HELP-SEEKING AND HELP-GIVING IN STUDENT-ATHLETES: EFFICACY AND QUALITY

by

Kimberly Sanford

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Director of Thesis: Christine Habeeb, PhD

Major Department: Kinesiology

Abstract: Mental health concerns are growing within collegiate athletics. The purpose of the current study was to evaluate (1) help-seeking and help-giving sources of athletes, (2) the quality of athlete help-giving, (3) and the ability of self-efficacy, other-efficacy, and RISE to predict help-seeking and help-giving sources and the quality of athlete help. An online survey (comprised of efficacy beliefs, help-seeking and help-seeking intentions, and an open-ended help-giving quality question) was completed by 124 Division 1 women's soccer players (M = 19.91 SD =1.36). The open-ended help-giving quality question was rated using the teen Mental Health First Aid Action Plan. Frequency counts revealed that student-athletes were most likely to seek help from mental health professionals (82.3%) and teammates (77.4%). They were also most likely to refer others to mental health professionals (88.7%) and other teammates (70.2%). Athlete's help-giving quality was moderate (M = 4.78 on a range of 0-10). Hierarchal regressions revealed self-efficacy significantly predicted help-seeking (b = .233 p < .05) and help-giving (b = .657, p < .05). Further, self-efficacy (b = .796, p < .05) and other-efficacy (b = -.106, p < .05) predicted help-giving quality. Results from this study support the need for adequate mental health resources for student-athletes and a need for increased training to better prepare athletes to feel confident to assist their peers with mental health issues.

HELP-SEEKING AND HELP-GIVING IN STUDENT-ATHLETES: EFFICACY AND QUALITY

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By Kimberly Sanford

_____
Thesis Director, Christine Habeeb, PhD

_____
Committee Member, Tom Raedeke, PhD

_____
Committee Member, Christyn Dolbier, PhD

_____
Department Chair, J.K. Yun, PhD

_____
Dean of Graduate School, Paul Gemperline, PhD

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INTRODUCTION

Sport culture perpetuates the idea of the impenetrable, strong athlete (Hughes & Coakley, 1991). Starting at the youth level and continuing all the way to professional status, athletes are applauded for pushing through physical pain and exhaustion. Still today, over 20 years later people recall Michael Jordan's famous 1997 "flu game" during Game 5 of the NBA finals, or Kerri Strug fighting through an injured ankle at the 1996 Atlanta Olympics. The "no pain, no gain" attitude is widespread in athletics for physical injuries and is the same for mental health issues as well. Accordingly, athletes have often suffered in silence during periods of mental ill-health. Only recently have pioneers such as Michael Phelps, Simone Biles, Naomi Osaka, and countless others opened up about their personal struggles with mental health (Morrison et al., 2021). These giants in sport have sparked many conversations among athletes, coaches, and sport administrators about mental ill-health and how it presents in sport. The conversation about mental health in elite athletes has trickled into collegiate athletics as well. Michigan football player, Will Heininger, Oregon State volleyball player, Lanesha Reagan, and University of Maryland's Mikayla Krinetz are some of many student-athletes that have opened up about their experiences with mental health issues such as anxiety, depression, and eating disorders (Burtka, 2019). Collegiate athletics, especially at the Division I level, are the first step towards professional athletics. Therefore, the mental health problems that exist at the elite level are often existent, and perhaps emerge, in college. Addressing issues at the collegiate level may prevent them from permeating into professional athletics.

Student-athletes are under intense stress due to athletic related time demands, balancing responsibilities, injury and overtraining risk, and problems related to athletic identity (Schinke et al., 2017). Research suggests that these stressors increase athletes' vulnerability to mental health

issues such as depression, anxiety disorders, and eating disorders (National Collegiate Athletics Association; NCAA, 2016). Studies have reported between 17-28% of athletes have experienced depression , while 31% of males and 48% of females have reported feeling excessive anxiety (NCAA Sports Science Institute, 2016; Schinke et al., 2017; Wolanin et al., 2016; Yang et al., 2007). Moreover, female student-athletes have increased rates of mental health issues compared to their male counterparts; and are more likely to have symptoms of disordered eating and depression (Bratland-Sanda & Sundgot-Borgen, 2013; Yang et al., 2007). Overall, studies suggest that student-athletes are susceptible to the development of mental health issues and are a population warranting intervention.

Addressing the mental health problem within collegiate athletics first requires the evaluation of athlete help-seeking and help-giving behaviors. Despite the prevalence of mental ill health, athletes hesitate to seek help formally (Bird et al., 2020; Gulliver et al., 2012). Formal help is defined as support provided by a mental health professional. A study by Bird et al. found that 66.3% and 82% of student-athletes would not seek help from a sports psychologist or a mental health professional if they were experiencing an emotional problem (Bird et al., 2018). This reluctance to seek help most likely stems from many barriers such as high mental health stigma, negative attitudes towards yourself or those with mental health issues, and poor mental health literacy (knowledge of mental health issues and their signs and symptoms; Gulliver et al., 2012; Hart et al., 2016; Castaldelli-Maia et al., 2019; Cutler, 2020). Similar to other populations, athletes prefer *informal* mental health help. This coping strategy refers to support offered by non-professional sources such as friends and family. Within the sport context, athlete- to-athlete help has become the most prevalent type of help-seeking and help-giving behavior as teammates are most likely to seek help from each other during episodes of distress (Bird et al., 2018; Cutler,

2020). Hagiwara et al. (2017) found that received and provided teammate social support had a significant, negative relationship with depressive and sports helplessness scores (*r =-.38).* Teammate-to-teammate support is a popular and effective type of help-seeking; however, few studies have evaluated the quality of help teammates provide each other and constructs that may influence this type of help, such as efficacy.

