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Team Environments Influence Student-Athlete Mental Health Through Mesolevel Interactions: An Ecological Systems Perspective

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Mental health in sport has come to the forefront of NCAA initiatives amid repeated instances of diminished mental health among athletes. As student-athletes spend many hours in their team environments, it is important to consider how the team environment influences their mental health. Therefore, a qualitative research design was implemented using semi-structured interviews with 12 female student-athletes from NCAA Division I institutions to explore their mental health experiences within their team environments. Three themes were constructed from the data analysis: words matter, mental integration, and culture. The findings, interpreted through the lens of ecological system theory, suggest that mesolevel interactions, or interactions between individuals, can create a team environment that prioritizes or ignores student-athlete mental health. These findings have practical implications for coaches, administrators, and sport stakeholders regarding additional steps that need to be taken to inform the holistic care of student-athletes.

Keywords: mental health, eating disorders, team culture, ecological systems theory

The collegiate student-athlete population, nested within the overarching college student population, are faced with unique stressors such as injury and increased time demands that have nuanced implications for their mental health (Cutler & Dweyer, 2020). Although athletic participation has traditionally revolved around physical demands, scholars and practitioners are recognizing the duality of the mental and physical and its interaction affecting performance, well-being, and experience (Bader & Martin, 2019; Dijkstra et al., 2014; Waller et al., 2016). While there are well-established connections between physical movement, recreation, and exercise as a form of combatting and treating mental health issues, the relationship between mental health and elite sport is more complex (Biddle et al., 2019). Many times, elite sport moves beyond exercise and recreation to an all-consuming activity that dominates an individual's identity and leads to negative outcomes, such as susceptibility to mental health challenges (Albouzza et al., 2022; Hong et al., 2018; Turton et al., 2017).

Further, the cultural norms within sport (i.e., asking for help is appraised as a weakness) may suppress help-seeking behaviors among athletes resulting in the underutilization of mental health resources, which further exacerbates the issue (Gulliver et al., 2012; Martin & Anderson, 2020; Pinkerton et al., 1989). Therefore, participating in elite athletics carries nuanced implications for an athlete's mental health (Hong et al., 2018). This has become increasingly clear due to the tragic and rampant loss of student-athletes to suicide, further reinforcing the urgent need to understand the experiences of student-athletes and their mental health needs (Chuck, 2022).

Although mental health may manifest as an individual level experience, the environment surrounding an individual can have a significant influence on mental health (Lindberg, 2021). Student-athletes report spending significant time honing their craft within their team environment. In 2019, female student-athletes within Division I reported spending 32-35 hours per week dedicated to athletics (NCAA Research, 2019). Additionally, only 63% of Division I female student-athletes reported that they agree or strongly agree with a statement suggesting that their coaches care about their mental well-being (NCAA Research, 2019). This response decreased three percentage points from 2015, suggesting that student-athletes' mental health is increasingly disregarded within their team environments (NCAA Research, 2019).

Anecdotal evidence routinely suggests a connection between the team environment and student-athlete mental health, reinforcing the importance of examining the team environment in relation to protecting the mental health of student-athletes. For example, former head women's basketball coach at Texas Tech, Marlene Stollings, was fired amid allegations of a toxic team environment. An athlete during this time, Emma Merriweather, reported that this environment affected her mental health to the extent that she would have panic attacks on her way to practice (Schwartz, 2020). Other student-athletes reportedly developed depression and anxiety while subjected to the toxic team environment (Schwartz, 2020). More recently, former women's soccer coach at the University of Florida, Tony Amato, was fired after one season amid complaints from student-athletes about the coach's approach to fitness, eating, and weight (Huber, 2022). After an internal evaluation process, the athletic director recognized a disconnect in values and swiftly fired the coach, even with five years left on Amato's contract (Huber, 2022). Unfortunately, there are a plethora of other instances of coach abuse and toxic team environments that have resulted in the diminished mental health of student-athletes.

Relatedly, Lee and colleagues (2010) recognized that there is not one single factor driving diminished mental health. Therefore, student-athletes' mental health concerns need to be examined across different levels; thus, ecological systems theory can serve as a foundational

theoretical framework for this pursuit (Lee et al., 2010). Specifically, the team environment, and the relationships therein, are important systems to consider when examining mental health in sport. Therefore, the purpose of this study was to understand the mental health experiences of Division I female student-athletes in a team environment.

Literature Review

Literature related to the mental health of student-athletes and team climate will be reviewed. Following the review of literature, the theoretical framework used for this study, ecological systems theory, will be discussed.

Mental Health of Student-Athletes

The World Health Organization (2018) defines mental health as the "state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community" (para. 3). However, diminished mental health may result in the development of pathologies, and student-athletes are at risk for anxiety, depression, drug and alcohol use, and eating disorders (Strohle, 2017). This risk can be triggered through the multitude of pressures student-athletes face simultaneously, such as the pressure to perform athletically and academically, while also being scrutinized by the media (Andone, 2022). Whereas normal students may have the liberty to elect a mental health day and skip classes, tutoring sessions, and/or exercise for the day, student-athletes are rarely afforded that autonomy. Additionally, student-athletes place consistent demand on their bodies from training sessions and competition, resulting in a potential state of constant physical and mental fatigue (Andone, 2022). Thus, research has found that more than 30% of student-athletes experience depressive symptoms and between 30 to 50% of student-athletes have experienced anxiety, similar rates to the general college student population (Cox et al., 2017; Davoren & Hwang, 2014). Eating disorders and disordered eating, however, are one of the few mental health diagnoses thought to be more common in the athlete population than the general population (Bulik, 2002; Sundgot-Borgen & Torstveit, 2002). The National Institute of Mental Health (NIMH) defines eating disorders as, "severe disturbances in people's eating behaviors and related thoughts and emotions" (NIMH, 2021, para. 1). The American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (5th ed; DSM 5; APA, 2013) defines diagnostic criteria for several different classifications of eating disorders, with the most common being anorexia (restriction and purging behaviors), bulimia (binging and purging behaviors), and binge eating disorder (binging behaviors; NIMH, 2021). Further, although not yet to a clinical level, disordered eating behaviors refer to any abnormal eating behaviors, and are a risk factor for developing a clinical disorder. Eating disorders have a high comorbidity rate with both depression and anxiety, because, although eating disorders do manifest physically, underlying cause is many times related to re-gaining an individual sense of control when life otherwise feels out of control (Froreich et al., 2016).

A recent review of the literature has suggested rates of eating disorders in collegiate athletes may range anywhere from 1.1% to 49.2% of the collegiate athlete population (Power et al., 2020), whereas it is estimated that 9% of the U.S. population will have an eating disorder at some point in their lifetime (Deloitte Access Economics, 2020). Additionally, some subgroups within the athlete population are at a higher risk for developing disordered eating behavior. For instance, in a systematic review, authors found most research suggests athletes that participate in "lean" sports, ones where they may be a competitive or aesthetic advantage based on decreased

body mass (i.e., swimming, gymnastics, wrestling), present with more disordered eating behaviors than athletes in "non-lean" sports, ones where they may be a competitive advantage based on increased body mass (i.e., basketball, powerlifting, golf; Mancine et al., 2020).

Both male and female student-athletes, especially in lean sports, are at risk of developing an eating disorder. However, there are perhaps different manifestations of biopsychosocial symptomology based on gender. For example, in their case study of eating disorder treatment of two track and field athletes, Quatromoni (2017) found differences between the male and female student-athlete. Specifically, the female athlete's eating disorder was more related to internal factors, whereas the male athlete's eating disorder was more related to external factors, and the female athlete was more socially withdrawn than the male athlete. However, the author points to the beginning of clinical service as one of the most striking differences between the cases. The male athlete enthusiastically self-referred to professional nutrition services, but was reluctant to receive mental health services, whereas the female athlete was referred to psychological treatment (before nutritional treatment) by the athletic training staff and was reluctant to attend.

Perhaps related to the high rates of stigma for male athletes around mental health help-seeking or to the higher rates of internalized body image stigma of female athletes, research has found that female student-athletes report higher rates of eating disorders than their male counterparts. In fact, some estimates suggest almost 60% of female student-athletes are at risk for an eating disorder (National Eating Disorders Association, 2022). Greenleaf and colleagues (2009) recognized the increased pressures that female athletes face by saying, "These athletes not only face the typical social pressures to be thin, which all women in Western culture are exposed to, but they are also immersed in a social context that focuses on their bodies' appearance and performance" (p. 489). Similarly, Bryne and McLean (2001) described two types of pressure that female athletes face – the athletic pressure to have a thin physique and societal beauty expectations – that increase their risk for developing an eating disorder. Additionally, being immersed in an athletic environment can heighten social pressures related to an athlete's body through social comparison among teammates, revealing uniforms, and performance demands such as meeting a weight class requirement (Greenleaf et al., 2009). Further, the body norm for athletes, which athletes are constantly exposed to, may differ from body norms outside of athletics. These factors have contributed to the empirical findings that female athletes report eating disorders more often than their non-athlete peers (Greenleaf et al., 2009). They also have a higher risk for engaging in weight control behaviors which could lead to the development of disordered eating or an eating disorder (Anderson & Petrie, 2012; Greenleaf et al., 2009; Stand, 2007). Athletes that do engage in disordered eating or an eating disorder are then at increased risk for both physiological (i.e., decreased bone density, dehydration) and psychological concerns (i.e, depression) which can affect both performance and well-being (Greenleaf et al., 2009).

