic and athletic expectations (Culter and Dwyer, 2020). Many of these athletes suffer from mental health issues, and many of these cases (Way, 2020).

The stigma that surrounds mental health can be divided into two categories: public and self-stigma. Public stigma is an external form of stigma referring to the belief that society deems an individual possessing certain traits or behaviors as socially unacceptable or undesirable. Self-stigma is internal and refers to the individual's belief that he or she is viewed as unacceptable by society/others (Corrigan, 2004). Researchers Hillard, Redmond and Watson (2019), found that both public and self-stigma have strong negative associations with seeking help or receiving mental health treatments. Barriers to care seeking are often heightened among athletes due to a perceived stigma, or a belief, that care seeking would decrease athletic participation opportunities (Kroshus, Wagner, Wyrick & Hainline, 2019).

Speaking up about mental health struggles is one way to raise awareness. Athletes at the professional level are beginning to do this publically in hopes to encourage others to seek help.

National Basketball Association player, Kevin Love too shared his story about suffering from anxiety and depression in hopes to relate to others and spread awareness (The Players Tribune, 2020). These efforts are being promoted at the college level through The Mental Health Social Media Campaign, a week the NCAA dedicates to raising awareness, educating and encouraging the importance of breaking the stigma around mental health (NCAA, 2020). “BreakTheStigma” games and meets are declared by the athletic department for a home event to place a focus on highlighting the campaign and to draw attention to specific programming/social media activities taking place during the week. “Break the Stigma” campaign also recognizes departments that spotlight mental health to make their services known (NCAA, 2020).

Statement of the Problem

The stigma surrounding mental health causes collegiate student athletes to avoid seeking help which can lead them into situations that risk their overall health and well-being. The stressors that accumulate from being both a full-time student and athlete are linked to mental health issues. Increased academic pressure, longer playing seasons and pressure to win all impact the mental health status (Ryan, Gayles & Bell, 2018). Coaches can play an important role in creating a culture supportive of the secondary prevention of mental illness by providing a stigma-free team environment, noticing when an athlete is struggling, and encouraging care seeking from appropriate professional resources (Kroshus, et.al, 2019).

Purpose of the Study

The purpose of this synthesis is to review the literature on effective strategies for maintaining positive mental health for collegiate student athletes.

Operational Definitions

- Collegiate Student-Athlete: The bylaws put in place by the NCAA state that a student who is academically enrolled full time (12 hours) who is a part of one of their institution's varsity sports programs at the Division I, II or III level (NCAA.org, 2017).
- Mental Health: Mental health is the state of well-being of an individual in realization of his or her own potential. Its ability to make contributions to his or her community, cope with the stresses of life and work productively. (The World Health Organization, 2018)
- Stigma: Stigma involves negative attitudes or discrimination against someone based on distinguishing characteristics such as a mental illness, health condition, or disability (The National Library of Medicine, 2011).

Research Question

1. Why is there a stigma surrounding mental health issues, specifically within collegiate athletics?
2. How are different mental health stressors identified and supported?
3. What programs, if any, do coaches and athletic departments have in place to educate themselves on the topics to help their athletes?

Delimitations

The following delimitations were used for this synthesis:

1. Studies examined student athletes within the NCAA, other governing bodies were not included.
2. The age range that was reviewed is between 18 and 23, all being current age student athletes.
3. This literature review is limited to articles and research published between the years of 2010 and 2020.

Chapter Two: Methods

The purpose of this chapter is to review the methods and literature on effective strategies for maintaining positive mental health for student athletes. The studies collected for this synthesis were located using the EBSCO database from The SUNY Brockport's Drake Library. Within the EBSCO database the following databases were searched: SPORT Discus and Academic Search Complete. To meet this criterion, the articles must have been published between the years of 2010 and 2020, allowing the synthesis to have the current information available. As well as both peer and scholarly reviewed articles, these containing the most valid and quality information regarding mental health in collegiate athletics were included. Additional articles or sources chosen as a part of the literature review for this synthesis were used to provide background information and supplemental information. All articles included are cited approximately in the reference section of this paper.

To gather the articles for this synthesis, specific keywords and phrases were used to locate the most valuable articles in the databases. The first keywords were mental health and athletes, that resulted in 494 hits under the EBSCOHOST database within the SPORTDiscus search engine. Each of these were peer reviewed and published between the year 2010 and 2020. After switching the keyword athletes to college student athletes, there were 65 hits. While these articles talked about the mental health and college athletes, not all articles focused on understanding positive mental health strategies. From the 65 hits, three were selected for the critical mass based on the relevance to the synthesis. The phrase, college student athlete and mental health were used in each search paired with other words or terms to get relevant

information for this thesis. Other keywords such as stigma, support, barriers and positive were used to collect selected literature.