Social Cognitive Theory (SCT) has proposed self-efficacy as a construct underlying behavior in a variety of contexts (Bandura, 1998). Previous studies have offered efficacy as a variable influencing the probability of seeking help and have shown its relationship with help-seeking (Bird et al., 2020; Mason et al., 2015). Research has also proposed self-efficacy as a mechanism influencing help-giving (Bird et al., 2018; Cutler, 2020; Rossetto et al., 2018). In addition to self-efficacy, Lent and Lopez (2002) proposed that two relational efficacies (other-efficacy and relation-inferred self-efficacy; RISE) also act within SCT. Other-efficacy concerns an individual's confidence in the other's ability to perform a task and RISE relates to an individual's perception of another's confidence in them (Lent & Lopez, 2002). In the athletic context, there is evidence of tripartite efficacy's effects on performance and relationship quality (Jackson et al., 2009). Given the established relationship between self-efficacy, help-seeking, and help-giving, and the relationship between self-efficacy and the relational efficacies, it is possible that other-efficacy and RISE also influence help-seeking and help-giving behaviors in athletes. Furthermore, research has not discerned the quality of teammate-to-teammate help or the potential role of efficacy in help-giving quality. Overall, the findings of the current investigation can serve to pinpoint potential target audiences of mental health interventions, especially teammates, and the specific constructs targeted by the curriculum of these future programs. Therefore, the purpose of this study is to (1) to identify sources of student-athlete help-seeking

and help-giving, (2) evaluate help-giving quality of student-athletes (3) and to determine whether the efficacy variables predicted help-seeking, help-giving, and help-giving quality.

LITERATURE REVIEW

The aim of this study is to improve student-athlete mental health. Specifically, in this study we evaluate the individuals who athletes seek help from and refer others to during mental health issues, the quality of mental health help student-athletes provide one another, and the relationships self-efficacy, other efficacy, and RISE have with help-seeking and help-giving. This chapter will present findings of previous literature concerning models of help-seeking and help-giving and how efficacy may influence these processes and the quality of athlete help. Overall, this chapter will offer efficacy, within Social Cognitive Theory, as a mechanism to explain trends in student-athlete mental health help-seeking and help-giving.

Help-Seeking and Help-Giving

Help-seeking and help-giving are two interrelated but distinct processes in acquiring mental health help. Help-seeking is defined as searching or requesting help, informally or formally, during a mental health issue (Hedge et al., 2017). Help-seeking sources would be individuals who are sought out to provide help. For example, a student-athlete may seek help from a mental health professional if they are struggling with a mental health concern. This mental health professional would be the help-seeking source. Help-giving is providing support or resources to others during a mental health issue (Rossetto et al., 2018). This study defines help-giving as referral sources during periods of mental ill health. The individuals who athletes refer another to are help-giving sources. For example, if an athlete goes to a teammate for mental health help and is referred to an athletic trainer, the athletic trainer is the help-giving source.

Across various environments, informal help-seeking, seeking help from non-professional sources (e.g., friends and family) is preferred compared to formal (Grinstein-Weiss et al., 2005; Woodward et al., 2010; Hedge et al., 2017). Adolescents report increased informal help-seeking

intentions during dating violence situations and periods of distress (Grinstein-Weiss et al., 2005; Hedge et al., 2017). The same trend was observed in a study of adults experiencing stressful personal problems (Woodward et al., 2010). Informal help-givers such as friends and family are more likely to be sources of mental health help-seeking due to their proximity to the recipient. Individuals favor informal help-seeking because they feel their experiences are shared and can be easily understood by their peers. Adolescents report going to their friends for help over adults or mental health professionals because they feel older populations perceive their problems as unimportant; as a result, peer support provides a space where problems are better received and understood (Rickwood & Braithwaite, 1994).

Within the athletic context, teammates have emerged as primary targets of help during periods of mental ill-health (Cutler, 2020). Athletes share similar stressors and experiences with their teammates. This fosters a sense of relatedness increasing their confidence in problems being understood and validated by peers compared to a mental health professional (Rickwood & Braithwaite 1994). Teammates have very similar experiences and are perhaps the most proximal source of help-seeking or help-giving. In contrast, stakeholders such as coaches, athletic trainers, administrators, and mental health professionals are slightly removed from the student-athlete experience. As a result, student-athletes are less likely to seek help from these individuals compared to their teammates. Bird et al (2018) found that student-athletes are 1.5 times more likely to seek help from a teammate compared to a coach. Student-athletes reported that only 18.8% would seek help from a mental health professional, and 16.8% would seek help from an athletic trainer (Bird et al., 2018). In comparison, over half the sample indicated their likelihood of seeking help from a teammate. Teammates often communicate about problems outside of mental ill-health, yet we know little about what makes teammates primary help sources.

Social Cognitive Theory

This study relies on Social Cognitive Theory (Bandura 1986; 1997) to understand factors related to help-seeking and help-giving. Social Cognitive Theory (Bandura 1986; 1997) has been used to predict health promotion and disease prevention behaviors (Bandura, 1998). In this theory, Bandura proposes there is an interaction among behavioral, environmental, and social cognitive factors (Hausenblas & Rhodes, 2016). Behavioral factors include type of behavior, frequency, duration, and context. Environmental factors include the physical and social environment of an individual. Social cognitive factors include self-efficacy, outcome expectations, and self-regulation. Social Cognitive Theory relies on the reciprocal relationship between these three factors. For example, this study proposes that a student-athlete's self-efficacy in finding or providing mental health help may be directly influenced by beliefs of their teammates and coaches (social environment). These environmental factors can also influence a student-athlete's decision to seek help (behavior). The interaction between the constructs proposed by SCT may explain athlete help-seeking and help-giving, especially when focused on self-efficacy.

