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Differences in Mental Health Attitudes, Symptoms, and Help-seeking Behaviors Between  
College Student-athletes and Non-athletes

An Honors Thesis submitted in partial fulfillment of the requirements for Honors in Psychology

By  
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Under the mentorship of Dr. Nicolette Rickert

ABSTRACT

This study examined differences in mental health stigma, attitudes, and help-seeking behaviors between student-athletes and non-athletes. 8 student-athletes and 231 non-athletes from a rural college in southeastern USA took an online survey, and independent samples t-tests were conducted to examine group differences. There were no statistically significant differences in any measure between student-athletes and nonathletes. However, exploratory sex analyses found females had lower stigma and used services more frequently compared to males. Participants then explained any mental health resources they utilize, with most using ‘Personal Relationships’ when needed. ‘No need’, or participants who's mental health concerns were not significant enough to intervene, was the biggest factor for why certain individuals didn't utilize these resources. Limitations include a small sample size of student-athletes, as well as generalizability since the sample was overwhelmingly female and psychology majors. Future research should address these with a more representative sample. These findings stress the importance of gender-sensitive approaches and the role of personal relationships in mental health experiences.

## **Introduction**

According to the National Library of Medicine, suicide is the second leading cause of death in college students, and the American College Health Association states that 77% of college students experience moderate to severe psychological distress (Lederer & Hoban, 2022; Turner et al., 2013). The additional obligations of student-athletes lead to stress in many; in March and April of 2022 alone, five NCAA student-athletes tragically took their own lives. The student-athlete mental health crisis is a relevant topic now more than ever, and in order to reverse this trend, research needs to understand the supports this specific population of college students needs. To get a better understanding of student-athletes mental health, we must acknowledge that they face unique challenges compared to the average student. Daily practices or conditioning, traveling for away games, occasional team meetings, or mandated study hall hours are all examples of some of the additional obligations unique to student-athletes (Gorczynski et al., 2017). Additionally, student-athletes face stressors involving athletic performance, abusive coaching behaviors, and their GPAs as the NCAA mandates a minimum of 2.0 average for athletes to remain sport-eligible (Hwang & Choi, 2016).

Athletic staff members play a big role in the day-to-day activities of college students. A 2019 study by Sullivan and colleagues sought to examine mental health literacy amongst coaches and athletic trainers. They found that although females scored slightly higher overall than males on the Mental Health Literacy scale (MHLS), athletic staff scores were similar to students' scores, and significantly lower than psychological professionals' scores on the MHL. Because of this, many athletic administrators want to hire a professional, but many are unsure what type of mental health professional to hire (Moreland et al., 2019). Furthermore, most athletes are more likely to connect with counselors possessing a history with sports than someone with no sport

experience (Moreland et al., 2019). Athletes spend a lot of time around teammates and team staff members. If neither of these groups are able to identify signs of mental health struggles, it becomes clear more research needs to be done to investigate the supports necessary to foster student-athlete success.

Therefore, the current study seeks to understand the similarities and differences between student-athletes as compared to non-athletes regarding mental health experiences, stigma, and resource utilization. First, extant literature on this topic is reviewed.

### **Student-athlete and Non-athlete Differences in Mental Health Experience and Resource Utilization**

Despite the aforementioned challenges uniquely experienced by student-athletes, the literature seems to be inconclusive on differences in mental health experiences and utilization between athletes and non-athletes. A 2019 study by Shannon and colleagues did not find any statistically significant differences between the groups in mental health self-management or one's ability to manage everyday stressors including burnout and mild depression. Another study also found no significant differences between the prevalence or severity of depressive symptoms among student-athletes and non-athletes (Gorczynski et al., 2017).