The next terms searched included mental health, collegiate student athletes and stigma, that resulted in 15 hits. From those 15 articles, two were selected for the critical mass. The next key words searched were mental health, collegiate student athletes and support, which yielded 31 hits, and two articles were selected for the critical mass. The next key words searched were positive mental health and collegiate student athletes, that resulted in 24 hits, and one article was selected for the critical mass.

There were four articles chosen from Academic Search Complete under the EBSCOHOST Database using the same keywords mental health and collegiate athletes. From this search, 165 articles were produced, and the 4 were chosen that were most valid pertaining to this synthesis.

The articles in the final critical mass were from the following journals: *The Journal of Clinical Sport Psychology*, *the Journal of Issues in Intercollegiate Athletics*, *the Journal of Health and Well-Being*, and *the Journal of Collaborative Family Healthcare*.

The data was analyzed after being put into an article grid to summarize the basis of each article and how it pertained to the topic of mental health issues within collegiate athletics. The studies were examined to ensure all pertinent information regarding the synthesis and research questions were answered and included in the synthesis. Themes that were repetitive throughout the process included, gaining support for athletes who are at risk and those who suffer from a mental health issue. The recommendations from the researcher's data that was presented in the critical mass formed a discussion about collegiate student athletes and stigma and stressors related to their mental health.

Chapter 3

Review of Literature

The purpose of this chapter is to present a review of literature on effective strategies for maintaining positive mental health for student athletes. In chapter three, the articles included in the critical mass will be reviewed and discussed. These articles have been categorized based upon the type of study conducted, setting and/or participants of the study as well as the main focus of the research. The following topics will be presented: stigma, stressors and support and coaches involvement.

Stigma

Stigma can be separated into two subcategories, public and self-stigma. Public stigma is an external form of stigma referring to the belief that society deems an individual possessing certain traits or behaviors as socially unacceptable or undesirable, whereas self-stigma is internal and refers to the individual's belief that he or she is viewed as unacceptable by society/others (Corrigan, 2004). Researchers Hilliard, Redmond and Watson (2019), found that both public and self-stigma have strong negative associations with seeking help or receiving mental health treatments.

Public and Self Stigma

Bird, Chow, Meir and Freeman (2018), looked at the differences of stigmatization by others compared self-stigma and how these affect student athlete's attitudes toward counseling. The study consisted of 101 college student athletes and 101 non-student athletes to see if there were different results within the two groups. Participants were given a demographic

questionnaire that was calculated by descriptive statistics. The different levels of stigmatization by others and self-stigma were determined by multiple scales including scales on attitudes towards online counseling, face-to-face counseling, seeking help, and perceptions of stigmatization toward seeking help. All results gathered on the scale were conducted using statistical analysis.

The results showed that the participants that were involved in athletics were more likely to seek professional psychological help. A third of the participants reported seeking help in the last 12 months. For the non-athletes, this number was half of that. The student athletes reported they would most likely receive support from a parent. Results showed that the majority chose a parent first, after that, a friend, then an intimate partner, or coach. A sport psychologist and a mental health professional were choices much lower on the scale. The results from the analysis of stigmatization by others and self-stigma showed there was no significant difference in the two types of stigma between the student athletes and non-athletes. The results from the stigmatization towards face-to-face counseling compared to online counseling showed that both groups sought higher value in face-to-face counseling as well as lower levels of discomfort. In the conclusion, the researchers indicated from the results that participants found it easier to form relationships in face-to-face counseling rather than online.

In other findings, Hilliard, Redmond and Watson (2019), tested the relationships between public and self-stigma and how they associate with attitudes towards counseling. This study was done on 243 NCAA student-athletes, 93 who played at the Division I level and 150 at the Division III level. 143 of these participants were male and 97 were female. The measures that were tested included questions about the demographic of the participants, self-compassion, self-stigma and attitudes. Through their use of the Structural Equation model, results showed that

public stigma had a positive effect on self-stigma and that self-stigma was negatively associated with attitudes towards counseling.