Self-Efficacy Sources and Outcomes

Self-efficacy is the most central variable to Social Cognitive Theory; it is an individual's perception of their ability to perform a certain task (Bandura, 1977). An individual's self-efficacy can relate to their behavior by influencing their effort, stress, and perseverance in the face of obstacles (O'Leary, 1985; Bandura, 1998). Self-efficacy is informed by four main sources: mastery experiences, vicarious experiences, verbal persuasion, and physiological states. The strongest of these sources, mastery experiences, is an individual's past performances completing a certain task. Previous successes will bolster self-efficacy, whereas failures will

undermine it. Vicarious experience relates to an individual observing a desired behavior. These models provide a basis for which an individual can judge their own behavior and learn strategies for task completion and environment management. The next source, verbal persuasion, involves verbally communicating to an individual that they have what it takes to be successful. The final source of self-efficacy is an individual's physiological states. An individual's interpretation of physiological changes such as increased heartrate affects their self-efficacy to a greater degree than the physiologic changes independently (Bandura, 1998; Hausenblas & Rhodes 2016). Fulfilling the sources of efficacy increases self-efficacy which, in turn, influences aspects of behavior such as effort and perseverance. Relating to mental health, satisfying efficacy sources, especially mastery experience, increases the likelihood for positive help-seeking and help-giving outcomes.

Self-efficacy predicts behavior through its influence on outcome expectations, sociocultural factors, and self-regulative behaviors (Hausenblas & Rhodes, 2016). Outcome expectations refer to an individual's judgements about a behavior's consequences (O'Leary, 1985). Outcome expectations can be physical, social, or self-evaluative. Physical outcome expectations relate to the body. Social outcome expectations refer to an individual's appraisal of how referent others will react. Finally, self-evaluative outcome expectations concern an individual's appraisal of their own accomplishments, (e.g., I will be happy when I accomplish my goals; Hausenblas & Rhodes, 2016). Self-efficacy also influences behavior via its direct relationship with sociocultural factors. These factors represent barriers and facilitators to the desired behavior. For an individual to achieve their desired behavior their self-efficacy must be great enough to overcome potential barriers (Hausenblas & Rhodes, 2016). The final factor of Social Cognitive Theory influencing behavior is self-regulative behaviors, such as goal setting

and self-monitoring (Bandura, 1991). Self-regulation refers to an individual's adopted standards that act as a guide and evaluative tool for behavior (Bandura, 1991). Self-regulative behaviors are influenced by self-efficacy and sociocultural factors. In general, SCT proposes self-efficacy's role in informing outcome expectations, sociocultural factors, and self-regulative behaviors to effect behaviors.

Self-efficacy has cemented itself as a central component in Social Cognitive Theory and a construct affecting health behaviors in various contexts such as eating disorders and sports performance. A study of 219 adults found that those who had low eating self-efficacy, the ability to regulate eating behaviors while experiencing negative emotions, were more likely to be preoccupied with weight, have bulimic thoughts, and engage in bulimic behaviors (Berman, 2006). A similar study evaluating the relationship between self-efficacy and loss of control eating in adolescent girls found that greater eating self-efficacy was associated with fewer loss of control eating episodes (Glasofer et al., 2013). In addition to its ability to predict health behaviors, self-efficacy has also been used in an athletic context to predict performance. A meta-analysis evaluating the role of self-efficacy on sports performance found the average correlation between self-efficacy and performance was .35 (Moritz et al., 2000). A study evaluating within- (compared to the individual) and between- (compared to a group) person squat performance found that self-efficacy was significantly, positively related to within- and between person performance (Gilson et al., 2012). Another study also supported the relationship of coping self-efficacy and athletic performance in team and individual sport athletes (Nicholls et al., 2010). Coping self-efficacy refers to an individual's ability to utilize strategies to overcome potential barriers of a desired behavior. Results revealed that coping self-efficacy was positively related to athletic performance (Nicholls et al., 2010). The findings of these studies show the

generalizability of self-efficacy as it relates to a variety of behaviors including eating disorders and athletic performance. Given the crucial role of self-efficacy as defined by Social Cognitive Theory and its application to behavior in a variety of contexts, theoretically self-efficacy may be an important variable in athlete help-seeking and help-giving.

Self-Efficacy, Help-seeking, and Help-giving

Past positive experiences of giving or receiving help from a teammate strengthens an individual's belief in their ability to give and receive help which, according to SCT, will increase the likelihood of the behavior in the future. However, not having experiences or having negative experiences with help-seeking or help-giving will diminish an athlete's self-efficacy and reduce the likelihood of the behavior in the future. Increased mastery experiences in seeking informal help increases self-efficacy and the likelihood of engaging in that behavior in the future. Similarly, not knowing what to do or say when a peer is dealing with mental health issues is often cited as a reason for not providing help and is reflected in low self-efficacy beliefs (Morgan & Rossetto, 2020)

Mental health literacy, knowledge of signs and symptoms, definitions, and prevalence of mental illnesses, also influence self-efficacy. An individual with increased mental health literacy will be aware of mental health resources available which they can use to refer others to help or seek help for themselves. Most often mental health literacy is increased by interventions that reinforce an individual's mastery and vicarious experiences. These interventions involve workshops with lectures, simulations, or opportunities to practice strategies for dealing with mental ill-health. These exercises work to increase mastery experiences of participants thereby increasing self-efficacy. A study of Australian adolescents found, post-intervention, correct recognition of a potential mental health issue was associated with increased help-seeking

intentions and increased confidence (Mason et al., 2015). The teen Mental Health First Aid (tMHFA) intervention introduced participants to an action plan to assist peers with mental health issues. Following tMHFA, adolescents reported an increase in self-efficacy, ability to recognize symptoms of mental health issues, and help-seeking and help-giving intentions (Hart et al., 2016; Hart et al., 2018). Mental health interventions increase mental health literacy and provide activities aimed to increase mastery experiences, thereby increasing overall self-efficacy in help-giving situations (Hart et al., 2016; Hart et al., 2018).