Research also suggests that student-athletes participate in high-risk binge-drinking activity as well as drug use (Druckman et al., 2015; Ford, 2007; Gill, 2009; Yusko et al., 2008). Additionally, environmental stressors seem to be impacting student-athlete mental well-being. For example, scholars have pointed to food insecurity (Mayeux et al., 2020; Poll et al., 2020), a culture that perpetuates sexual violence (Kavussanu et al., 2013), racism (Sadberry & Mobley, 2013), sexism (Kaskon & Ho, 2016), and heterosexism (DeFoor et al., 2018) as factors affecting student-athletes. Although mental health rates are similar to the general student population (Vargas et al., 2016; Wolanin et al., 2016), student-athlete mental health statistics may be underestimated, perhaps due to societal and self-stigma that leads to the population's overall low help-seeking behaviors (Drew & Matthews, 2019; Wahto et al., 2016). Sport culture is one that prioritizes toughing it out to compete even at the cost of one's physical and mental health

(Putukian, 2016). For elite athletes, then, seeking help for a mental health concern may be perceived as a weakness, and concerns over peer backlash, loss of playing time, and appearing weak lead them to make the decision to not seek needed professional help (Gulliver et al., 2016). In fact, Wahto and colleagues (2016) found in a sample of student-athletes that societal and self-stigma predicated a larger percentage of variance in help-seeking than both gender and treatment history.

The team environment may also increase mental health stigma if coaches and teammates speak negatively, or not at all, of mental health (Bissett & Tamminen, 2020). On the other hand, some research has suggested that individual sport athletes are at a higher risk of mental health issues, specifically eating disorders (National Eating Disorders Association, 2022; Pluhar et al., 2019). This finding may be due to the built-in social support system that team sport environments provide. Either way, team culture is clearly influential on the student-athlete experience, and it is important to consider the risk and protective factors for diminished mental health in these elite team environments.

Team Culture and Climate

Although sport varies among levels and location, a distinct commonality is the presence of teams within sport. Individual sport athletes and team sport athletes alike work within a team framework in the collegiate sport landscape. A team is defined as a "group that exists within the context of a larger organization, has clearly defined membership, and shares responsibility for a team product or service" (Edmondson, 1999, p. 351). However, even sports deemed individual sports operate within the framework of a team which have a distinct influence on the team members through the social norms and behaviors (Hague et al., 2021). The team environment takes shape based on its culture and climate. Team culture refers to the values and beliefs that underpin behavior and decisions (Baer & Frese, 2003). Climate refers to the day-to-day manifestations of the culture such as communication, decision making processes, leader behavior, and follower behavior (Hansen & Wernerfelt, 1989). Team culture and climate serve as important mechanisms for facilitating team effectiveness (Cole & Martin, 2018; Webster et al., 2017). In fact, Dr. Daniel Ekvall, a sport performance professional working with the Swedish National Team, referred to positive team dynamics as a potential competitive advantage for teams (Eys et al., 2019).

The coach, as the team leader, has the responsibility to establish team culture and climate. The interpersonal behavior of a coach can have distinct effects on team level variables (i.e., team cohesion, team inclusion; Hague et al., 2021) as well as individual level variables (i.e., student-athlete attitude and wellness) which can take both positive and negative forms (Kleinert et al., 2012; Reinboth & Duda, 2006). This process occurs through a dynamic set of relationships and social processes. For example, the coach-athlete relationship(s) within the team can inform and influence group level outcomes. Kleinert et al. (2012) posited, "the quality of these dyadic relationships is believed to underpin other group processes such as group cohesion, development of goals, and communication of role responsibilities" (p. 419). However, the overarching leadership style the coach takes within the group setting is also important. For example, transformational leadership has been extensively studied in organizational behavior as well as sport and shows positive relationships with distinct outcomes such as performance and well-being among followers (Hoption et al., 2014). One outcome particularly salient within this study is the effect of transformational leadership on the individual well-being. Well-being refers to the physical and psychological states emergent within an individual (Hoption et al., 2014). The physical and psychological outcomes occur simultaneously and interact with each other to affect

the overall well-being of the individual and ultimately their athletic performance. Transformational leadership has shown a positive impact on both physical and psychological well-being. This further elucidates the importance of leadership within the team environment, particularly from the coach, and its impact on student-athlete mental health and well-being (Hoption et al., 2014). For instance, Bissett and colleagues (2020) found that when the coach is open and supportive of seeking help for mental health concerns, and demonstrates this through open communication, athletes are more likely to receive professional help. Arthur-Cameselle and Baltzell (2012) found that athletes desire coaches to be supportive of athletes struggling with disordered eating and not be critical of food choice.

Therefore, the team environment poses a significant opportunity for influence on both the performance and well-being of athletes, thus making it a vital line of inquiry regarding the mental health of student-athletes.

Theoretical Framework: Ecological Systems Theory

Mental health concerns of collegiate student-athletes are influenced by societal culture, athletic culture, and team culture. Therefore, understanding elite athletes' mental health experiences through a systems perspective, rather than an individual psychological perspective more common in sport medicine, can be beneficial to identifying both risk and protective factors within these different levels of influence (Purcell et al., 2019). One such systems theory that has wide use in the mental health field is ecological systems theory. Bronfrenbrenner (1974, 1994), in a departure from the individual-focus of traditional psychotherapy at his time, proposed ecological systems theory, which conceptualizes an individual's mental health as impacted by five unique, yet interwoven systems. The microsystem includes the individuals that someone interacts with often (i.e., family, coaches), and the mesosystem captures the interactions between those individuals (i.e., a coach interacting with a student-athlete's parent). The exosystem is made up of an individual's indirect environment, such as an organization to which they belong (i.e., the NCAA), and the macrosystem makes up the societal culture surrounding an individual (i.e., sexism). The final system is the chronosystem, which considers the influence of different developmental periods, such as adolescence, or significant eras within an individual's life (i.e., COVID-19, an injury). Mental health scholars, across disciplines, argue that use of ecological systems theory provides a more holistic understanding of the client experience and thus a better framework for effective mental health intervention across systems (e.g., Carr, 2019; Eriksson et al., 2018; Lewis et al., 2021; Moore et al., 2018; Ungar & Theron, 2020) For instance, Eriksson and colleagues (2018), in their systematic review of public health research, found that the application of ecological systems, specifically because it considers system interactions, resulted in implications the authors term "most useful" to guide policy (p. 414). Similarly, Carr (2019) found in their review of the clinical practice literature that systemic-based clinical interventions are some of the most effective for children presenting with clinical issues. However, despite its relevance in the mental health literature, few studies exploring mental health in sport have a foundation in ecological systems theory.

Ecological systems theory and certain adaptations of ecological systems theory have been used to understand the general experiences of many different sport stakeholders. Scholars have used ecological systems theory as a lens for exploring work with athletes (Araujo & Davids, 2009; Bader & Martin, 2019; Horn, 2004; Krebs, 2009), coaching practices (Gilbert et al., 2006; Woodcock et al., 2011), and best practices for youth sport (Duerden & Witt, 2010; Holt et al., 2008). For example, Krebs (2009) argues that ecological systems theory is an effective framework for developing programs to enhance athlete performance, and Woodcock and

colleagues (2011) found in their interviews with parents, coaches, and sport administrators of elite youth sport athletes that the family micro-level systems, influenced by various exosystems (i.e., sport administrators), had both negative and positive impacts on the youth athletes. Further, from a sociology perspective, ecological systems theory has also been used to analyze specific social issues in sport, such as the lack of female coaches (LaVoi, 2011; LaVoi & Dutove, 2012) and the experiences of Black athletes (Cooper et al., 2016; Harris et al., 2014). Together these studies found that experiences of oppression happen across ecological systems and interventions at every level must happen to create a more socially just sporting experience.

Looking at student-athlete mental health specifically, Beasley and colleagues (2021) used ecological systems theory to understand the experiences of licensed social workers in collegiate athletic departments, finding that appropriate mesolevel interactions between the social workers and other members of the student-athletes' care teams, such as coaches, athletic trainers, certified mental performance coaches, were instrumental in providing optimal mental health care to student-athletes. Barkley and colleagues (2018) presented a conceptual model for student-athlete holistic healthcare based in ecological systems theory, in one of the few papers that used systems theory specifically to look at student-athlete wellness. They argue that student-athlete care must be considered at the intrapersonal level, the interpersonal level, the institutional level, and societal level. Additionally, in another conceptual paper suggesting a heuristic model based in ecological systems theory for early intervention of elite athlete mental health issues, the authors argue, “any mental health framework that ignores wider ecological factors runs the risk of focusing exclusively on, and potentially pathologising the individual athlete” as it would ignore the interactions of the various systems that may contribute to the presenting issue (Purcell et al., 2019, p. 49). In these ways, an ecological systems perspective can elucidate the impacts of both interpersonal and intrapersonal relationships, as well as team, organizational, and cultural influences, on student-athletes' mental health in elite team environments. Therefore, ecological systems theory can uncover multiple levels of influence on student-athlete mental health, including the team environment, and thus various ways to address the needs of student-athletes in ways an individually based psychological approach cannot. However, even with these benefits, no empirical study to date has used ecological systems theory to explicitly explore the mental health, across levels, of student-athletes.