The results showed that public stigma was positively associated with self-stigma and self-stigma was negatively associated with attitudes toward counseling. The researchers acknowledged a sports release made by the NCAA (2014) four years prior to their study where several practitioners and former student athletes discussed the role of stigma discouraging help-seeking and the discussion of mental health issues. Their current study showed that the levels of self-stigma were relatively low among student athletes, but that the attitudes towards counseling were still generally stigmatized. The researchers concluded that exploring ways to reduce stigma would affect the attitudes that student athletes have toward seeking help and thus continue to reduce the stigma.

In addition, Kern, Heining, Kiueh, Salazar, Hansen, Meyer and Eisenburg (2017) reported findings on the relationship between mental health and help-seeking behaviors among collegiate student-athletes. The study was done on 626 student athletes that were given pre- and post-survey questionnaires that were to be done before and after watching a presentation given by “Athletes Connected”. This was a pilot phase of a new research and practice program made by the researchers at the University of Michigan. The presentation focused on a mental health overview as well as highlighted student athletes struggles with mental health.

The results from the surveys showed that there was an increased knowledge of mental health issues and help-seeking after the presentation was shown. Prior to the presentation over half of the participants reported that mental health issues hurt their athletic performance in the recent time prior to the study. The specific questions in the pre-survey measures on supporting

teammates, and discussing mental health issues with teammates all increased in the post survey results. The results concluded that brief contact through presentation and education on mental health may help reduce the stigma and promote help –seeking behavior.

Stressors and Support

Cutler and Dwyer (2020) researched the demands placed on student athletes and how the expectations academically and athletically affect their mental health status. Surveys were given to close to 2,000 student athletes. Of the 158 students who completed it, 37 were freshmen, 38 sophomores, 51 juniors and 32 seniors/graduate students at four Division I level universities. The schools consisted of the following: One at the Power Five level, one at the Group of Five, one Mid-Major and one small Division I school. This was done intentionally by the researchers to gain an understanding of all levels of Division I athletics. The data was collected over a six-month period as the survey was emailed out to the student athletes at each participating school. The questionnaire combined scaled items adapted from previous literature and new items based on the demands of the cooperating universities. The main topics within the survey focused on stress: outcome, loss and coping, help-seeking; from teammates, coaches and team-specific personnel and their ability to manage stress and anxiety.

The results from the surveys were gathered by descriptive statistical analysis as well as placed into t-tests to explore the differences between the student athletes. The researchers found that in general, that there were many struggles of balancing the tasks of being a student athlete and the added stress negatively impacted their experience. Within help-seeking, the results showed that student athletes were more likely to seek help from a non-team support personnel rather than team support or coaching staff. They also found that a main stressor of the student athletes was loss of their scholarship, only 40% knowing they could pay tuition without the

scholarship, which brought a heightened fear of injury. From the descriptive analysis, researchers gathered that the participants' stress directly relates to their sleeping and eating habits, stemming from performance anxiety as well as thoughts of loneliness.

In addition, Way, Coker-Cranney and Watson II (2020) collected information regarding Division I student athlete's satisfaction with mental health access and service availability to assist those struggling with mental health issues. The participants included NCAA Division I student athletes from the Mid-American, Colonial, Big 12, Atlantic Sun, and Metro Atlantic conferences. In total, 230 surveys were collected.

The results showed that 90.9% participating student athletes reported having access to on-campus mental health services and 66.1% reported access to clinical sport psychology services. Although these numbers were high, in an open-ended format, many participants made comments on how psychologists specific to dealing with athletes would be more beneficial. Due to time commitments, the student athletes have through academics and athletics and the lack of availability in campus wide services, the topic of a sport psychologist within the athletic department was mentioned in many of the responses. Other responses included shifting the discourse of mental health. Changing the way mental health is talked about and addressed with more advocacy from the student athletes and the athletic departments participants stated would help to start conversations and the stigma to diminish. Similar responses called for more interactive programming, rather than just watching a presentation. The student athletes responses indicated to researchers their willingness to talk about the topic and to give feedback in order to help others.

Similarly, Hatteburg (2020), researched stressors that often come along with being a college athlete and the social support and help-seeking behaviors that play a role in maintaining physical and mental health. Semi-structured in depth interviews were used to gain a better understanding of role related strains in and out of athletics, coping and support-seeking behaviors and their perceptions of support received. The participants came from a large Division I University in the Midwest with members from four different sports teams, two male teams and two females. A total of 56 interviews were transcribed and analyzed for common themes within their college athletic experiences.