Interventions have also been used in the student-athlete populations to bolster self-efficacy by fulfilling mastery and vicarious experience sources. A study of 33 Division I student athletes, employed an instructor led, group intervention focused on increasing mental health literacy and empathy, and reducing stigma (Chow et al., 2020). A combination of group discussions, activities, reflections, videos, and modeling were used within the intervention. Results showed that following the intervention, mental health literacy, attitudes, and intentions towards seeking help increased from baseline to post-intervention and remained elevated 1-month post-intervention (Chow et al., 2020). Additionally, participants were shown a video depicting another student-athlete's experience seeking mental health help. This allowed student-athletes to evaluate the experiences of a similar other which acts on the vicarious experience source of self-efficacy, improving their perceptions of their ability to seek mental health help. Increased mental health literacy of an individual can also increase self-efficacy and increase their likelihood of providing help. Overall, self-efficacy influences an individual's decision to seek or provide mental health help and is most effected by mastery experiences.

Relational Efficacy Beliefs

While the role of self-efficacy on help-seeking has been documented, research has yet to formally consider the potential roles of other efficacy and RISE on help-seeking and help-giving. Self-efficacy is related to perceptions and attitudes of proximal stakeholders (Saville et al., 2014; Lent & Lopez, 2002). For example, an athlete may judge their previous performances based on the performance or feedback of referent others (Saville et al., 2014; Lent & Lopez 2002). Previous research asserts that relational efficacies influence self-efficacy but also have independent effects on behaviors (Lent & Lopez, 2002; Jackson et al., 2008; Jackson et al., 2009; Saville et al., 2014). The following sections outline the previous research on other-efficacy and RISE.

Other-Efficacy

Other-efficacy is how an individual perceives another's ability to complete a task (Lent & Lopez, 2002). According to studies by Jackson et al. (2008; 2009), perceptions of other-efficacy are informed by perceptions of the other and perceptions of how individuals will perform together. Consequences of other-efficacy include self-efficacy, motivation, performance, and relationship quality (Jackson et al., 2008). Often studied in relation to athletic performance, other-efficacy can be applied to mental health help-seeking and help-giving. Specifically, other-efficacy could be informed by an individual's perceptions of the other's help-giving abilities and the ability of both individuals to function together to seek a solution to mental ill-health. These perceptions are related to partner selection, motivation, effort, and help-giving or help-seeking outcomes.

An individual's efficacy in another is influenced by past accomplishments (Lent & Lopez, 2022; Jackson et al., 2008). In a help-seeking context, previous experience seeking help from an individual may influence other-efficacy. Teammate-to-teammate help has emerged as

the most prominent mental health help-seeking behavior, suggesting student-athletes perceive their teammates as more capable of providing help during episodes of poor mental health than other sources (Bird et al., 2018; Cutler, 2020). One study found that 81.9% of athletes reported being likely to seek help from a teammate compared to 59% of athletes reporting their likelihood of seeking help from a mental health professional (Habeeb et al., 2022). The preference for teammate-to-teammate help-seeking, may be reflective of previous positive instances of help, similar to how mastery experiences inform self-efficacy. Likewise, the decision to provide help to an individual is also influenced by outcomes of previous instances of help (Lent & Lopez, 2002; Jackson et al., 2008; Jackson et al., 2009). The more confident an athlete is in their teammates' abilities to help the more likely they are to seek help from that individual. Outcomes of recipients' previous help-seeking ventures, such as their adherence to therapy, relates to the helper's evaluation of the recipient's ability to receive care (Rossetto et al., 2018).

Perceptions of the other from third party individuals serve as sources of other-efficacy (Jackson et al., 2008). A study of dyads found that athletes reported feeling increased efficacy in their partner in response to positive evaluations by others (Jackson et al., 2008). In team sports, these perceptions are informed by an individuals' role within the team. Roles are the various responsibilities assumed by team members that promote efficient functioning; they can range from task specific to social responsibilities (Stewart et al., 2005 & Burke et al. 2019). Matthieu et al. (2014) proposed the role of the "team builder," which is someone that supports teammates decisions, calms teammates down when stressed, and motivates them when they are struggling. While these roles are often examined during performance, they can be applied to the mental health help-seeking context as well. Teammates that adopt a team builder-type role may be targets of help-seeking behaviors as they are familiar with adopting caretaker roles that would be

ideal for someone struggling with a mental health concern. Athletes may report higher other-efficacy beliefs for these individuals because of their role within the team and previous experiences with similar issues.

Past experiences and evaluations by third-party individual's fuel other-efficacy beliefs which in turn effect partner selection (Jackson et al., 2008; Jackson et al., 2009). Individuals decide with whom to engage in certain activities based on their perception of the other's ability to perform (Lent & Lopez, 2002). An individual is more likely to seek out a capable partner than someone who is incapable (Lent & Lopez, 2002). In help-giving situations, helpers with greater other-efficacy beliefs towards the recipient to receive help will expend more effort in finding resources and offering support to that individual (Lent & Lopez, 2002; Rossetto et al., 2018). When the helper is more confident in the recipient to receive care and continually seek treatment, they are more likely to offer aid. By showing a genuine care and willingness for help, the recipient shows the helper their willingness to receive care which increases the helper's likelihood of providing help (Rossetto et al., 2018). In help-seeking, an athlete who is confident in an individual's ability to help them will perceive greater benefits to being helped, increasing their help-seeking intentions (Bird et al., 2020).

Other-efficacy beliefs also inform effort and self-efficacy; these factors relate to outcomes of behavior. (Jackson et al., 2008; Jackson et al., 2009; Lent & Lopez., 2002). Lent & Lopez (2002) introduce self-fulfilling processes in which an individual's appraisal of the other is communicated through efficacy enhancing or diminishing processes that influence behaviors and consequences. An athlete who is confident in the ability of a teammate to help will expend more effort and is more likely to seek help than someone who is not confident in the help-giving ability of another (Lent & Lopez, 2002). Student-athletes who reported being confident in their

mental health professional's ability to help them and provide strategies on managing stress reported higher perceived benefits of seeking help (Bird et al., 2018). Those who were skeptical about the professional's ability reported higher perceived barriers and were less likely to seek help or report positive help-seeking experiences (Bird et al., 2018). These self-fulfilling processes also influence changes in self-efficacy. Often those who perceive their partner to be highly efficacious report an increase in their self-efficacy (Jackson et al., 2008). Student-athletes seeking help from mental health professionals they perceived as highly efficacious reported increased confidence in their ability to cope with mental health issues (Bird et al., 2018). Overall, other-efficacy is associated with behavioral outcomes via partner selection, effort, and self-efficacy.