Research points to the importance of the team environment and its promotion of mental health (Bissett et al., 2020; Henriksen et al., 2020); however, there is limited research explicitly exploring the influence of the team environment on mental health from an ecological systems perspective. Therefore, the purpose of this study was to understand the mental health experiences of Division I female student-athletes in a team environment. Thus, the following research question (RQ) guided this study: What are the mental health experiences of Division I student-athletes in the team environment?

Methods

This study is part of a larger qualitative project on female student-athletes' perceptions of psychological safety– the perception that it is safe to take interpersonal risks in team environments (Edmondson, 1999). Data included in the current study focused specifically on the mental health experiences of the participants, and all other data collected in the interview process that was not related to mental health were ultimately coded in a separate analysis.

Research Design

An interpretative qualitative research design using semi-structured interviews for data collection was used for this study (Merriam & Tisdell, 2015). Semi-structured interviews create a systematic approach to the interview and allow for flexibility within the interview to ask probing questions and delve deeper into each participant's unique experiences (Johnson & Christensen, 2017). Participants were asked about what it felt like to be a member of their team, what it felt like to make mistakes on their team, and group processes within their team environments. Example interview questions are: "Can you tell me about your team environment?" and "Can you tell me about how team members are valued on your team?" All participants chose a pseudonym at the time of interview to provide an additional measure of confidentiality protection for the participants.

Participants

Participants included 12 female student-athletes recruited through purposeful criterion sampling (Palinkas et al., 2015; Patton, 2002). The criteria for participation in the study were: (a) being a current student-athlete at a Division I, FBS institution, and (b) identifying as female. Thirteen initial participants engaged in the study; however, one participant ultimately did not meet inclusion criteria, so their data were destroyed. Prospective participants were recruited via email which was sourced from publicly available databases. A total of 3,037 potential participants were contacted with information regarding the study. The initial email was sent to their institution's assigned email address; however, the email suggested that they reply from a personal email address to further protect their confidentiality. Participants represented various sports including: swimming (5), track and field/cross country (4), softball (1), rowing (1), and equestrian (1). All participants were from two conferences within autonomous institutions. See Table 1 for full participant information.

Table 1
Participant Demographics

Demographic	**N**
Ethnicity	
Black	1
Biracial	2
White	9
Sport	
Equestrian	1
Rowing	1
Softball	1
Swimming & Diving	5
Track & Field and Cross Country	4
Class	
Junior	4
Senior	7
Graduate Student	1

Data Analysis

Prior to analysis, interview transcripts were transcribed verbatim and sent to the participants for member-checking. Member-checking allows each participant to look at the interview transcript and make any changes they see fit before moving the transcript into data analysis (Birt et al., 2016). Data analysis was guided by Braun and Clarke's (2006, 2019) reflexive thematic analysis. This thematic analysis is a six-step, interactive framework which includes the following steps: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining the themes, and producing the report. While this served as the systematic base for thematic analysis, reflexivity and interpretation were present within each step (Braun & Clarke, 2019). Reflexivity is "self-reflection by the researcher on their assumptions, biases, predispositions and actions" (Johnson & Christensen, 2017, p. 300). As a research team, we bring various experiences and backgrounds to this project and were cognizant of these throughout. Therefore, the process was "fluid and recursive rather than rigid and structured" (Braun & Clark, 2019, p. 591) in which the subjectivities of the research team were used as a resource throughout the process (Braun & Clarke, 2019).

Familiarization with the data began with the transcription process. All data from the original dataset were read thoroughly by the principal investigator (PI) and an initial round of coding was completed. At this point, all the codes of "mental health" were consolidated into a separate data set. This data set was then inductively coded by the PI and two other members of the research team individually. We then met for peer-debriefing to engage in discussion surrounding the codes we created and the main meanings we cultivated from the data (Braun & Clarke, 2019; Saldaña, 2016). Through discussion, our initial codes were compared while "questioning and querying the assumptions we are making in interpreting and coding the data" (Braun & Clarke, 2019, p. 594). Through this process, themes were created, and the initial codes were deductively assigned to a thematic bucket (Braun & Clarke, 2019; Saldaña, 2016). Each member of the research team was actively involved in coding and interpretation of the data to achieve triangulation (Tracy, 2019). Although the data were interpreted through our subjective lenses and thematic construction, we each agreed on the shared meaning within the data (Johnson & Christensen, 2017). An additional element of interpretation was gained through the use of the theoretical framework, ecological systems theory, in further interpreting the impact of environmental factors such as the team environment on individual experiences.

Positionality

Our positionality and subjectivity is recognized as a strength within reflexive thematic analysis (Braun & Clarke, 2019), however, it is important to disclose these positions to readers as well as actively engage in reflexivity of these positions throughout analysis and reporting. The PI is a former student-athlete at a Division I institution within the sport of swimming. Additionally, she previously coached swimming for five years at three different Division I institutions. Therefore, she related to the experiences of her participants and built rapport during the interview process. The first co-investigator is a licensed social worker and an expert within the space of mental health. The second co-investigator is a current undergraduate student and aspiring medical professional, thus, bringing a medical and clinical perspective to this research. We each support mental health advocacy, particularly within the student-athlete population. This further informed our analysis of the data; however, we used in vivo representation of the data to ensure that results were representative of the participants' experiences while being further enhanced through our thematic construction (Saldaña, 2016). Furthermore, we engaged in

reflexive conversations during peer debriefing to remain cognizant of how our differing positionalities relate to this research (Saladaña, 2016).

Findings

We constructed three themes from analysis: (a) words matter; (b) mental integration; and (c) culture. Subthemes are used to further depict each theme. Additionally, direct quotes from the participants are used to further illustrate the theme. At this point, we also find it important to make a note of the language used throughout the findings section. We recognize that clinical mental health and performance enhancement services are distinct, yet complementary services, that can be provided by two or more different professionals or by one professional with both mental health and performance psychology competencies (Martin, 2020; McHenry et al., 2021). Participants throughout their interviews used terms similar to "sport psychologist" to speak about each type of service, and we have kept this terminology in their direct quotes. However, when we speak about the experiences throughout the findings and the discussion sections, we specify between mental health and sport performance services to recognize the distinctive nature of each professional while recognizing the importance of both in the well-being of student-athletes.

Words Matter

Words matter depicts the strength of words, particularly when coming from someone meaningful to the participants. Words had the power to impact the participants' sense of self and experience as a student-athlete. Sub themes within words matter included positive and negative impact, which captures not only the words spoken, but also their impact on the participant. Meg specifically referenced the weight of words, particularly when her coach spoke about her teammates' bodies negatively, Meg said:

> I can't take away what he says. I can tell these other girls to ignore him all I want, but it's not going to change the fact that he said it, he believes it, and they've heard it now and it's just in their minds now.

While words may be exchanged in a moment, their impact can last far beyond that moment because they live in the minds of the people who hear these words. They compound to influence how one feels about the person speaking the words as well as about themselves and potentially others.

Positive Impact. Words had a powerful impact in many situations that led to positive outcomes for the participant. For example, Holly described her experiences struggling with maintaining her mental health throughout her collegiate career. At one point, she mentioned how an upperclassman on the team "made a comment like 'Hey look I've dealt with a lot of stuff, like depression and anxiety. If anyone ever needs to talk to anybody about that I'm here.'" Holly described how this comment stuck with her moving forward. She said, "For me that was like … I know that you understand things that I've gone through. And I understand things that you've gone through just because of you saying that. And that was this connection for me." The quick comment that a teammate made in the locker room about their own mental health showed Holly that there was someone on the team that she connected with and someone that she could talk to about mental health. Even though this was an informal and quick conversation not necessarily directed at anyone in particular, Holly clung to it and felt a connection to that teammate. Holly

went on to describe how her mental health quickly deteriorated one season and she attempted to take her life. Following the attempt, she spent time in a psychiatric hospital. Upon departure from the psychiatric hospital, she said, "I had texts from them during the week like 'Hey we're thinking about you. Hope you're doing okay.' I think I was supported pretty well." These texts came from coaches and teammates and helped her to feel supported during this time in her life. Elle also had examples of when words had a positive impact on her experience. She said that her coaches routinely brought the team together to have discussions about their team values, team issues, or even a book club discussing certain topics. Elle said the upperclassmen were particularly called upon to share experiences with mental health they may have had during previous years. She said:

> Seeing people that on the outside you may have thought everything was going perfect and then hearing them open up. It creates a better teammate connection. I think it also just kind of shows that this is very normal. It's kind of sad it's normal, but it is a normal thing that people deal with.

Although the team conversations did not always center on "positive" experiences, these conversations normalized the idea that it is okay to struggle and helped build stronger relationships among team members, ultimately leading to a positive impact.

Negative Impact. In other instances, words had a negative impact. This was particularly true when the words were about the participants' bodies or another person's body. Additionally, this was exacerbated when the negative words came from someone the student-athlete assumed to be more understanding. For example, two participants mentioned that they expected female coaches to be more understanding and aware of eating disorders and when they were not, it almost hurt more. Elle said:

> Yeah so she (coach) would make a lot of comments about peoples' bodies. Like verbatim saying "You're not hungry. You're just thirsty. You should be drinking water" … And I think that was difficult for a lot of women on my team, because she was our first female coach. And I think there was this expectation that maybe she would be a little more like understanding of things that people are going through. But not really at all.