The results from the interviews had a conclusive theme that all participants had received some sort of social support in their years as a college athlete. Institutional support, in and outside of the athletic department, was reported by 94.6% of the participants to be one of their main support systems. The leading response was that the highest level of support came from coaches, followed by academic support staff, and sport medicine staff. Another main point that many of the participants touched on during their interviews was being matched with the right person to talk to depending on the type of stress they are dealing with. Per collected results, specialized support made the student athletes more apt to talk about the hardships and stressful times they were having. Many mentioned that if it was a general school psychologist they would choose not to go. Hatteburg concluded that having a specific support system put in place for student athletes would take away the barriers of time constraints and specialization and achieve the goals that the participants suggested.

Alternatively, Goichi, Takehiro, Hirohisa, Van Raalte & Brewer (2017), examined the relationship between social support and mental health problems among male and female NCAA

college athletes. 204 student athletes participated, 105 males and 99 females from Division I and III schools. For their data collection method, the Receiving Social Support Scales for Sports Teams (Goichi, Bryant, Benavides, Espinoza & Isogai, 2016) was used. This specific questionnaire assessed the individuals' perceptions of receiving social support from their teammates. Another scale, the Providing Social Support Scales by Hagiwara et al., (2016), was a self-report measuring tool to evaluate the social support given to teammates. Descriptive statistics were calculated for both measures and t-tests were used to compare male to female student athletes.

The results showed that there were no significant differences between the male and female student athletes under social support, depression and sport helplessness. Although it did show that for female athletes there was a negative correlation that came from giving and receiving social supports in relation to depression and sport helplessness. For the male athletes, there were no differences statistically within the relationships of receiving and giving support and mental health issues.

Coaches Involvement

Tomalski, Clevinger, Albert, Jackson, Wartalowicz and Petrie (2019), described the mental health screening process that they developed to educate, access and follow up with student athletes' psychological well-being. The mental health screener was based on both the NCAA's and National Collegiate Athletic Association's (NATA's) best practice documents (National Collegiate Athletic Association Sport Science Institute, 2016). From these documents, relevant questions and topics were chosen to serve as a self-report mental health screener for the athletic departments of the student athletes. It was organized into four sections: mind, body,

performance and current health status. The screener was given out to approximately 350 student athletes who played at the Division I level across 12 sports teams. The Director of Sport Psychology gave a presentation on mental health that was both informational and interactional before giving out the screener. This screener was used on a trial basis, the information collected was used to assist the student athletes with any concerns, but was mostly used to collect results and feedback on how they could alter it to be more valuable to both the athletes and those helping them with any mental health concerns.

The results from the screening led to placing the student athletes into four categories: those with mental health concerns, substance abuse concerns, performance concerns and those with no present concerns. Those who wanted to seek help could do so within 24 hours of turning in the screening and the rest would be assessed within a 72-hour window. The results found were collected to assist student athletes, but more so to make changes to the screening process and make it as useful as possible for future athletic departments and their athletes. The researchers concluded that along with the student athletes, athletic department staff, coaches and support staff must be given the same education on mental health prevalence, stigma and help-seeking so they can understand and recognize symptoms in the athletes.

Similarly, Sullivan, Murphy and Blacker (2019), tested the mental health literacy of coaches and athletics therapists to see the results of their knowledge and attitudes towards mental health issues in hopes to maintain positive mental health within the whole athletic community. Individuals who have a higher mental health literacy have increased ability to recognize symptoms of mental health issues, increased awareness of available services and a higher likelihood to use those services (Jung, VonSternburg, & Davis, 2016). Within the study, there

were 80 participants; 24 females, 54 males, 57 coaches and 18 athletic therapists (five did not answer the question). The participants completed the Mental Health Literacy Scale (MHLS; O'Connor & Davis, 2015), a 35-item scale that assesses knowledge and attitudes toward mental health and help-seeking behaviors. The questions are answered on four or five point Likert scales with the total mental health literacy score being calculated by summing the values of each question.

The results from the assessment showed that coaches and athletic therapists had very similar levels of mental literacy, no one group a significant amount above the other. It did show the female levels were much higher than the males. Because this study was the first of its type comparing these two specific groups, the researchers compared the results to previous studies of similar beings to gain a better understanding of the evidence found. They concluded that the mental health literacy of professional staff in college sports has a closer approximation to those of the public, as opposed to health care professionals. After comparing it to community samples done by (O'Connor & Casey, 2015), they came to this conclusion: The mental health literacy of these two groups can always be improved in able to aid student athletes in overcoming barriers associated with mental health and the reluctance to seek help.