Relation Inferred Self-Efficacy (RISE)

Rarely are an individual's perceptions of themselves purely derived from their own thoughts, RISE offers a mechanism that explains how efficacy is related to the perception of others which relates to relationships and behaviors within these relationships, such as help-seeking and help-giving. RISE refers to an individual's perception of another's confidence in them (Lent & Lopez, 2002). RISE, person A's perception of person B's evaluation of their ability, has a strong relationship with self-efficacy (Lent & Lopez, 2002). In help-seeking and novel situations, RISE beliefs of the helper increase self-efficacy in the recipient (Lent & Lopez, 2002; Saville et al., 2014). Outside of self-efficacy, RISE has also been shown to influence relationship continuation and termination which is associated with help-giving outcomes (Jackson et al., 2008).

RISE is a crucial factor in coping with life stressors because of its relationship with self-efficacy (Lent & Lopez, 2002). Lent and Lopez (2002) proposed that RISE can act as a source of

self-efficacy beliefs in help-seeking situations. An individual who seeks help for mental health issues recognizes that they do not have the ability to help themselves which may be reflected in a lack of self-efficacy. When these individuals seek help, RISE beliefs of their support systems boost self-efficacy (Lent & Lopez, 2002). For social support to have self-efficacy bolstering effects the recipient must interpret efforts of support as genuine (Lent & Lopez, 2002). The NCAA has pushed initiatives to increase the help-seeking behaviors of athletes in distress such as the "Support Student-Athlete Mental Wellness" online module. The purpose of this program is for coaches to learn to provide support that bolsters student-athletes belief in their ability to cope with their stressors by ushering them towards appropriate resources (Kroshus et al., 2019). The coach imparts their belief in the athlete's ability to cope with their mental health concern to bolster a student-athlete's self-efficacy. RISE also informs self-efficacy in cases where mastery experiences are not available (Saville et al., 2014). Here, an individual relies on the evaluation of others due to their lack of experiences. In a help-seeking situation, an athlete who has little experience seeking help may rely on the support and perception of themselves from the other as their source of efficacy (Jackson et al., 2008; Lent and Lopez, 2002; Saville et al., 2014). Overall, RISE can act as a source of self-efficacy in coping situations and when an individual has little experience in the desired behavior.

Similar to self-and other-efficacy, previous experiences are related to RISE levels in both help-seeking and help-giving situations. Athlete-athlete and athlete-coach dyads reported greater RISE beliefs following positive past experiences; (Jackson et al., 2008; Jackson et al., 2009). Additionally, greater experience has been shown to be associated with increased RISE beliefs (Jackson et al., 2008). Within athletics, teammates share many of the same experiences and spend a lot of time together. As a result, they have plenty of opportunities to seek and provide

help in a variety of situations. Previous positive experiences of help-giving may strengthen an athlete's belief in their teammate to provide adequate mental health help, especially if the athlete has more experience seeking help from that teammate. In general, previous experiences serve as important sources of RISE.

Consequences of RISE include relationship persistence, and relationship termination. Studies of coach-athlete and athlete-athlete dyads have shown that increased RISE beliefs were associated with increased likelihood of continuing their respective partnerships (Jackson et al., 2008, Jackson et al., 2009). In a help-seeking situation those who believe that their partners are confident in their ability to seek help are more likely to seek help and continue the help-seeking relationship. Similarly, increased RISE beliefs may be marked by increased persistence by the helper in help-giving efforts (Rossetto et al., 2018). A 2012 study evaluating efficacy beliefs between clients and therapists, showed that RISE beliefs of both the client and therapist were significantly associated with relationship quality and indirectly associated with engagement (Jackson et al., 2012). RISE levels are also related to relationship satisfaction (Jackson et al., 2008). In contrast, low RISE beliefs are associated with relationship termination and dissatisfaction (Jackson et al., 2008). Therefore, decreased RISE beliefs would be associated with decreased help-seeking and help-giving intentions. Overall, sources of RISE are self-efficacy beliefs, and evaluations of previous experiences. These antecedents effect relationship quality, relationship termination, and relationship continuation which influence help-giving and help-seeking outcomes.