Additionally, even if a coach may not have spoken directly about a participant's body, hearing a coach speak about a teammate's body was also harmful. Sally, a participant who trained in a dual gender program, said: "(Head coach) has told... a few men that 'You need to lose weight. You don't look good.' He's called one chubsie, in front of people, or like 'Sit up straight. You look fat.'"" Although this was not said to Sally, examples such as this caused participants to feel more aware and self-conscious of their bodies, particularly around coaches. It made them aware that the coaches were looking at their bodies with a critical eye. Mo described experiences where she heard her coaches and teammates talk about the bodies of other competitor's bodies at competitions. For instance, Mo heard her teammates make comments about how student-athletes on other teams needed to dedicate more time to strengthening their abdominals.

Negative impact also came when coaches did not separate the person from the performance. Meg described a phone conversation she had with a coach after a poor performance. She called the coach to "unpack" the race since the coach was not at the competition with her. Meg said:

> I picked up the phone and he was screaming at me and said things along the lines of like, I'm never going to succeed in (the sport), or in school, or in life because of the way that I am. He really took some digs that didn't need to happen. So that was really, really hard. I had a complete breakdown after that. I wanted to quit the sport. Wanted to drop out of college.

The aforementioned quote elucidates the impact words had, particularly when coming from a coach. These words prompted feelings of wanting to take drastic, life-altering action such as quitting the sport or dropping out of college entirely. Additionally, Meg went on to explain that this one conversation forever changed her relationship with her coach and how she viewed him. She eventually had a greater understanding of the context surrounding this conversation (Meg's teammate decided to forgo the rest of her collegiate eligibility and go professional and had just told the head coach about her decision prior to Meg's conversation with her head coach). However, these words still had a tremendous impact on her relationship with her coach from that moment forward.

The theme, words matter, suggests the importance of words. The impact ranged from positive to negative and had a lasting impact on the participants. Additionally, these words were many times not only heard, but internalized and used to inform ideologies surrounding what their body should look like as an athlete.

Mental Integration

Mental integration speaks to how the participants craved regard for mental health and an integration of mental health services into their sport experiences. Emily said, "It is an equally important part of the athletic development process. It's just as important as actual physical fitness or technique." She went on to say how she wished that mental health services were integrated within their physical training and not seen as two separate components. It was clear that this was an important issue among the participants and was widely felt. This theme encapsulates their experiences integrating the two and their advocacy efforts to de-stigmatize mental health within their own team environments. The sub-themes within mental integration include athlete advocacy and positive experiences.

Athlete Advocacy. Many participants discussed how they felt the need to advocate for mental health within their own teams. Some described how they would talk about their experiences working with a mental health professional openly in locker rooms to try to destigmatize the topic and encourage others to feel comfortable doing the same. Holly said:

> I don't ever want to feel like something could have been prevented had I spoken up and so I'm totally cool talking about it, because I recognize the help that sports psychology is for me. I know that it's very valuable help, and I would like for it to be de-stigmatized.

Holly went on to describe how she wants to speak openly about mental health in case something clicks with a teammate. She said, "I feel good sharing about it because I have that hope that if anybody... needs that sort of solidarity, that empathy about those topics that they know that I'm there." The season following Holly's stay in a psychiatric hospital, she saw tremendous athletic success, and won the NCAA national championship. Following this success, she started to receive attention surrounding both her mental health challenges the previous year and her current

athletic success. A local journalist was working on an article about her experience and asked if they could include information about her mental health in the story. She said:

> The interviewer asked me, are you okay with sharing this about your story? You don't have to talk about this in the article if you don't want. And I was like oh I don't mind because it is part of my story. I'm not ashamed of it. It can help other people.

Similarly, Elle described how some of the upperclassmen on her team talked openly in their locker room about how they see a sport psychology professional. They did this as a way to bring normalcy to seeing a sport performance or mental health professional. She said:

> When we know someone else's struggling we'll say, 'I was talking to our sport psych the other day.' Because I think sometimes especially a lot of the younger teammates are surprised to know that people are going to see a sports psych. I think they come in with this idea of that's a drastic measure and it's like no. It's not. It's not this drastic thing. It can be a very helpful regular thing to do.

Positive Experiences. The participants described droves of positive experiences with sport performance professionals and mental health professionals. Many participants spoke about how they developed an individual relationship with a mental health and/or sport performance professional within the athletic department. For example, Grace said she developed an eating disorder during her collegiate athletic career and said that while she was going through the recovery process she really relied on their professional help and support. All participants widely regarded their experiences with these professionals as a positive addition to their student-athlete experiences. When describing the impact of the relationship she developed with the mental health professional in her athletic department, Meg said, "I mean that's helped a lot. More than I could say. I don't know if I would still be on the team honestly if she hadn't been there." She went on to say how this has had a huge positive influence on her time as a student-athlete. It provided her with a space, protected by law, where she felt like she could share openly and process her relationship with her coach. Additionally, exposure to the resources of sport performance and mental health professionals was a way to shift their own perceptions of mental health and sport. Elle said:

> Something that has been really great at (institution) is the sports psychology that they've offered. Through those conversations about struggles and things like that amongst our team, the idea of seeing a (mental health professional) has become a little more normalized. I used to be like 'Oh, you only see a sports psych if you're really struggling or if you're not performing.' I think it's gradually growing into this idea that just like how I train my body, I have to train my mind too and take care of it.

Amy described how her coach brings in the athletic department's sport performance professional about one time per week to do workshops with the team focusing on different mental skill development. For example, they have explored how failure can be an important part of success when appraised appropriately as well as mental tools for managing adversity they encounter. She described these experiences as a positive source of mental training as well as a mechanism for team building.

Participants' use of the mental health and sport performance services varied; however, each participant described how these professionals were an integral resource for them during

different times of their athletic career. While mental health and sport performance services exist on the outside of the team environment, at times they were brought into the team environment or were used as a mechanism for processing experiences within the team environment.

The theme, mental integration, demonstrates the importance of mental health professionals and sport performance professionals and their accessibility to student-athletes and teams. Not only did participants describe positive experiences, but they also described a desire for more integration of mental health within their team environments and not only as a supplemental resource on the outside of a team environment.

Culture

The theme, culture, explains how the culture student-athletes are submerged in substantially affects their experiences. This includes the overarching sport culture as well as their more local team cultures. This theme encapsulates what they felt like the norms and expectations were in these cultures. Although the participants may have recognized the toxic elements of these cultures, they many times did not feel like they had the power to change them. The sub themes include sport culture and team culture.

Sport Culture. The participants spoke to expectations they felt as student-athletes or as athletes within their specific sport culture. Many times these cultural norms and expectations contributed to the mental health challenges they may have experienced or the perception that you should not need to seek help as an athlete. For example, Emily discussed the overarching perception of mental health in sport. She said, “Not valuing mental health it's a bigger idea or concept that I've noticed. A mentality among the coaches. I don't think they value how much psychological factors or psychological health can impact athletic performance.” Additionally, she spoke about how she thinks coaches are weary of these resources because they put 'ideas' into the heads of their student-athletes that are not their own. It was an element of control that coaches were reluctant to relinquish, because they feared it may negatively impact the performance of their student-athletes. When speaking about the culture of her sport more specifically, Elle said, “I feel like I'm just shitting on running, but I do think like running as a sport …. the running community as a whole can be really toxic.” Additionally, Mo described the rigid body expectations she felt as a student-athlete in her sport. She said:

> In the sport of track and field, you're expected to be cut like a Greek god and goddess … Sprinters are supposed to look a type away, certain jumpers and pole vaulters, distance throwers. Everyone is expected to look a type of way.

These expectations did not allow for variation in acceptable bodies within the general sport culture and judgements were tied to appearance rather than actual physiological tests of fitness or performance. Mo described how a student-athlete on another team with a body type outside the norm won a conference championship the previous season. She said that there was continual discussion from her coaches and teammates about how this student-athlete needed to lose weight, despite her winning. There was even a group text going around the team about this student-athlete and her weight. Elle further described the phenomenon of a rigid body appearance. She said her coaches believed “fitness was only correlated with when people had lost some weight and became more toned. It wasn't correlated with actually racing better. It was purely based on a physical look.”

It was clear that mental health was not a priority within the overarching sport culture and it was still a taboo topic. Additionally, the expectations and norms within particular sports could trigger particular mental health challenges such as eating disorders or body dissatisfaction.

Team Culture. The team culture directly impacted the participants' experiences and shaped how mental health was framed within their daily environment. The team culture either served as a mechanism that de-stigmatized mental health or it further stigmatized mental health. Many of the participants described the role coaches had in framing mental health on their teams. Although some student-athletes advocated to destigmatize mental health in their own locker rooms, they felt like the perception of mental health in the team culture was dependent on the head coach. Holly described how she felt like coaches mentioned the mental health resources within the athletic department to simply check a box rather than to strive to really help. This further reinforced the taboo nature of mental health on their team. Holly said:

> When it comes to sports psychology resources, I don't feel like that's advertised enough on our team. It's just kind of like when something happens it's like "Okay, you guys know that sports psych is there if you need it," but I don't think that there's ever like the conscious, "Hey does anybody feel like they need it? Do you know who to talk to?" It's kind of just like thrown out there as like okay, I mentioned that. Check .... I feel like a lot of people on our team could benefit from sports psychology resources, but since so few people, at least that I know of, take advantage of them I don't want to say it feels taboo, but it's not normalized.