In relation, Kroshus, Wagner, Wyrick and Hainline (2019), tested coaches to see if completion of the NCAA's "Supporting Student-Athlete Mental Wellness" online module increased their mental health literacy, reduced stigma and an increase of communication and support regarding mental health. 347 coaches at the from 20 NCAA sports teams across all three Divisions chose to participate in the study, completing both the pre-and post-test surveys. The study began with question assessing demographics, attitudes about psychological help seeking,

perceived mental health literacy and behavior intentions. The online educational module followed, ending with another set of survey questions, like the group given pre-module. The “Supporting Student-Athlete Mental Wellness” module focused on the main topics of recognizing signs and symptoms of mental illness, the role a coach plays in the help-seeking process, how to identify and respond to mental health issues and emergencies, and coaches’ stigma towards their athletes receiving help.

The results concluded when comparing the pre-and post-test surveys show that the exposure to the “Supporting Student-Athlete Mental Wellness” module achieves its goal of increasing coaches’ mental health literacy and reducing the stigma of mental health help-seeking. Specifically, with the female coaches, their results showed a higher mental health literacy, lower perceived sport stigma and more supportive help-seeking attitudes compared to their male counterparts. 81.62% of the coaches who participated thought the education was useful and 77.95% would recommend it to other coaches. The researchers concluded that the module is a good start for coaches’ education on mental health, but there are more extensive programs that would need to take place to supplement it.

Summary

The purpose of this chapter was to review the literature on collegiate level student athletes, coaches and athletic personnel and mental health. The first part of this chapter identified stigma and the different stigmas that surround mental health within NCAA college athletics. The second part was based on specific stressors that are placed on student athletes, the added pressure that can cause mental health issues and as the different support systems they have to alleviate some of the stress. Finally, the third part focused on coaches’ and athletic personnel’s mental health literacy, and their role in noticing mental health symptoms and assisting and directing

student athletes to seek help when necessary. The literature that was reviewed gives insight and several perspectives toward the mental health well-being of student athletes.

Chapter Four: Results, Discussion and Recommendations for Future Research

The purpose of this chapter is to present the results of the review of literature on effective strategies for maintaining positive mental health for student 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 the mental health status of student athletes are presented.

The results of this review of literature revealed the evident public and self-stigmas that fuel mental health issues in collegiate student athletes. The student athletes at this level of play are impacted by stressors often brought about by the pressure of having to perform at a high caliber in the classroom and on the playing field. The results from the studies on the critical mass specifically outline coaches' involvement in assisting their student athletes. One of the biggest factors displayed in the results was the importance of recognizing the signs of a student athlete struggling with mental health issues. It was apparent that through educating and discussing the topic of mental health, coaches and athletic staff became more knowledgeable on how to detect that someone may be struggling and ways that they can help.

Discussion

Interpretations

As part of this literature review, three research questions were posed. The first research question was, why is there a stigma surrounding mental health issues, specifically within collegiate athletics? The results from this suggest that there is a correlation between both public and self-stigma and seeking help for mental health issues. Bird, et al, (2018) found through their research that the percentage of student athletes willing to seek help from a mental health professional was only 18.8%. That compared to the number who would reach out to a parent or a

friend first, at 77.2% and 76.2% respectively. The data gathered displayed a negative perception around seeking help, given a direct relation to the high levels of perceived public stigma in student athletes. Internal and external factors place a negative connotation around the mental health help seeking culture. An external factor the researchers discussed was the ability to seek help with the rigid schedule student athletes adhere to, 66% acknowledged that it would be possible. Other researchers found similar results on the topic of stigma. Hilliard, Redmond and Watson (2019), reported their study found that public stigma was positively associated with self-stigma and self-stigma was negatively associated with attitudes towards counseling. The results on the levels of self-stigma were lower amongst student athletes compared to previous findings, but there was still a negative association with attitudes toward counseling, indicating a continued need for the stigma to be reduced.

The second question was, how are different mental health stressors identified and supported? The results revealed that student athletes felt that they had access to help and support through resources at their respective universities. Cutler and Dwyer (2020), discussed the support from coaches and athletic personnel given to student athletes based upon perceived daily stress and coping mechanisms. Of the participants, 97% were struggling, or knew a fellow athlete struggling to maintain the student athlete balance of academics, athletics and/or social-life. Of these, 50% felt comfortable receiving support from a coach in regards to emotional support. Way, Coker-Cranney and Watson II (2020) mentioned the satisfaction of service availability on campus. They collected open ended information on specific mental health concerns, student athletes wellness and performance capability. Anxiety, depression and stress management were three of the initial codes that were most used in the responses. They also discussed that 60.7% of

participants were satisfied with the service availability in athletics, and were open to reaching out for help.