Summary of Efficacy Beliefs

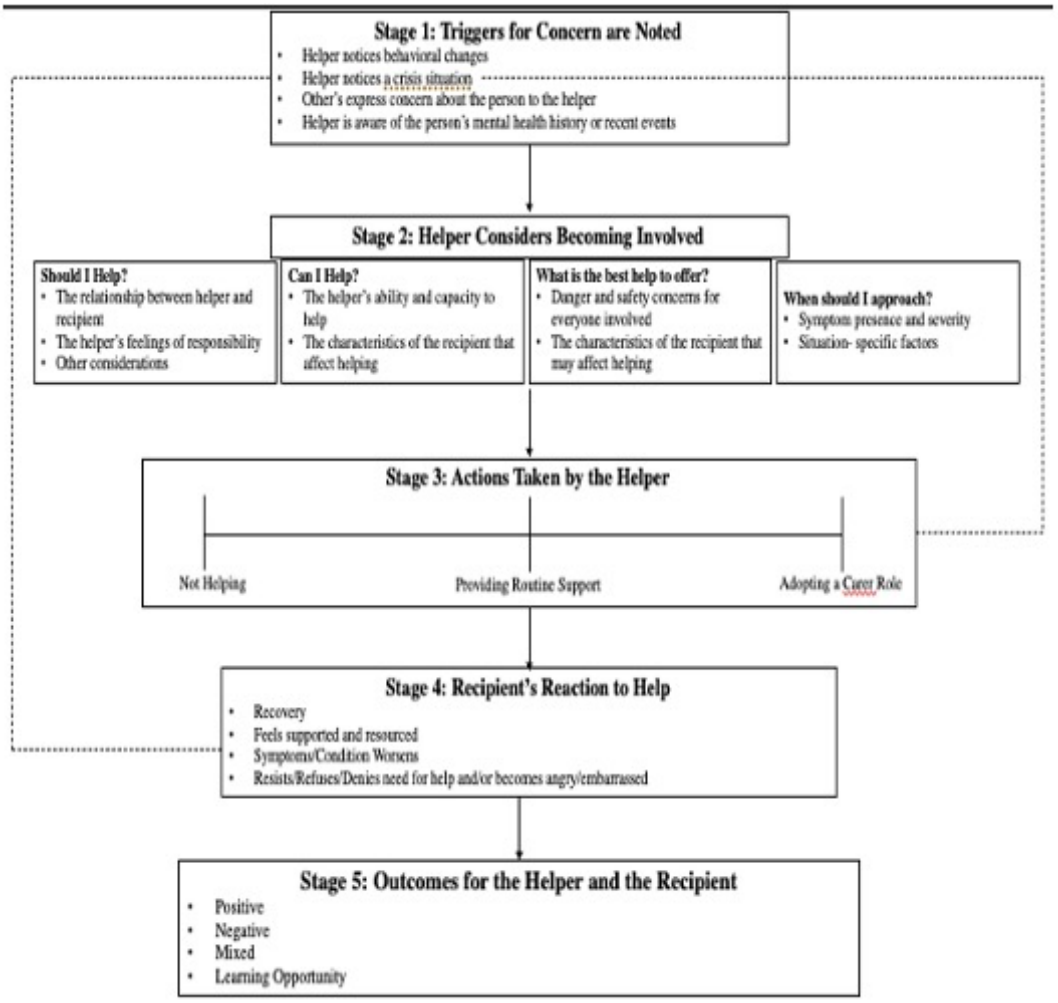
Overall, research suggests a relationship between self-efficacy, other-efficacy, and RISE, especially in performance settings. In these environments, efficacy variables are informed by

past performances and are related to behavioral outcomes. Theory suggests similar relationships should be present in helping situations, but there lacks empirical evidence to support these theoretical assertions. The following sections describe a help-giving model that outlines how to examine these efficacy beliefs in athlete-to-athlete helping for mental health concerns.

Help-Giving Model

A model presented by Rossetto et al. (2018) offers explanation of the factors underlying help-giving behaviors. To create the model, adults who had received Mental Health First Aid training completed interviews recalling their mental health help-giving experiences before and after the training. Interview transcripts were coded into different themes which informed different stages of the model. As depicted in Figure 1, there are five main stages of help-giving: the helper noticing cause for concern (Stage 1), the helper considering becoming involved (Stage 2), actions taken by the helper (Stage 3), the recipient's reaction to help (Stage 4), and outcomes for the helper and recipient (Stage 5). Within this model there is evidence of SCT constructs acting to influence help-giving behavioral outcomes such as help-giving quality. With athlete-to-athlete help-giving as the primary form of support during mental health issues, understanding the mechanisms that influence an individual’s decision to give help and the quality of help provided may offer explanation for athlete’s underutilization of mental health resources.

Figure 1: Rossetto et al.'s (2018) Help-Giving Model



Although it is not explicitly mentioned by the authors, in each of its five stages the help-giving model offers the interaction of each of the variables within the SCT: Specifically, efficacy variables are associated with the second stage of the model when the helper considers becoming involved. Stage one is characterized by the helper noticing behavioral changes or crises situations. In this stage, the helper would be aware of recent events that may represent cause for concern or the recipient's previous experience with mental health issues. The helper may also become aware the recipient is in need after being approached by others, or the recipient

approaching them to discuss their distress (Rossetto et al., 2018). This stage can also be related to actions performed by the helper in time-sensitive, crisis situations.

Stage two is where the helper considers becoming involved based on four questions: "should I help", "can I help", "what is the best help to offer", and "when should I approach". During the "should I help" phase, the helper has three main considerations: their relationship with the recipient, their feelings of responsibility, and other considerations. RISE beliefs influence this phase. Often, the helper considers closeness of their relationship when considering providing help (Morgan & Rossetto, 2021). Often the strength of the relationship predicts whether help is given and the quality of help. Informal help-givers are well placed to offer support due to their closeness to the individual. Not having a close relationship with the recipient is a predictor for declining to give mental health help (Morgan & Rossetto, 2021). The help-giving process can be uncomfortable due to potentially sensitive information. Helpers reported not offering aid to those of which they were not close, citing beliefs that they may not be the participants' preferred sources of help-giving (Rossetto et al., 2018). Relationship satisfaction can be a by-product of the magnitude of a relationship and is directly related to RISE beliefs (Jackson et al., 2008). Additionally, the helper considers their feelings of responsibility to the recipient during this phase. Feelings of obligation are related to the relationship between the helper and the recipient and symptom severity. Responsibility can stem from formal or informal relationship dynamics between the helper and recipient. In Rossetto et al.'s study (2018), participants reported helping due to existing roles where they already cared for the recipient such as being a teacher or obstetrician to the recipient. In the athletic context, these more formal relationships could be between athletes and coaches, athletic trainers, or administrators. An athlete turning to a stakeholder during a crisis may communicate to the helper feelings of

confidence in their ability to help (RISE beliefs), in turn, this strengthens efficacy beliefs of the helper making them more likely to become involved (Jackson et al., 2008; Jackson et al., 2014)

During the second phase of this stage, "can I help," the helper considers their capability to provide help, and other characteristics of the helper that might influence their help-giving. Mental health literacy, time, emotional resources, and self-efficacy influence the ability to provide mental health first aid (Rossetto et al., 2018). Feelings of capability (self-efficacy) are highest when individuals believe that they can make a difference in the recipient's situation. This ability to provide help most often stemmed from having the education and skill set required to provide mental health first aid. Additionally, people are more likely to provide help if they believe their schedules allow them adequate time or if they believe the situation can be resolved quickly (Rossetto et al., 2018). Emotional resources and self-efficacy also influence decisions to help. When individuals perceive a lack of emotional resources or support they are less confident in their abilities to provide help resulting in declining help-giving (Rossetto et al., 2018).