However, there are some differences in mental health stigma, as well as the utilization rates of mental health services between athletes and non-athletes. Watson (2006) found that athletes and non-athletes who chose to not utilize mental health services had some similar reasons for doing so, such as having no need, perceptions from others, or personal discomfort. However, many respondents cited different reasons for not doing so; perhaps the most notable of these was how over 12% of athletes said they did not have enough time to seek counseling, most likely due to the additional responsibilities of being an athlete (Watson, 2006). Another study

also reported this lack of time to seek services, but also found that many athletes list fear of judgment from teammates, being seen as weak, and fear of the mental health stigma as reasons to not seek professional help for their mental health (Lopez & Levy, 2013). Watson's 2005 study further found that student-athletes have less favorable views toward help-seeking behaviors and expectations toward counseling compared to their non-athlete peers. Another study similarly found athletes had higher perceived personal and public stigma regarding mental illness compared to students who are not athletes (Kaier et al., 2015). Overall, student-athletes appear to use mental health services less than non-athletes and have less favorable views toward these services.

Despite several studies finding differences between student athletes and non-athletes with regard to mental health stigma, other studies have found conflicting data. For example, one study found no stigma differences between groups, but importantly noted that student-athletes were more likely to seek non-professional (e.g., talking to a friend or parent) help than non-athletes (Bird et al., 2018), despite athletes being almost twice as likely to have received professional help in the past. Another study found no significant differences in athletes and non-athletes in terms of counseling stigmas or attitudes (Hillard et al., 2019).

## **Summary**

As noted above, there are conflicting findings among studies examining mental health differences between athletes and non-athletes. This lack of consistency within the literature makes it difficult to accommodate the student-athlete population as efficiently and effectively as possible. Notable limitations across many of these studies include samples involving only a single university, as well as many studies having an overwhelming White response rate. These are important concerns to address because these findings may not be representative of the entire

population of student-athletes found across all NCAA-affiliated schools and cannot be generalized to all student-athletes. Future research can focus on gaining samples from multiple schools at a time, as well as ensuring that the racial demographics of the sample are more representative of NCAA college athletes.

### **Current Study**

The aim of this study was to add to this existing literature and increase the knowledge we have of student-athletes and non-athletes' psychological challenges. Specifically, how student-athletes and non-athletes differ in their mental health experiences, stigma, and resource utilization compared to non-athletes. Based on previous research, this study sought to answer the following research questions:

- 1) Do athletes differ from non-athletes in their stigma about mental health in general?

*Hypothesis:* Athletes will have higher stigma than non-athletes.

- 2) Do athletes differ from non-athletes in their mental health symptoms (i.e., depression, anxiety, and stress)?

*Hypothesis:* No significant differences will be found between athletes and non-athletes.

- 3) Do athletes differ from non-athletes in their mental health literacy?

*Hypothesis:* Athletes will have lower mental health literacy than non-athletes.

- 4) Do athletes differ from non-athletes in how often they utilize mental health resources in an average month?

*Hypothesis:* Athletes will utilize mental health services less in an average month than non-athletes.

- 5) Why do individuals choose not to utilize mental health services?

*Hypothesis:* Possible responses might include: no need, lack of time, worried about perceptions of others.

Finally, another aim of this study was to explore any sex differences in these variables. No specific hypotheses were formed.

## **Method**

### **Participants**

Data were collected from 263 total participants from a NCAA Division I University in rural Georgia, United States. Participants were removed for failing 2 of the 3 attention checks (an example question would be “To ensure you’re paying attention, select ‘disagree.’”) dispersed throughout the survey or for admitting they did not answer the questions honestly and to the best of their ability, which left us with 243 students to analyze data from. The sample consisted of mostly female participants (74.5%, 18.1% male), and had an average age of 20.49 ( $SD = 3.70$ ). The ethnicity breakdown of our sample was 67.1% White, 20.2% identified as Black, 7.4% identified as Hispanic of any race, 2.1% identified as Asian or Pacific Islander, and 1.6% identified as Other. Only 8 student-athletes participated in the study, compared to 231 non-athletes, which is a notable limitation of this study.

### **Measures**

The Depression Anxiety Stress Scales (DASS-21) was used to measure stress, depression, and anxiety on a 4-point Likert scale across 21 items which were then summed (Lovibond & Lovibond, 1995). Sample questions include “I’ve found it difficult to relax” (stress), “I’ve felt like life was meaningless” (depression), or “I felt I was close to panic” (anxiety). For the current study, this scale demonstrated good reliability ( $\alpha = .92$ ).