The third question posed was, what programs, if any, do coaches and athletic departments have in place to educate themselves on the topics to help their athletes? The results revealed the mental health literacy levels of coaches and athletic department staff members. Also, how their literacy increased after some type of educational program was completed. Sullivan, Murphy and Blacker (2019) found in their research that the mental health literacy of the coaches and athletic staff was relatively equal to scores seen in the general population. Within those results, they found the female participants tested had a slightly higher mental health literacy rate, specifically in the mental health issues of depression, anxiety and obsessive compulsive disorder. Kroshus et al, (2019), found in their study that only 11.64% of participating coaches had previously completed the NCAA's Supporting Student-Athlete Mental Wellness modules. The post test results showed that a fifth of the participants did not find it especially useful based on their failure to finish that survey.

Implications

The conclusions found were very similar to and/or agreed with previous research that the mental health issues within intercollegiate athletics correlate with public and self-stigma. This research discovered the importance of gaining a deeper understanding of how both stigmas affect the daily lives of student athletes and the stressors that result. A survey was sent to current student athletes on April 10th, 2020 from the NCAA, the "COVID-19 Well-being Study" (NCAA.org, 2020). It asked questions about mental distress, access to medical providers and other supporting topics to gain an understanding on the current physical and mental well-being of the student athletes. The study showed many of the same conclusions given in this research

paper. The questions given in the study can be used outside of the pandemic to obtain the physical and mental health status of the student athletes. This survey would be valuable for the NCAA to use at the beginning of each athletic season as a baseline, at the midpoint of the season as a checking point, as well as at the end, in order to make recommendations for improvement. It also would allow for more results because the NCAA database has the capability of reaching student athletes across all three divisions.

Recommendations for Future Research

In reviewing the data base on the stigma surrounding mental health and its affects on collegiate student athletes, the following limitations were noted regarding the studies under review. There was a lack of responses from the surveys included in the research, differences in the sample sizes within each study and the sizes also may have been too small or too large to make specific generalizations. Another limitation was the timing of surveys sent out to student athletes; some not during playing season, which could have altered results compared to those in season. There was also a lack of information at each of the Divisions, there is a large focus on Division I athletics and less on the other two within the NCAA. Based on these limitations and other insights related to the literature, the following recommendations for future research should be considered:

1. Administering a common online mental health survey similar to the NCAA Covid-19 Well-being Survey.
2. Research on anxiety, depression and time management and the impact on student athletes.

3. Research on how coaches, male specifically, can increase their mental health literacy through the NCAA's Supporting Student-Athlete Mental Wellness modules to be able to assist their student athletes.

Summary

Overall summary

The purpose of this literature review was to determine effective strategies for maintaining positive mental health for student athletes. Delimiting variables were used to do an exhaustive data-based search which yielded to 10 articles that were chosen for this review. These articles were then systematically used to determine the effective strategies for maintaining positive mental health for student athletes.

Research revealed that student athletes are negatively affected by the stigmatization surrounding mental health issues and help seeking attitudes. The research also showed support is administered to the student athletes in relation to the stressors of academics and athletics. Also, that through discussion and education, coaches and athletic staff can increase their mental health literacy to assist student athletes.

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Author	Title	Source	Purpose	Methods & Procedures	Analysis	Findings	Discussion/ Recommendations Research Notes - Commonalities/ Differences
Way, Coker-Cranney, Watson II. (2020)	So Many Mental Health Issues Go Unsaid Implications for Best Practice Guidelines From Student - Athletes' Perspectives About Service Availability	Journal of Clinical Psychology	Division I student athletes perceived access and satisfaction of mental health service availability	Mixed methods online survey given to student-athletes taken by voluntary participation	Level of satisfaction was determined by descriptive analysis, conditions of mental health service availability was broken down and assessed by hierarchal regressions. Coding was done on the open-ended responses	230 Division I student-athletes completed the survey, 90.9% reported of having on campus mental health services, 80% having access to mental skills consultations, 66% to clinical sport psychology services. 62% knew who to contact in a mental health emergency.	Recommendations from student-athletes included a desire for more athlete centered services, also more practitioners with training in sport psychology. Have a sport psychologist be involved with the team first, before the student-athletes have to reach out to them for help. A need for education of available services and how to engage to receive the support they need. Shift how mental health is talked about and addressed-advocacy from student-athletes and the athletic department.