Holly also described how there were other instances of serious mental health issues on her team, some as severe as suicide attempts. While the coaching staff did address this, she felt as though it was addressed abruptly rather than with genuine concern and compassion. It was quickly mentioned in a team meeting that the person was recovering in a hospital. Even though there were repeated instances of suicide attempts on her team, she felt that there was still a reactive approach to mental health. Her coaches discussed the issues as they came rather than trying to proactively connect student-athletes to resources. Additionally, Meg described how there was a culture of eating disorders within her team culture. She said:

> There are girls on the team that are consistently struggling with (disordered eating)...I don't think I could be diagnosed with an eating disorder, but I've had like a ton of anxiety about it all throughout college, and I think that's something that I'm going to work my way through, especially post college athletics just the whole reminder that being lighter does not equal faster or healthier.

Meg went on to describe how this culture derived primarily from the head coach who constantly asked student-athletes about their weight and blamed any poor performance on the athlete's weight.

The participants described coaches as integral persons to either normalizing or stigmatizing mental health within their team cultures. The team culture that was created then influenced how they viewed seeking mental health resources.

Discussion

The purpose of this study was to understand the mental health experiences of Division I female student-athletes in a team environment. Our findings further support Bissett and colleagues (2020) assertion that sport experiences are mediated through their environments, with various influences from each system of ecological systems theory (Bronfrenbrenner, 1974, 1994). Therefore, sport is not inherently healthy and positive. Rather, depending on the leader and the culture created, sport has the potential to facilitate healthy and positive outcomes for student-athletes, including fostering their mental health, or negative outcomes, including contributing to a culture of diminished mental health.

Importance of the Coach

At the microlevel, participants pointed to the importance of their individual relationships with teammates and coaches. Relationships with teammates appeared to be a protective factor for the participants' mental health, either through having positive role models, being positive role models to younger student-athletes, or through positive social support. However, direct interactions with coaches had both positive and negative impacts on participants' mental health. Some participants even described a coach's recognition of mental health and the dissemination of information surrounding mental health resources as performative rather than genuine. When coaches mentioned mental health resources, particularly in times of crisis (i.e., suicide attempt of a student-athlete within the team), student-athletes perceived this to "check a box" and then abruptly move on to "real coaching" and "what really matters." This perception continued to stigmatize the use of mental health resources within the team environment, thus having a direct impact on the under-utilization of mental health resources and its subsequent impact on individual experiences of mental health. Further, this demonstrates that although some coaches are talking about mental health with their teams, these discussions, based on how they are perceived, may be further stigmatizing mental health in their team environments. Therefore, coaches should be intentional in their communication when discussing mental health within their team environments.

Interestingly, it seemed that mesolevel interactions, or interactions between microsystems, were particularly important in the team environment. When participants observed coaches making negative comments about teammates' bodies or observed that the coach does not interact with the mental health and sport performance professionals on staff, they believed the coach encouraged a "culture of eating disorders." This supports other research that suggests observing coaches' reactions related to mental health can either encourage or discourage help-seeking behavior (Bisset et al., 2020; Gulliver et al., 2012). Conversely, observing positive interactions, particularly between teammates speaking openly about mental health and eating disorders, encouraged participants themselves to speak openly and even seek professional help. However, outside mental health professionals many times provide services in a reactive sense. Therefore, mental health professionals and certified mental performance consultants (CMPCs) housed within athletic departments should work collaboratively with coaches to ensure their team cultures are proactively fostering an environment that is conducive to positive mental well-being among the student-athletes. This would allow mental health professionals and CMPCs to focus on *enhancing* the well-being and experiences of student-athletes. Creating these positive mesolevel interactions between coaches and mental health and sport performance professionals has also been identified as imperative for mental health professionals to be able to provide the most effective mental health services to student-athletes (Beasley et al., 2021). Therefore,

coaches should prioritize developing collaborative relationships with mental health and sport performance professionals on staff and making these relationships visible to the student-athletes (i.e., inviting the mental health professional to speak at practice) as well as consistent, rather than a one-time introduction at the beginning of the season. This necessitates mental health and sport performance professionals working with and through the coaches to promote mental health on athletic teams rather than only approaching mental health interventions with athletes.

Thus, mesolevel interactions related to mental health are important to creating a team culture that either prioritizes, or does not prioritize, mental health. Therefore, participants felt as though true change within the team culture surrounding mental health was dependent on both microlevel and mesolevel interactions of coaches.

Importance of Team Environment

While there are commonalities within the overarching sport culture, the team environment and leadership therein can choose to reinforce these or contradict these socially constructed norms. Therefore, at the exolevel, team environments are particularly important in framing and addressing mental health (Bissett et al., 2020; Henriksen et al., 2020). Henriksen and colleagues (2020) posited, "An elite sport organization or environment (e.g. structure, personnel, and culture) does not *cause* mental health problems per se. Individuals respond differently to different environments. The environment can, however, nourish or diminish athlete mental health" (p. 557). While coaches may intend to support the mental health of their student-athletes, they may lack direction regarding what behavior is necessary to provide this support. Therefore, our findings reinforce the call for evidence-backed coach education regarding how to foster team cultures that support mental health and wellness among student-athletes (Bissett et al., 2020) as well as increase mental health literacy–the ability to understand mental health information and apply it for stigma reduction and help-seeking efficacy (Kutcher et al., 2016)—among all sport stakeholders (Schinke et al., 2018).

Specifically, findings from this study reinforce many of the coach target behaviors coded as primary prevention efforts established by Bissett and colleagues' (2020) work. A systematic approach within athletic departments, coach associations, and coach education programs should be taken to ensure coaches are informed and empowered with tools to foster a team environment that is conducive to positive mental health outcomes among athletes. This shift in team and organizational cultures (i.e., exolevel) may be a tangible place to begin shifting broader sport culture (i.e., macrolevel).

Sport Culture and Gendered Expectations

The findings in the theme "culture" speak to the importance of the macrolevel influences on the mental health of student-athletes, and further support the need for a cultural shift within sport. Scholars have suggested that sport is a masculine space that discourages expressions of femininity (Coakley, 2017). The female athletes in this study clearly experienced the two types of cultural pressure suggested by scholars (Bryne & McLean, 2001; Greenleaf et al., 2009), the pressure to look a certain way based on societal expectations and the pressure to look a certain way for athletic performance. Interestingly, then, the participants clearly had gendered expectations for coaches and their understanding of mental health and eating disorders. For example, although participants expected female coaches to understand the female athlete experience, they then would describe experiences that contradicted these expectations. Although

this data was elicited from the perspective of the student-athlete, this can potentially be explained by pressure female coaches feel to "fit into" the hegemonic masculine culture of sport. Therefore, to be accepted into the culture and treated similarly as male coaches and have opportunities similar to male coaches, the female coaches need to adapt to societal male expectations (Siegele et al., 2020). This does not allow for flexibility of leadership expression to meet the needs of the student-athlete. Rather there is a prescribed formula that coaches may feel they need to adapt to rather than the flexibility to coach and lead based on the needs of their student-athletes as well as their authentic self-expression (Siegele et al., 2020).

Furthermore, participants described instances when male head coaches asked their female assistant coaches to talk to the female student-athletes about eating behaviors. It appears the male head coaches felt like it was only appropriate for women to speak with women about their bodies and nutritional needs. Additionally, there were instances when male coaches addressed male athletes about their bodies with decreased levels of sensitivity. These examples further reinforce notions of hegemonic masculinity at the macrolevel that seeps into manifestations of hegemonic masculinity in team environments at the exolevel. These examples have implications for both men and women in sport. For example, the perception that men are insensitive to body image is misguided (DeFeciani et al., 2015). Although the male student-athlete population may have less reported instances of disordered eating, eating disorders, and negative body image, this may be explained by their conformity to hegemonic masculinity and the influence of the sport culture equating help-seeking to weakness rather than the absence of these issues (Eichstadt et al., 2020). Therefore, when coaches make insensitive comments to male athletes regarding their bodies because there is an expectation that male athletes do not experience disordered eating, these comments may be internalized and have serious mental health implications that go unaddressed.

Overall, the macrolevel cultural expectations of sport—the expectation for an athletes' body to look a certain way and the view of seeking help as a sign of weakness–influenced the exolevel, mesolevel, and microlevel systems and thus participants' individual mental health experiences.

Implications

The findings of this study underscore theoretical implications for the use of ecological systems theory in sport management literature to understand athlete wellness as well as practical implications for sport practitioners.

Theoretical Implications

This study is one of the first to empirically explore student-athlete mental health from an ecological systems perspective, despite the theory's use in the broader mental health literature. Our findings suggest that student-athletes are indeed impacted by multiple system levels, as proposed by recent conceptual models (i.e., Barkley et al., 2020; Purcell et al., 2019). In particular, our findings suggest the specific importance of mesosystem interactions (i.e., coach to mental health practitioner), especially in creating a culture of eating disorders; yet attention to this system has been somewhat absent in other sport literature using ecological systems theory. Tellingly, Woodcock and colleagues (2011), in their application of ecological systems theory to youth sporting experience, neglect analyzing specific mesolevel interactions and instead suggest it as future research in lamenting, "research in this area (mesosystems) remains scarce" (p. 441). Beasley and colleagues (2021) did suggest the importance of mesolevel interactions to promote the use of mental health services in their analysis of interviews with social workers employed in

collegiate athletic departments, however this study did not have a specific focus on the athletes themselves. The absence of mesolevel interactions is also starkly apparent in ecologically based conceptual models of student-athlete mental health. Purcell and colleagues (2019) offer their model of early intervention for student-athlete mental health, which includes the microsystem, exosystem, and macrosystem, but do not include the mesosystem. Barkley and colleagues (2020) provide a social-ecological model that includes the athlete to health care provider relationship (microsystem), the campus community (exosystem) and societal (macrosystem). In contrast to these conceptual models, however, the findings of the current study support the theoretical importance of the mesosystem.