Personality characteristics, cultural values, and past experiences of the helper are also considered by this model as factors influencing helping. Being empathetic and outgoing were cited as facilitators to help-seeking; whereas introversion and shyness posed barriers to providing help. SCT proposes the interaction of the environment on social cognitive factors and behaviors. An individual's environment can include social contexts that may influence behaviors and social cognitive theories. The help-giving model proposes that social values, such as culture, can sway decisions to give help (Rossetto et al., 2018, Woodward et al., 2010). Within athletics, stigma is cited as a major barrier to help-giving (Gulliver et al., 2012; Moreland et al., 2018). Previous research has shown that increased levels of stigma are associated with reduced help-giving intentions and quality. The last consideration in this phase of help-giving is the helper's past

experiences such as their experiences with their own mental health issues. This phase connects to the mastery experience source of self-efficacy; previous positive experiences with help-seeking or help-giving increase the likelihood of providing help (Rossetto et al., 2018).

The next phase, "What is the best help to offer," involves the helper considering safety concerns for themselves and the recipient and characteristics of the recipient that might influence help-giving. Here, the helper considers any dangers to themselves or the recipient if they intervene. Past studies have shown that those who are deemed dangerous, or individuals thought to be experiencing psychosis are less likely to be given help (Morgan & Rossetto, 2021). Safety considerations also involve considering what dangers the recipient may pose to themselves if the helper does not intervene. Willingness of the recipient to receive help emerged as an influential predictor of help-giving. Individuals were more likely to provide help when the recipient was motivated to change their situation (Rossetto et al., 2018). Athletes have reported that motivation influences their confidence in another's ability (Jackson et al., 2008). In a help-giving situation, motivation to cope with crisis situations is interpreted as a belief in the recipient's ability to cope, other-efficacy. Conversely, those who do not appear to be motivated, recipients that have refused help in the past, or those disinclined to receiving help pose barriers to help-giving (Jackson et al., 2008; Morgan & Rossetto, 2021).

In the final consideration of this stage, "When should I approach," the helper considers symptom severity of the recipient, and physical proximity, and availability. Helpers were more likely to provide assistance when they were aware that the recipient was experiencing symptoms of mental ill-health. On the contrary, when recipient symptoms were deemed to be of low severity individuals were less likely to provide immediate help. This may be reflective of increased other-efficacy beliefs. Helpers are more likely to become involved when they believe

the recipient has the ability to be helped so, if the helper appraises the recipient's coping ability to be too high they may decline to provide help. In this situation, the helper may believe the individual can help themselves, especially when symptom severity is low. Often helpers report "keeping an eye" on the situation, should it worsen (Rossetto et al., 2018). Helpers separated by physical distance or availability are less likely to assist recipients (Morgan & Rossetto, 2021; Rossetto et al., 2018). Additionally, individuals reported providing indirect help in situations where they were not in the best position to help. In these cases helpers reached out to better positioned stakeholders in the recipient's life for support (Rossetto et al., 2018).

Rossetto et al. (2018) was the first to introduce a continuum of mental health help-giving options, which is directly related to the second stage of the model and the efficacies. This spectrum encompasses the various ways of providing support including: not helping, monitoring situation for changes, indirect help, providing routine support, actively engaging with the recipient, intense engagement with the recipient, and adopting a carer role. Actions chosen during this stage are informed by stage two, which theoretically may be reflective of help-giving quality which will be discussed in the subsequent section.

Overall, this model was created to provide a specific, in-depth examination of the factors and considerations relevant to providing or declining to provide help-during mental health issues (Rossetto et al., 2018). SCT works within this model to influence the decision to provide help and help-giving outcomes. This study proposes that the efficacy variables have an influence on the helper's consideration to become involved; according to the model, these considerations effect actions taken by the helper which is indicative of help-giving quality. The following chapter serves to evaluate the specific ways in which efficacy may relate to help-giving quality.

Help-Giving Quality

Ideally in times of mental ill-health, student-athletes would refer others to mental health professionals, or staff members that can direct an at-risk athlete to professional help. While studies investigating the quality of athlete help are limited, it is known that athletes underutilize mental health resources (Gulliver et al., 2012). This may be reflective of the quality of student-athlete help-giving. Interventions in adolescents have demonstrated that the tMHFA has been associated with increased willingness to send peers to an adult with the capability of helping them, such as a teacher or parent (Hart et al., 2018). This increase in help-giving quality is related to the performance of each step in the mental health first aid action plan. These steps are reflective of the help-giving model and levels of efficacy.

The efficacy variables influence the help-giving model. These considerations directly affect help-giving outcomes. Self-efficacy, other-efficacy and RISE are directly related to motivation to performance a task (Jackson et al., 2008 & 2009). As efficacy levels increase so do motivation levels to complete the desired behavior. Efficacy variables have also been shown to be related to increased effort and persistence levels especially in the face of obstacles (Bandura, 1998). As an individual's self-efficacy increases they are more likely to appraise obstacles as challenges and persevere (Hausenblas & Rhodes, 2016). Motivation and perceptions of effort in others have also been shown to increase other-efficacy and RISE beliefs (Jackson et al., 2008 & Jackson et al., 2009). Those with higher levels of motivation and those who perceive increased motivation in others may show increased effort in help-giving situations (Rossetto et al., 2018). Also, increased self-efficacy, other-efficacy, and RISE may result in better help-giving quality

Every help-giving situation is specific, making it difficult to classify which actions on the help-giving continuum are appropriate. Some mental health issues may require reference to a

mental health professional while some simply require a conversation between peers. The teen Mental Health First Aid action plan (tMHFA) provides a basic strategy for how to provide high quality to peers experiencing distress and mental health concerns (Hart et al., 2016; Hart et al., 2018; Mason et al., 2015). There are five steps to this strategy: "look for warning signs", "ask how they are," "listen up," "help them connect to an adult," and "your friendship is important issues (Hart et al., 2016; Hart et al., 2018; Mason et al., 2015)." Adherence to these steps has been used to evaluate mental health help-giving in adolescents, a population with low mental health literacy and stigmatizing attitudes (Hart et al., 2016).