To measure self-stigma for mental health, participants completed the Self-Stigma of Seeking Help scale, a summed 10-item questionnaire scored on a 5-point Likert scale; an example item is “If I went to a therapist, I would be less satisfied with myself.” This scale demonstrated adequate reliability ( $\alpha = .79$ ).

The Mental Health Literacy Scale (MHLS) was condensed from 35 to 18 items and was used to measure mental health literacy using a 4-point Likert scale, and an example item is “If someone became extremely nervous or anxious in one or more situations with other people (e.g., a party) or performance situations (e.g., presenting at a meeting) in which they were afraid of being evaluated by others and that they would act in a way that was humiliating or feel embarrassed, then to what extent do you think it is likely they have Social Phobia” (O’Conner & Casey, 2015). All items were summed to yield a MHLS score. The Cronbach’s Alpha level for Mental Health Literacy Scale was 0.55 which is below acceptable criteria and might be because we only used a condensed version rather than the full version of the scale as it was intended.

To measure mental health resource utilization, participants stated the number of times they utilized mental health resources in an average month as well as what resources they used (qualitatively), which was newly created and pilot tested for this study.

To measure why an individual would not seek professional counseling or support services if they had a personal issue, participants answered the prompt “Provide a reason why you would not seek counseling or support services for any personal problems or issues,” which was adapted from Watson’s (2006) study.

Finally, participants completed a demographics questionnaire targeting their student-athlete status, age, year in school, gender, sex, and race/ethnicity.

## **Procedure**



This study was approved by the local Institutional Review Board (H24058) in the Fall of 2023. Participants were mainly recruited through SONA systems, an online survey platform housed by the university which would redirect the individual to Qualtrics for the survey. Those who completed the survey through SONA Systems received 0.5 SONA research credits for course credit in an eligible psychology course. Additionally, psychology professors at the university were asked to post class announcements about the survey, and flyers were distributed around the academic building housing student-athlete services, both in an effort to increase student-athlete participants. Once participants consented to participate, they completed the quantitative and qualitative questions before providing their demographic information. Finally, a debriefing statement with contact information for the University counseling center, the phone number for the National Suicide Prevention Hotline, and an online mental health resource center for college students was provided.

### **Analysis Plan**

A series of independent samples *t*-tests were used to analyze differences between student-athletes and non-athletes on the following variables of interest: stigma, mental health symptoms (stress, depression, and anxiety), mental health literacy, and number of times they utilize mental health services in an average month. Differences between these listed variables were also compared between male and female participants to examine any sex differences. A group of trained coders used thematic analyses to code participants' responses for what specific mental health resources they typically utilize, as well as what personal barriers participants face for those who do not use these services. Furthermore, bivariate correlations between all variables were analyzed.

### **Results**

### Preliminary Analyses

Descriptive statistics including means, standard deviations, and correlations between all variables were conducted. As shown in Table 1, participants demonstrated moderate levels of psychological distress on average, as measured by the DASS-21 scale. These findings underscore the prevalence of mental health challenges among the sample population. Furthermore, the assessment of mental health literacy using the Mental Health Literacy Scale demonstrated a moderate level of knowledge and understanding regarding mental health issues. Regarding help-seeking behaviors, participants reported seeking out mental health resources an average of 2.06 times in a typical month.

**Table 1**  
*Correlations Table*

	1.	2.	3.	4.
1. Mental Health Literacy Scale Scores	—			
2. Number of Times Services are Utilized	-.09	—		
3. DASS-21 Scores	-0.06	0.04	—	
4. Self-Stigma of Seeking Help Scale	0.23**	-0.19**	0.24**	—
<i>M (SD)</i>	41.35 (5.48)	2.06 (1.03)	39.26 (11.22)	19.93 (6.36)

\*\*  $p < .01$

Significant positive correlations were found between self-stigma of seeking help with mental health literacy and DASS-21 scores in that increases in self-stigma were related to an increase in symptoms as well as in mental health literacy. Additionally, the negative correlation between self-stigma and quantity of services used indicates that as stigma increases, an individual is less likely to seek services.