Thus, we suggest that mesolevel interactions are in fact one of the most important systems in creating a team environment that either supports or ignores mental health. Thus, the mesolevel system needs to be considered in future research exploring elite athlete mental health. Overall, our study supports the theoretical use of ecological systems theory to understand elite athlete mental health and highlights the importance of including the mesosystem as its own system, rather than collapsing it into the microsystem or exosystem, as previously done in conceptual models of student-athlete wellness.

Practical Implications

This research also carries practical implications for professionals working within collegiate sport. First, coaches need education surrounding the importance of mental health as well as how to handle instances of diminished mental health among student-athletes. There was apparent consensus among participants regarding a lack of satisfaction with the regard for mental health and behavior and communication surrounding this topic. However, how should this be handled? And who is responsible for educating coaches on such issues? An opinion article, written by Anna Heller, current assistant coach for the swimming and diving team at the University of Arizona, said, “No one has prepared or properly educated us on adapting to the holistic needs of our student-athletes (as well as our own needs). Those of us on the front lines need help, education, and support” (Heller, 2022, para 13). Therefore, coaches may want to support their athletes in these ways but not know how. Organizations, such as the NCAA, athletic departments, and coaches’ associations, need to provide support, resources, and education surrounding how to cultivate team environments that holistically nourish their student-athletes.

Additionally, while the mental health of student-athletes may be outside of the scope of a coach’s competencies, it is important for coaches to understand that the team environment they create can facilitate student-athlete wellness. Therefore, even though coaches do not have the background and training of a licensed mental health professional, they need to display adequate mental health literacy and understand the tenants of a healthy team environment. Attending to the needs of student-athlete mental health cannot be left solely on mental health professionals. Kenriksen and colleagues (2020) posit that mental health is everyone’s business. They said:

> Everyone in a sport organization who intersects with athletes, including coaches, sport psychologists, medical staff, managers, dual career support providers, and other integrated support team members, has a responsibility to be aware of the person behind the performer, including their mental health status. (p. 558)

It is equally important to have one key person, or a few key people, systematically approaching mental health initiatives within an organization (Henriksen, 2020). This provides a

level of accountability and foresight for attending to the mental health needs of student-athletes and could manifest as a mental health committee within the athletic department or a senior athletic administrator who oversees mental health support services. However, this does not negate the role that everyone else (namely, coaches) play in supporting student-athlete mental health. Therefore, while managing the mental health of student-athletes is not necessarily a coach's responsibility, they do have responsibility to cultivate a healthy team culture that supports and promotes mental health (Henriksen, 2020).

Additionally, organizations need to be cognizant of simply prescribing rules (i.e., coaches inform athletes of mental health resources in a team meeting). Rather, education should be used to inform coaches and actively shift their ideologies surrounding the importance of recognizing mental health as a vital component to athlete well-being as well as performance. Rather than viewing it as a dichotomous choice between athlete wellness and athlete performance, coaches should understand the ways in which wellness may aid performance. Schinke et al. (2018) stated, "athletes' mental health is seen as a necessary basis for efficient practice and competition performances within performance psychology" (p. 632). While Henriksen et al. (2020) wrote, "Athletes with good mental health stand a better chance of performing well, particularly over the long term, and have reduced risk of experiencing career-ending issues. At the same time, sound mental health is not a prerequisite for performance" (p. 556). Therefore, coaches can both nourish their student-athletes' mental health through a healthy team environment, while also promoting peak performance athletically.

Conclusion

This study examined the mental health experiences of 12 female student-athletes within their team environments. Three themes were constructed: (a) words matter, (b) mental integration, and (c) culture. Interpreting these findings through ecological systems theory provided a greater depth of understanding on how team environments, heavily created by mesolevel interactions, influence the mental health, and specifically the development of disordered eating behaviors, of female student-athletes.

There are limitations within this research that should be acknowledged. First, the participant sample was weighted more heavily toward individual sport teams. Furthermore, speaking about mental health experiences is difficult, therefore participants may have chosen to not divulge important experiences during their interview. This is particularly likely due to sport culture where mental health is still heavily stigmatized. Therefore, participants may not even recognize some behaviors as influential on their mental health or problematic at all as it has been normalized within sport.

Further research is needed to explore the experiences of the mental health of coaches within the NCAA. Many coaches are former athletes, and therefore, may be simply replicating the experiences they had as athletes, which likely were devoid of any support or discussion surrounding mental health. Additionally, further research is needed to explore the long-lasting impact collegiate sport may have on an athlete's mental health beyond their sporting experience. This is an important area of exploration, particularly when examining team environment, because an athlete's mental health may shift once they remove themselves from the team environment and overarching sport culture. However, student-athletes may also internalize the ideologies present within the team environment and/or culture which they may carry with them even after they exit the environment. Additionally, further research is needed with CMPCs and mental health professionals regarding their impression of mental health literacy within their athletic departments and mechanisms for incorporating mental health services into team environments.

These findings of this study, however, can guide practical implications for sport stakeholders to better understand what athletes need from their coaches and team environments to support their mental health. Overall, this study further reinforces the importance of coach education regarding fostering healthy team environments through appropriate mesolevel interactions that prioritize the mental health of their student-athletes.

References

Albouza, Y., Chazaud, P., & Wach, M. (2022). Athletic identity, values and self-regulatory efficacy governing hypercompetitive attitudes. *Psychology of Sport and Exercise, 58*, 1-9. https://doi.org/10.1016/j.psychsport.2021.102079

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th Ed.). American Psychiatric Publishing.

Anderson, C., & Petrie, T. A. (2012). Prevalence of disordered eating and pathogenic weight control behaviors among NCAA division I female collegiate gymnasts and swimmers. *Research Quarterly for Exercise and Sport, 83*(1), 120–124. https://doi.org/10.1080/02701367.2012.10599833

Andone, D. (2022, March 13). *Stanford soccer star's death renews questions about student-athletes' mental health. The pressures they face present distinct challenges, experts say.* CNN. https://www.cnn.com/2022/03/13/us/student-athlete-mental-health-challenges/index.html

Araujio, D., & Davids, K. (2009). Ecological approaches to cognition and action in sport and exercise: Ask not only what you do, but where you do it. *International Journal of Sport Psychology, 40*(1), 5-37. https://psycnet.apa.org/record/2009-04771-002

Arthur-Cameselle, J. N., & Baltzell, A. (2012). Learning from collegiate athletes who have recovered from eating disorders: Advice to coaches, parents, and other athletes with eating disorders. *Journal of Applied Sport Psychology, 24*(1), 1–9. https://doi.org/10.1080/10413200.2011.572949

Bader, C. M. & Martin, S. C. (2019). Sport psychology considerations in intercollegiate athletics in the United States. In E. O. Acevedo (Ed.), *The Oxford encyclopedia of sport, exercise, and performance psychology*. Oxford University Press.

Baer, M., & Frese, M. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior, 24*(1), 45–68. https://doi.org/10.1002/job.179

Barkley, L., Taliaferro, L. A., Baker, K., & Garcia, J. (2018). The holistic athletic healthcare model: Addressing the developmental, social, and cultural needs of collegiate athletes. *Journal of Higher Education Athletics & Innovation, 1*(3), 26-47. https://doi.org/10.15763/issn.2376-5267.2018.1.3.26-47

Beasley, L., Hardin, R., Magliocca, J., & Smith, Z. T. (2021). The experiences of social workers in NCAA Division I athletic departments. *Journal for the Study of Sport and Athletes in Education*, *15*(3), 193-218, https://doi.org/10.1080/19357397.2021.1916307

Biddle, S., Ciaccioni, S., Thomas, G., & Vergeer, I. (2019). Physical activity and mental health in children and adolescents: An updated review of reviews and an analysis of causality. *Psychology of Sport and Exercise, 42*, 146–155. https://doi.org/10.1016/j.psychsport.2018.08.011

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research, 26*(13), 1802–1811. DOI: 10.1177/1049732316654870

Bissett, J. E., Kroshus, E., & Hebard, S. (2020). Determining the role of sport coaches in promoting athlete mental health: A narrative review and Delphi approach. *BMJ Open Sport & Exercise Medicine, 6*(1), e000676. https://doi.org/10.1136/bmjsem-2019-000676

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. https://doi-org.utk.idm.oclc.org/10.1080/2159676X.2019.1628806

Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Society for Research in Child Development, 45*(1), 1-5. www.jstor.org/stable/1127743

Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husen, & T.N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed.), Vol 3 (pp. 1643-1647). Elsevier Science.

Bulik, C. M. (2002). Anxiety, depression, and eating disorders. In C. G. Fairburn & K. D. Brownell (Eds.), *Eating disorders and obesity* (2nd. ed., pp. 193-198). The Guilford Press.

Byrne, S., & McLean, N. (2001). Eating disorders in athletes: A review of the literature. *Journal of Science and Medicine in Sport, 4*(2), 145-159. https://doi.org/10.1016/S1440-2440(01)80025-6

Carr, A. (2019). Family therapy and systemic interventions for child-focused problems: The current evidence base. *Journal of Family Therapy, 41,* 153-213. https://doi.org/10.1111/1467-6427.12226

Coakley, J. (2016). *Sports in society: Issues and controversies*. (12th Ed). McGraw Hill Education.