Cutler & Dwyer (2020)	Student-Athlete Perceptions of Stress, Support, and Seeking Mental Health Services	Journal of Issues in Intercollegiate Athletics	Division I athletes on perceptions of stress, coping mechanisms, support from coaches and the stigma for seeking help.	Data collected over a six-month period from four selected athletic departments at different levels of Division I	T-tests were utilized to explore stress levels and help-seeking behavior. Pearson correlation was done to see how the utilization of athletic personnel correlates to the ability to manage stress.	Student-athletes were more likely to receive help from non-team support staff over coaches and other team related staff. Stress was an indicated in many of the student-athletes day to day lives but in different forms.	The mental wellness facilities available were most likely to be utilized as long as it were confidential. 50% of the student-athletes were unsure or did not think their coaching staff could offer support in an emotional crisis.
Kroshus, Wagner, Wyrick & Hainline(2019)	Pre-post Evaluation of the “Supporting Student-Athlete Mental Wellness” Module for College Coaches	Journal of Clinical Sport Psychology	Determine if the NCAA’s “Supporting student-athlete mental wellness” module increased mental health literacy, reduced stigma and provided communication/response to support	Head coaches of 20 NCAA sports teams were contacted by email, 347 coaches completed both surveys out of 9217. A block of questions followed by a module and survey were the data collecting methods.	Five variables were looked at through multilevel linear models, mental health literacy, stigma in sport, intentions on proactive culture, intentions in providing emotional support and	11% of participants had previously completed the NCAA’s online mental health module. 81% agreed that the education on the topic was useful and 77%	The exposure to the Supporting Student Athletes Wellness online module increased the mental health literacy and decreased the stigma attached to mental health help seeking. Intentions to engage in culture setting communication and referrals for struggling student-athletes

					intentions on referring struggling athletes	recommended to other coaches.	were increased after the module. Further research is needed to see how coaches will translate this into practice
Hilliard, Redmond & Watson (2019)	The Relationships Among Self-Compassion, Stigma, and Attitudes Toward Counseling in Student - Athletes	Journal of Clinical Sport Psychology	Examine the moderating role of self-compassion on the relationship between public and self-stigma, and how self stigma was associated with attitudes towards seeking counseling.	243 participants, NCAA student-athletes at the Division I and III level. Primarily first year athletes, 35% of which reported they had previously sought some sort of mental health treatment.	Division I level, participants were provided a link in a recruitment email, also posted in the psychology departments online research pool. At the Division III level, email recruitment got the student athletes to then complete a survey in person.	Public stigma was a significant predictor of self-stigma and self-stigma was a significant predictor of attitudes	The public stigma surrounding mental health and attitudes towards counseling is mediated by self-stigma. Reducing the stigma is likely to lead to more positive help seeking attitudes.

Tomalski, Clevinger, Albert, Jackson, Wartalowicz & Petrie (2019)	Mental health screening for athletes : Program development, implementation and evaluation	Journal of Sport Psychology in Action	To describe the mental health screening process developed to educate, assess and follow up on collegiate student athletes psychological well-being.	Mental health screeners were given to student athletes with questions in four sections: Mind, Body, Performance and Current Health Status	Post screening, the student athletes are placed into four groups: mental health concerns, substance use/abuse concerns, performance concerns and no present concerns. Individual follow up meetings are made according to the help the student athlete needs	The screener was administered at different points in the semester when the student-athletes may have not received the mental health education and evaluation yet which may change the results.	This process draws upon the NCAAs recommendations and best practices and been implemented into current universities athletic departments. The coaches are not given the mental health presentation, therefore they may not be able to recognize the symptoms. To be able to offer support for obtaining assistance they should be shown the same videos as the student athletes.
Kern, Henninger, Klueh, Salazar, Hansen, Meyer & Eisenberg (2017)	Athletes Connected: Results From a Pilot Project to Address Knowledge and Attitudes About Mental Health Among	Journal of Clinical Sport Psychology	To understand the mental health culture in collegiate student-athlete populations and help direct future research efforts in this area.	Survey given to varsity collegiate student athletes, 626 participants out of the total student-athlete population of around 900	Presentations on mental health in relation to student-athletes, screening of video's of struggling student-athletes, first person disclosure and open discussion with former student	Student-athletes reported that mental health issues affected their academic performance. Post survey, the results showed that the supporting	Each of the four categories of supporting teammates, own help seeking, knowledge and stigma made positive improvements following the presentations. 99% of the participants reported that the videos were engaging and relevant and