### **Differences in Stigma Toward Seeking Help**

A two-tailed independent samples t-test was used to compare stigma relating to seeking help for mental health issues between student-athletes and non-athletes using participant's Self-Stigma of Seeking Help Scale scores. There were no statistically significant differences between student-athletes ( $M = 22.13$   $SD = 7.53$ ) and nonathletes ( $M = 19.84$   $SD = 6.35$ ) on their self-stigma,  $t(237) = 0.99$ ,  $p = 0.32$ .

An independent samples t-test was also used to compare sex differences in self-stigma. We found a statistically significant difference between males and females in their stigma scores,  $t(233) = 3.11$ ,  $p = .002$ , which was a medium effect (Cohen's  $d = 0.52$ ). Males ( $M = 22.61$   $SD = 6.54$ ) had higher self-stigma toward seeking help than females ( $M = 19.33$   $SD = 6.26$ ) did.

### **Differences in Mental Health Symptoms**

A two-tailed independent samples t-test was used to examine differences in mental health symptoms between student-athletes and non-athletes using their DASS-21 scores. There was no difference between student-athletes ( $M = 33.13$   $SD = 7.14$ ) and non-athletes ( $M = 39.38$   $SD = 11.32$ ) on their self-reports of symptoms or depression, anxiety, and stress,  $t(237) = -1.55$ ,  $p = 0.12$ .

Sex differences in mental health symptoms were also assessed using an independent samples t-test. No significant differences were found between male ( $M = 36.64$   $SD = 10.68$ ) and female ( $M = 39.72$   $SD = 11.41$ ) participants in their DASS-21 scores,  $t(233) = -1.63$ ,  $p = 0.10$ .

### **Differences in Mental Health Literacy**

Student-athlete differences in mental health literacy were examined by performing an independent samples t-test on the participant's Mental Health Literacy Scale scores. Mental health literacy scores were not affected by whether or not the participants were student-athletes,

$t(237) = -0.58, p = 0.56$ . No significant differences in mental health literacy were found between student-athletes ( $M = 40.25$   $SD = 8.48$ ) and non-athletes ( $M = 40.40$   $SD = 5.39$ ).

Additionally, we investigated sex differences using an independent samples t-test. No statistically significant differences were found across sexes for mental health literacy scores  $t(237) = 1.90, p = 0.06$ . Males ( $M = 42.75$   $SD = 5.94$ ) did not differ from females ( $M = 41.01$   $SD = 5.38$ ).

### **Differences in Quantity of Mental Health Resource Utilization**

Participants were asked “In an average month, how many times do you utilize mental health resources (therapist, talking to a friend about mental health, etc.)?” The number of times mental health resources were utilized did not differ between student-athletes ( $M = 2.75$   $SD = 0.71$ ) and non-athletes ( $M = 2.03$   $SD = 1.03$ ),  $t(237) = 1.96, p = 0.05$ .

Independent samples t-tests were also used to measure sex differences. There was a statistically significant difference found between males and females on how many times they typically utilized mental health resources in a typical month,  $t(233) = -3.23, p < .001$ , which was a medium effect (Cohen’s  $d = -0.54$ ). Females ( $M = 2.16$   $SD = 1.06$ ) used more mental health services in a typical month than males ( $M = 1.61$   $SD = 0.75$ ).

### **Mental Health Resources Typically Utilized**

Thematic analyses were conducted to identify the top responses for mental health resources used by student-athletes and non-athletes. 95 participants stated their most utilized mental health resource was a personal relationship such as a trusted friend, a family member, or a community leader such as a priest. An example for this theme would be “A specific mental health resource I typically utilize is friends or my mom.” Next, 69 participants reported using therapy with a wide variety of mental health professionals including counselors, psychologists,

and psychiatrists, with one participant stating “I have a therapist that I see every week and talk about all my issues.” Participants typically reported positive experiences with therapy. 62 participants stated they did not utilize mental health resources. These reasons are further explored in Table 2 of this study. 10 participants cited prescription medications as the main way they deal with their mental health, with an example being “I take prescribed medication.” 8 participants engaged in various mindfulness activities during stressful periods. An example of this theme is “I meditate when needed.”