Cole, J. & Martin, A. J. (2018). Developing a winning sport team culture: Organizational culture in theory and practice. *Sport in Society, 21*(8), 1204–1222. https://doi.org/10.1080/17430437.2018.1442197

Cooper, J. N., Davis, T. J., & Dougherty, S. (2016). Not so black and white: A multi-divisional exploratory analysis of male student-athletes' experiences at National Collegiate Athletic Association (NCAA) institutions. *Sociology of Sport, 34*(1), 59-78. https://doi.org/10.1123/ssj.2016-0015

Cox, C. E., Ross-Stewart, L., & Foltz, B. D. (2017). Investigating the prevalence and risk factors of depression symptoms among NCAA division I collegiate athletes. *Journal of Sport Science, 5*, 14-28. http://www.davidpublisher.org/index.php/Home/Journal/detail?journalid=1&jx=JSS&cont=allissues

Cutler, B. A., & Dwyer, B. (2020). Student-athlete perceptions of stress, support, and seeking mental health services. *Journal of Issues in Intercollegiate Athletics, 13*, 206-226. http://csri-jiia.org/wp-content/uploads/2020/06/RA_2020_10.pdf

Davoren, A. K., & Hwang, S. (2014). Depression and anxiety prevalence in student-athletes. In Brown, G.T. (Ed.), *Mind, body and sport: Understanding and supporting student-athlete mental wellness* (pp. 38-39). NCAA Publications.

DeFeciani, L., Barth, D., & Starkman, H. (2015). Eating disorders and body image concerns among male athletes. *Clinical Social Work Journal, 44*(1), 114–123. https://doi.org/10.1007/s10615-015-0567-9

DeFoor, M. T., Stepleman, L. M., & Mann., P. C. (2018). Improving wellness for LGB collegiate student-athletes through sports medicine: A narrative review. *Sports Medicine-Open, 4*(48), 1-10. https://doi.org/10.1186/s40798-018-0163-y

Deloitte Access Economics. (2020). *Report: Economic costs of eating disorders.* https://www.hsph.harvard.edu/striped/report-economic-costs-of-eating-disorders/

Drew, B., & Matthews, J. (2019). The prevalence of depressive and anxiety symptoms in student-athletes and the relationship with resilience and help-seeking behavior. *Journal of Clinical Sport Psychology, 13*(3), 421-439. https://doi.org/10.1123/jcsp.2017-0043

Druckman, J., Gilli, M., Klar, S., & Robison, J. (2015). Measuring drug and alcohol use among college student-athletes. S*ocial Science Quarterly, 96*(2), 369–380. https://doi.org/10.1111/ssqu.12135

Duerden, M., & Witt, P. A. (2010). An ecological systems theory perspective on youth programming. *Journal of Park and Recreation Administration, 28*(2), 108-120 https://js.sagamorepub.com/jpra/article/view/1255

Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*(2), 350–383. https://doi.org/10.2307/2666999

Eichstadt, M., Luzier, J., Cho, D., & Weisenmuller, C. (2020). Eating disorders in male athletes. *Sports Health, 12*(4), 327–333. https://doi.org/10.1177/1941738120928991

Eriksson, M., Ghazinour, M., & Hmmaström, A. (2018). Different uses of Bronfenbrenner's ecological theory in public mental health research: What is their value for guiding public mental health policy and practice? *Social Theory & Health, 16,* 414-433. https://doi.org/10.1057/s41285-018-0065-6

Eys, M., Bruner, M. W., & Martin, L. J. (2019). The dynamic group environment in sport and exercise. *Psychology of Sport and Exercise, 42*, 40–47. https://doi.org/10.1016/j.psychsport.2018.11.001

Ford, J. (2007). Alcohol use among college students: A comparison of athletes and nonathletes. *Substance Use & Misuse, 42*(9), 1367-1377. https://doi.org/10.1080/10826080701212402

Froreich, F. V., Vartanian, L. R., Grisham, J. R., & Touyz, S. W. (2016). Dimensions of control and their relation to disordered eating behaviours and obsessive-compulsive symptoms. *Journal of Eating Disorders, 4*(14), online. https://doi.org/10.1186/s40337-016-0104-4

Gilbert, W., Cote, J., & Mallett, C. (2006). Development paths and activities of successful sport coaches. *International Journal of Sport Science and Coaching, 1*(1), 69-76. https://doi.org/10.1260/174795406776338526

Gill, E. L. (2009). The blunt truth: Marijuana use by college athletes and the role of social workers. *Journal of Social Work Practice in the Addictions, 9*(1), 140-143. https://doi.org/10.1080/15332560802540872

Greenleaf, C., Petrie, T. A., Carter, J., & Reel, J. J. (2009). Female collegiate athletes: Prevalence of eating disorders and disordered eating behaviors. *Journal of American College Health*, *57*(5), 489-496.

Gulliver, A., Griffiths, K. M., & Christensen, H. (2012). Barriers and facilitators to mental health help-seeking for young elite athletes: A qualitative study. *BMC Psychiatry, 12*(157), 1-14. https://doi.org/10.1186/1471-244X-12-157

Hague, C., McGuire, C. S., Chen, J., Bruner, M. W., Côté, J., Turnnidge, J., & Martin, L. J. (2021). Coaches' influence on team dynamics in sport: A scoping review. *Sports Coaching Review, 10*(2), 225–248. https://doi.org/10.1080/21640629.2021.1874096

Hansen, G. S., & Wernerfelt, B. (1989). Determinants of firm performance: The relative importance of economic and organizational factors. *Strategic Management Journal, 10*(5), 399–411. https://doi.org/10.1002/smj.4250100502

Harris, P. C., Hines, E. M., Kelly, D. D., Williams, D. J., & Bagley, B. (2014). Promoting the academic engagement and success of Black male student-athletes. *The High School Journal, 97*(3), 180-195. https://www.jstor.org/stable/43281213

Heller, A. (2022, February 17). Mental health: Education and support coaches. *Streamline Teams.* https://www.streamlineteams.org/post/mental-health-educate-support-coaches

Henriksen, K., Schinke, R., Moesch, K., McCann, S., Parham, W. D., Larsen, C. H., & Terry, P. (2020). Consensus statement on improving the mental health of high performance athletes. *International Journal of Sport and Exercise Psychology, 18*(5), 553–560. https://doi.org/10.1080/1612197X.2019.1570473

Holt, N. L., Tamminen, K. A., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental involvement in competitive youth settings. *Psychology of Sport, 9*(2), 663-685. https://doi.org/10.1016/j.psychsport.2007.08.001

Hong, E., Keenan, L., Putukian, M., & Scifers, J. R. (2018). Addressing mental health issues in the collegiate student-athlete. *Athletic Training & Sports Health Care*, *10*(2), 54-58. https://journals.healio.com/doi/full/10.3928/19425864-20180219-01

Hoption, C., Phelan, J., & Barling, J. (2014). *Transformational leadership in sport.* M.R. Beauchamp & M.A. Eys (Eds.). Routledge. https://doi-org.utk.idm.oclc.org/10.4324/9780203794937

Horn, T. S. (2004). Lifespan development in sport and exercise psychology: Theoretical perspectives. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 27–71). Fitness Information Technology.

Huber, Z. (2022, April 28). *Florida women's soccer coach Tony Amato fired after one season.* Gators Wire. https://gatorswire.usatoday.com/2022/04/28/florida-soccer-coach-tony-amato-fired-after-one-season/

Johnson, R. B., & Christensen, L. (2017). *Educational Research: Quantitative, Qualitative, and Mixed Approaches* (6th Edition). Sage.

Kaskan, E. R., & Ho, I. K. (2016). Microaggressions and female athletes. *Sex Roles: A Journal of Research, 74*(7-8)*,* 275-287. https://doi.org/10.1007/s11199-014-0425-1

Kavusanu, M., Boardley, I. D., Sager, S. S., & Ring, C. (2013). Bracketed morality revisited: How do athletes behave in two contexts? *Journal of Sport & Exercise Psychology, 35*, 449-463. https://doi.org/10.1123/jsep.35.5.449

Kleinert, J., Ohlert, J., Carron, B., Eys, M., Feltz, D., Harwood, C., Linz, L., Seiler, R., & Sulprizio, M. (2012). Group dynamics in sports: An overview and recommendations on diagnostic and intervention. *The Sport Psychologist, 26*(3), 412–434. https://doi.org/10.1123/tsp.26.3.412

Krebs, R. J. (2009). Bronfenbrenner's bioecological theory of human development and the process of development of sports talent. *International Journal of Sport Psychology, 40*(1), 108-135. https://psycnet.apa.org/record/2009-04771-006

Kutcher, S., Wie, Y., & Conigilo, C. (2016). Mental health literacy: Past, present, and future. *The Canadian Journal of Psychiatry, 61*(3), 154-158. https://doi.org/10.1177/0706743715616609

LaVoi, N. M. (2011). Trends in gender-related research in sport and exercise psychology. *Ibero-American Journal of Exercise and Sport Psychology, 6*(2), 269-281. https://www.riped-online.com/abstract/trends-in-genderrelated-research-in-sport-and-exercise-psychology-19142.html

LaVoi, N. M., & Dutove, J. K. (2012). Barriers and supports for female coaches: An ecological model. *Sports Coaching Review, 1*(1), 17-37. https://doi.org/10.1080/21640629.2012.695891