	College Student - Athletes				athletes were allotted after the pre survey followed by anonymous surveys	teammates measures increased and that the student athletes were more comfortable speaking about the topic with teammates	96% reported that they were likely to use the presented information in some form.
Hatteberg (2020)	Collegiate Athletes' Use and Perceptions of Institutional Sources of Support for Role-Related Stressors	Journal of Issues in Intercollegiate Athletics	The purpose of the study examined the extent to which athletes solicited social support from various institutional sources in coping with their role-related stressors.	Data was drawn from semi-structured interviews from a sample of collegiate athletics at the Division I level. Selected by gender and sport type	The role related stressors in question included institutional strain, performance pressures, role conflict, overload and relationships. The Sociodemographic and Sport-Related Characteristics were broken down by gender, age, race, class standing, GPA, Scholarship status and whether the	All respondents reported having some form of social support, 94.6% reported support from at least one institutional source. The support most commonly received at 80% was coaches, then Academic Support Staff at 71.4%.	The findings concluded that participants appreciated the attempt to make use of the specialized sources of institutional support to which they have access to as athletes, there was a preventative measure that would not allow for effective social support from the institutional sources. Matching sources of support to various stressors was a main point that the participants voiced was most valuable.

					sport is revenue generating.		
Goichi, Takehiro, Hirohisa, Van Raalte & Brewer (2017)	Relationships among sports helplessness, depression and social support in American college student-athletes	Journal of Physical Education & Sport	The purpose of this study was to examine the relationships between social support and mental health problems among male and female intercollegiate student athletes	204 student athletes from Division I and II institutions, 105 males and 99 females, the receiving social support scales for sport was used to measure social support from teammates.	Descriptive statistics were calculated, t-tests conducted to compare the differences from the male and female athletes and Pearson's correlation coefficients examined the relationships among receiving or providing social support.	Correlational analyses indicated that female intercollegiate student athletes there were significant correlations between receiving social support and depression and the other aspects tested while for male student athletes the correlation was not connected to depression and sport helplessness.	The findings support the hypothesis that females intercollegiate student athletes gain mental health benefits from giving and receiving social support. As for the male athletes, social support provided to or received from teammates were unrelated to mental health issues.
Sullivan, Murphy & Blacker (2019)	The Level of Mental Health Literacy	Journal of Clinical Sport Psychology	The purpose of this study is to compare the mental health	80 participants, 57 coaches and 18 athletic trainers were	There were no significant differences between coaches and	Pearson's correlations gave results on	This was the first study to compare the mental health literacy of coaches and athletic trainers.

	y Among Athletic Staff in Intercol legiate Sport		literacy of coaches and athletic trainers at the collegiate levels.	given an online survey to assess their knowledge and attitudes toward mental health and help seeking behaviors.	athletic trainers on the mental health literacy scales, but the females scores were higher than the male participants.	the relationshi ps of age, experience in the position and total experience compared to their mental health literacy scores. The results showed the literacy were significant ly correlated with age and total experience .	It did show that the mental health literacy of professional staff in intercollegiate sport approximates closer to the public rather than health care professionals.
Bird, Chow, Meir & Freeman (2018)	Student -Athlete and Student Non- Athlete s' Stigma and Attitude s Toward Seeking Online and Face- to-Face	Journal of Clinical Sport Psychology	This study investigated differences in stigmatizati on by others, self- stigma, and attitudes) toward online counseling and face-to- face counseling.	202 participants, 101 athletes and 101 non- athletes, all at a large NCAA DI school, surveys were given about the attitudes toward the value of online counseling, face to face counseling, self stigma,	Descriptive statistics were collected to investigate the difference of levels of stigmatizati on and self- stigma as well as dealing with counseling and the other three topics given	A high number of student athletes reported seeking profession al psycholog ical help compared to the non- athletes. Non- athletes were higher in reporting	Lack of time to seek help was a large barrier for the student athletes to seek help because of their rigorous schedules. Although more student athletes reported seeking help, it may be due to the greater severity in mental health issues within that group. Due to the increased

	Counseling			and help seeking.	in the survey.	that they had time in their schedule for counseling . Both groups were equally aware of the services available on campus to seek help.	access to mental health services through athletic department referrals. Further investigations of attitudes should be done with larger sample sizes across multiple institutions.
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