**Table 2**  
*Themes for Typical Mental Health Resource Utilization*

What specific mental health resources do you typically utilize, if any?				
Theme	Student-athlete Count	Non-athlete Count	Description	Example Quote
Personal Relationships	1	94	Talking to a friend or family member about their mental health struggles.	“A couple of times out of the month, I will talk to parents or friends about mental health.”
Therapy	5	64	Seeing a mental health professional for therapy sessions.	“I attend therapy 1-2 times a month.”
None or N/A	0	62	Do not typically utilize mental health resources	—
Medication	0	10	Prescribed psychomedication	“I am on antidepressants and an anti anxiety medicine, so I go to the doctor once a month for a check up.”
Mindfulness Activities	0	8	Engaging in activities such as going for a walk, meditative breathing, or journaling	“I usually just breathe in and out and take time to reflect on my feelings, usually saying them out loud.”

### Reasons For Not Utilizing Mental Health Resources

For those participants who reported not utilizing mental health resources, they were also asked their reasons for why they do not utilize them. 30 participants stated they had no need to utilize mental health services, an example being “I don't see any reason to seek mental health resources. I am doing good without help because I am not facing any mental health problems.” It

is unclear whether or not participants are being truthful in this answer and may be hiding their experiences due to mental health stigma. 8 participants cited that they did not have enough time to seek out and utilize resources, for example “I usually don't have time, with having to study, do homework, and having classes spread out throughout the day.” Finally, 4 participants were unsure of the resources that are available to them. One participant stated “I'm not sure of many resources or people to go to professionally.”

**Table 3**  
*Themes for Why Individuals Do Not Seek Services*

If you answered 'none' to the previous question, please explain why.			
Theme	Count	Description	Example Quote
No Need	30	Participants' mental health issues were not serious enough to warrant intervention.	“I do not struggle to this extent with mental health.”
Lack of Time	8	Do not have enough time to seek out/utilize resources.	“I do not have time to go searching and even less time to use them.”
Unaware of Resources	4	Not sure where to begin to look for help.	“I'm not sure of many resources or people to go to professionally”.

*Note.* No student-athletes responded to this question as they all indicated using at least one mental health resource in the previous question.

## Discussion

This research aimed to evaluate disparities in stigma, symptoms, and mental health-seeking behaviors between student-athletes and non-athletes at a public, NCAA Division I college in the southeastern United States. Contrary to prior research indicating higher stigma among student-athletes, our findings revealed no statistically significant differences in self-stigma toward seeking help between student-athletes and non-athletes. Similarly, there were no discernible differences in mental health symptoms, aligning with the findings of Gorczynski and colleagues' (2017) study. The moderate DASS-21 scores underscore the prevalence of

mental health challenges among our sample population. Additionally, no disparities were observed in mental health literacy, but these moderate scores highlight the importance of ongoing education and awareness initiatives to enhance mental health literacy among individuals. No significant differences were found regarding the frequency of utilizing mental health resources per month. However, exploratory analyses concerning sex differences unveiled that females exhibited lower self-stigma toward seeking help and tended to utilize mental health services more frequently compared to males, both of which indicated a medium effect. While the average of 2 uses per month indicates some level of engagement with mental health support services, there may be variations in help-seeking behaviors influenced by various factors such as perceived stigma, accessibility of resources, and individual preferences. These results contribute to resolving previous inconsistencies in the literature on this subject. Increases in self-stigma toward seeking help were related to a decrease in mental health services usage as well as an increase in mental health symptoms, both of which were expected results. However, self-stigma toward seeking help was also associated with an increase in mental health literacy scores, which may warrant further research to investigate this correlation. Interestingly, 4 student-athletes reported participating in athletically-related activities for more than 20 hours in a typical week, which is in direct violation of NCAA Bylaw 17.1.7.1.

Most participants stated personal relationships were the primary mental health resource they use. This may indicate that participants feel much more comfortable self-disclosing to someone they know well, and emphasizes the need for resources targeted at family members and friends of those dealing with mental health issues. 5 out of the 6 student-athletes who answered our qualitative questions reported seeing the university's sports psychologist, which is a much higher proportion of individuals who are in therapy compared to non-athletes, but it is unclear

whether these athletes are mandated to see the sports psychologist by their coach or by the school. Some participants noted using mindfulness as a mental health resource, which indicates that mindfulness exercises and their effects on mental health may be an area of treatment that warrants more research in the future.