Lee, S. Y., Hong, J. S., & Espelage, D. L. (2010). An ecological understanding of youth suicide in South Korea. *School Psychology International, 31*(5), 531–546. https://doi.org/10.1177/0143034310382724

Lewis, F. J., Tor, S., Rappleyea, D., Didericksen, K. W., & Sira, N. (2021). Behavioral health and refugee youth in primary care: An ecological systems perspective of the complexities of care. *Children and Youth Services, 120*, 1-9. https://doi.org/10.1016/j.childyouth.2020.105599

Lindberg, S. (2021, January 25). *How does your environment affect your mental health?* VeryWell. https://www.verywellmind.com/how-your-environment-affects-your-mental-health-5093687

Martin, J. (2020). Is the profession of sport psychology an illusion? *Kinesiology Review, 9*(2), 92–103. https://doi.org/10.1123/kr.2019-0021

Martin, S. J., & Anderson, T. (2020). Help-seeking for eating pathology among collegiate athletes: Examining stigma and perfectionism as moderating and mediating mechanisms. *Journal of Clinical Sport Psychology, 14*(3), 234–250. https://doi.org/10.1123/jcsp.2018-0098

Mancine, R. P., Gufsta, D. W., Moshrefi, A., & Kennedy, S. F. (2020). Prevalence of disordered eating in athletes categorized by emphasis on leanness and activity type: A systematic review. *Journal of Eating Disorders, 8*(47), online. https://doi.org/10.1186/s40337-020-00323-2

Mayeux, W., Camel, S., & Douglas, C. (2020). Prevalence of food insecurity in collegiate athletes warrants unique solutions. *Current Developments in Nutrition, 4*(2), 239. https://doi.org/10.1093/cdn/nzaa043_090

McHenry, L., Beasley, L., Zakrajesek, R. A., & Hardin, R. (2021). Mental performance and mental health services in sport: A call for interprofessional competence and collaboration. *Journal of Interprofessional Care*, ahead of print. https://doi.org/10.1080/13561820.2021.1963218

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation* (4th ed.). Wiley Publishing Company.

Moore, G. F., Cox, R., Evans, R. E., Hallingberg, B., Hawkins, J., Littlecott, H. J., Long, S. J., & Murphy, S. (2018). School, peer and family relationships and adolescent substance use, subjective wellbeing and mental health symptoms in Wales: A cross sectional study. *Child Indicators Research, 11,* 1951-1965. https://doi.org/10.1007/s12187-017-9524-1

National Eating Disorders Association. (2022). *Eating disorders & athletes.* https://www.nationaleatingdisorders.org/eating-disorders-athletes.

NCAA Research (2019). *NCAA goals study: Understanding the student-athlete experience*. [Powerpoint slides]. https://ncaaorg.s3.amazonaws.com/research/goals/2020AWRES_GOALS2020con.pdf

National Institute of Mental Health. (2021). *Eating disorders.* https://www.nimh.nih.gov/health/topics/eating-disorders

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 533-544. https://doi.org/10.1007/s10488-013-0528-y

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry: A personal, experiential perspective. *Qualitative Social Work, 1*(3), 261-283. https://doi.org/10.1177/1473325002001003636

Pinkerton, R. S., Hinz, L. D., & Barrow, J. C. (1989). The college student-athlete: Psychological considerations and interventions. *Journal of American College Health*, *37*(5), 218-226. https://doi.org/10.1080/07448481.1989.9939063

Pluhar, E., McCracken, C., Griffith, K. L., Christino, M. A., Sugimoto, D., & Meehan, W. P. (2019). Team sport athletes may be less likely to suffer anxiety or depression than individual sport athletes. *Journal of Sports Science & Medicine, 18*(3), 490–496. https://pubmed.ncbi.nlm.nih.gov/31427871/

Poll, K. L., Holben, D. H., Valliant, M., & Joung, H. (2020). Food insecurity is associated with disordered eating behaviors in NCAA division 1 male collegiate athletes. *Journal of American College Health, 68*(2), 105-109. https://doi.org/10.1080/07448481.2018.1529035

Power, K., Kovacs, S., Butcher-Poffley, L., Wu, J., & Sarwer, D. (2020). Disordered eating and compulsive exercise in collegiate athletes: Applications for sport and research. *The Sport Journal, 24,* online. https://thesportjournal.org/article/disordered-eating-and-compulsive-exercise-in-collegiate-athletes-applications-for-sport-and-research/

Purcell, R., Gwyther, K., & Rice, S. M. (2019). Mental health in elite athletes: Increased awareness requires an early interventions framework to respond to athlete needs. *Sports Medicine-Open, 5*(46)*,* online. https://doi.org/10.1186/s40798-019-0220-1

Putukian, M. (2016). The psychological response to injury in student athletes: A narrative review with a focus on mental health. *British Journal of Sports Medicine, 50*(3), 145-148. http://dx.doi.org/10.1136/bjsports-2015-095586

Quatromoni, P. A. (2017). A tale of two runners: A case report of athletes' experiences with eating disorders in college. *Journal of the Academy of Nutrition and Dietetics, 117*(1), 21-31. https://doi.org/10.1016/j.jand.2016.09.032

Quinn, M. A., & Robinson, S. (2020). College athletes under pressure: Eating disorders among female track and field athletes. *The American Economist, 65*(2), 232-243. https://doi.org/10.1177/0569434520938709

Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise, 7*(3), 269–286. https://doi.org/10.1016/j.psychsport.2005.06.002

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Sage.

Schinke, R. J., Stambulova, N. B., Si, G., & Moore, Z. (2018). International society of sport psychology position stand: Athletes' mental health, performance, and development. *International Journal of Sport and Exercise Psychology, 16*(6), 622–639. https://doi.org/10.1080/1612197X.2017.1295557

Schwartz, J. (2020, August 5). *Texas Tech's Marlene Stollings' 'toxic' culture included confiscating player's dog.* New York Post. https://nypost.com/2020/08/05/texas-techs-marlene-stollings-toxic-culture-included-confiscating-players-dog/

Siegele, J., Hardin, R., Taylor, E. A., & Smith, A. B. (2020). "She is the best female coach": Female swimming coaches' experiences of sexism. *Journal of Intercollegiate Sport, 13*(1), 93–118. https://doi.org/10.17161/jis.v13i1.11676

Strohle, A. (2019). Sports psychiatry: Mental health and mental disorders in athletes and exercise treatment of mental disorders. *European Archives of Psychiatry and Clinical Neuroscience, 269*, 485-498. https://doi.org/10.1007/s00406-018-0891-5

Sundgot-Borgen, J., & Torstveit, M. K. (2004). Prevalence of eating disorders in elite athletes is higher than in the general population. *Clinical Journal of Sport Medicine, 14*(1), 25-32. https://journals.lww.com/cjsportsmed/Abstract/2004/01000/Prevalence_of_Eating_Disorders_in_Elite_Athletes.5.aspx

Sadberry, S., & Mobley, M. (2013). Sociocultural and mental health: Adjustment of Black student-athletes: Within group differences and institutional setting. *Journal of Clinical Sport Psychology, 7,* 1-21. https://doi.org/10.1123/jcsp.7.1.1

Turton, R., Goodwin, H., & Meyer, C. (2017). Athletic identity, compulsive exercise and eating psychopathology in long-distance runners. *Eating Behaviors: An International Journal, 26*, 129–132. https://doi.org/10.1016/j.eatbeh.2017.03.001

Ungar, M., & Theron, L. (2020). Resilience and mental health: How multisystemic processes contribute to positive outcomes. *Psychiatry, 7*(5), 441-448. https://doi.org/10.1016/S2215-0366(19)30434-1

Vargas, G., Rabinowitz, A., Meyer, J., & Arnett, P. A. (2015). Predictors and prevalence of postconcussion depression symptoms in collegiate athletes. *Journal of Athletic Training, 50*(3), 250-255. https://doi.org/10.4085/1062-6050-50.3.02

Wahto, R. S., Swift, J. K., & Whipple, J. L. (2016). The role of stigma and referral source in predicting college student-athletes' attitudes toward psychological help-seeking. *Journal of Clinical Sport Psychology, 10*, 85-98. https://doi.org/10.1123/JCSP.2015-0025

Webster, L. V., Hardy, J., & Hardy, L. (2017). Big hitters: Important factors characterizing team effectiveness in professional cricket. *Frontiers in Psychology, 8*, 1140–1140. https://doi.org/10.3389/fpsyg.2017.01140

Wolanin, A., Gross, M., & Hong, E. (2015). Depression in athletes: Prevalence and risk factors. *General Medical Conditions, 14*(1), 56-60. https://pubmed.ncbi.nlm.nih.gov/25574886/

Woodcock, C., Holland, M. J. G., Duda, J. L., & Cumming, J. (2011). Psychological qualities of elite adolescent rugby players: Parents, coaches, and sport administration staff perceptions and supporting roles. *The Sport Psychologist, 25,* 411-443. https://doi.org/10.1123/tsp.25.4.411

World Health Organization. (2018). *Mental health: Strengthening our response.* https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

Yusko, D., Buckman, J., White, H., & Pandina, R. (2008). Alcohol, tobacco, illicit drugs, and performance enhancers: A comparison of use by college student athletes and nonathletes. *Journal of American College Health, 57*(3), 281-290. https://doi.org/10.3200/JACH.57.3.281-290