A strong majority of participants stated no need to use any mental health resources. While this indicates that participants believe themselves to have good overall mental health, possible explanations could be that some are denying mental health issues or believe their symptoms are the result of normal fluctuations in mood. With some participants citing not enough time to use resources and others being unaware of where to look for resources, there may be issues with a lack of flexible resources that can accommodate a wider variety of schedules, as well exemplifying the need for clarity and adequate exposure from the university on what mental health resources are available to students.

### **Implications**

While our hypotheses regarding mental health symptoms and the prominent themes of 'No need' and 'Lack of time' as deterrents to seeking mental health services were supported, our assumptions regarding mental health stigma, resource utilization, and mental health literacy were not corroborated by the data. There were no statistically significant differences between student-athletes and non-athletes for any of these variables. One plausible explanation for these findings is the potential reluctance of student-athletes to provide honest responses due to fear of judgment from peers or coaches, as suggested in Lopez and Levy's (2013) study. Further, it could be that the relatively small group of student-athletes surveyed in this sample have similar experiences of stigma, symptoms, literacy, and resource utilization concerning their mental



health. Nonetheless, the statistically significant sex differences suggest that colleges would benefit from targeting the mental health stigmas and lower resource utilization for male students

Moreover, the prevalent utilization of talking to a loved one or close friend as a mental health resource underscores the need for future research to assess the efficacy of this strategy among the general population. The popularity of therapy among our sample suggests that mental health professionals, with their elevated mental health literacy, may serve as more effective resources for addressing serious mental health concerns compared to untrained individuals such as parents or friends. Examining barriers to seeking services revealed that while the most common response was 'No Need,' indicating perceived healthy mental health levels among most participants, the theme of 'Unaware of Resources' suggests a need for increased efforts to disseminate information about available mental health resources. Colleges and universities can support their student-athletes and non-athletes by disseminating more information about local mental health resources, such as college counseling centers, or promoting peer support groups.

### **Limitations and Future Directions**

Several limitations warrant consideration in interpreting the findings of this study. Primarily, like many similar studies in the literature, this research utilized a sample from a single institution, limiting the generalizability of results. Future investigations should aim to incorporate diverse student populations from multiple universities to enhance the robustness of findings. Furthermore, the overrepresentation of psychology majors among study participants may have biased results, given that psychology students typically possess higher mental health literacy. This skew could influence the likelihood of seeking help from mental health professionals. Therefore, future studies should strive for more diverse participant pools.

The low response rate from student-athletes may have compromised the statistical validity of our findings to find statistically significant differences between student-athletes and non-athletes. Future research endeavors should address this by employing oversampling techniques targeted at student-athletes. Furthermore, investigating differences among various athletic teams within the student-athlete sample could provide valuable insights into disparities between solo and team sports, as well as variations in mental health during in-season and out-of-season periods.

Additionally, the positive correlation between mental health literacy and self-stigma toward seeking help warrants further investigation, and may have been present due to the condensed form of the mental health literacy scale. Finally, future research should consider controlling for prior mental health knowledge or experiences to mitigate potential confounding effects on group differences. Such efforts will enhance the accuracy and reliability of findings in this area of study.

## **Conclusion**

This study sheds light on the nuanced landscape of stigma, mental health experiences, and resource utilization among college student-athletes compared to their non-athlete peers. Despite the prevailing notion of higher stigma and lower resource utilization among student-athletes in previous research, our findings did not support such disparities. However, sex differences were found, with females exhibiting lower self-stigma and higher utilization of mental health services. These results underscore the need for tailored interventions and support systems, especially for individuals who may face unique challenges in seeking help. The study's limitations, including sample homogeneity and low participation from student-athletes, highlight the need for future research to deepen our understanding of this critical issue and inform more

effective strategies for promoting mental well-being among college athletes. Efforts to enhance mental health literacy, reduce stigma, and improve access to resources must remain priorities to ensure the well-being of all students at higher education institutions.

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