The tMHFA is part of an intervention created specifically for adolescents to increase mental health literacy, decrease stigmatizing attitudes and increase help-giving intentions. Interventions utilizing the tMHFA rubric to grade mental health help-giving have been successful in the adolescent population. Similar to adolescents, athletes underutilize formal mental health resources, and report stigma and low mental health literacy as major barriers to receiving mental health help. (Castaldelli-Maia et al., 2019). Given this, the athletic population follows similar trends to adolescents concerning mental health literacy and stigmatizing attitudes. Therefore, student-athletes may also benefit from this help-giving quality assessment.

The steps of the tMHFA parallel Rossetto et al.'s (2018) help-giving model. The first step, "look for warning signs" reflects the first stage of the help-giving model. The "ask how they are" and "listen up" steps reflect the second stage of the help-giving model where the helper considers becoming involved. The third step, "help them connect to an adult," reflects the type of help offered. This would be related to a teammate referring another to a coach, athletic trainer, mental health professional, or anyone that has the ability to direct the athlete to professional help. The fourth step of the action plan also reflects the help-giving spectrum. This step involves the

helper providing care and support to the recipient outside of referring them to a mental health professional. This step also reflects the last stage of the help-giving model. During this stage, the helper also follows-up with the recipient and considers outcomes to help-giving. Given the relationship between the tMHFA and the help-giving model, it is possible that levels of efficacy may also influence quality of help as outlined in tMHFA rubric evaluations.

Summary of Literature Review, Study Purposes, and Hypotheses

SCT presents self-efficacy as a major determinant of behaviors and has been supported by previous research in help-seeking contexts. Lent and Lopez (2002) asserted that self-efficacy is a product of an individual's and societal appraisal of ability. To address the influence of social evaluation they introduced the relational efficacies: other-efficacy and RISE. Research supports the relationship between self-efficacy, other-efficacy, and RISE on behavior. Additionally, there is evidence of SCT constructs and efficacies working within a recently proposed help-giving model. However, previous literature has yet to assess the role of efficacies in help-seeking and help-giving behavior and their relationship with help-giving quality. Therefore, the purpose of this study is (1) to identify sources of student-athlete help-seeking and help-giving, (2) evaluate help-giving quality of student-athletes (3) and to determine whether the efficacy variables predicted help-seeking, help-giving, and help-giving quality. It was hypothesized that, (1) teammates would emerge as primary sources of help-seeking and help-giving during periods of mental ill- health, (2) help-giving quality of student-athletes would be low, and (3) efficacies would significantly predict help-seeking, help-giving, and help-giving quality. The purposes, hypotheses, and associated analyses are presented in Table 1.

Table 1. Study Purposes, Hypotheses, and Analyses

	Purpose	Hypothesis	Analysis
1	To determine sources of athlete help-seeking and help-giving. **Help-seeking sources:** individuals athletes seek mental health help from. **Help-giving sources:** individuals athletes refer teammates to for mental health help	(a)Teammates will be the primary source of athlete help-seeking. (b) Athletes will be most likely to send teammates to other teammates for mental health help.	Frequency counts
2	To determine the help-giving quality of student-athletes.	Help-giving quality of student-athletes will be low.	Means and Standard Deviations
3	To determine whether self-efficacy, other-efficacy or RISE predict help-seeking/help-giving sources and help-giving quality	All three efficacies will significantly predict help-seeking/help-giving sources and help-giving quality	Hierarchal Regressions

METHODS[1]

Participants

Participants in this study were 124 Division I Women's Soccer Players, (Figure 3). Athletes attended universities in the Midwest, South, and North-East regions of the United States. The study population included 35 colleges and universities across 13 different athletic conferences, ranging from Power 5 conferences to smaller conferences in the region (ACC, SEC, BIG 10, BIG 12, AAC, BIG East, A10, CAA, Conference USA, Patriot League, Ivy League, Ohio Valley Conference, Southland Conference, and MAC). Based on G*Power analysis the target sample size to detect medium-sized effects with 3 predictors in the regression (alpha = .05; power = .95) was 119 participants.

Procedures

After receiving approval form the University International Review Board, participants for the study were recruited via the principal investigator's existing relationships with athletes. One to two designated athletes from each team (whom had an established relationship with the principal investigator) were sent an IRB approved description and link to the online questionnaire. These athletes were instructed to send this link to the other athletes on their teams. This procedure was followed for 29 of the 35 teams contacted for this study. Participants were also given permission to share the survey link and description with other Division 1 women's soccer player's resulting in the recruitment of the remaining six teams. The study was open from November 2020 to January 2021. Follow up reminders were sent at the halfway point and a few weeks before the study closed. Athletes from each team were informed that the top four teams

[1] ***Note.*** The data for this study has been collected as part of a larger study funded by the Association for Applied Sport Psychology. The author of this thesis was a co-investigator on the grant and lead data collection procedures.

with the greatest percentage of team-level completion would be entered to win a raffle for $20 Amazon gift cards. Prior to beginning the online questionnaire, athletes consented to participation in the investigation. They completed a questionnaire comprised of measures of demographic information, self-efficacy, other-efficacy, RISE, help-seeking and help-giving behaviors, and an open-ended question about an experience helping a teammate with a mental health issue.

Measures

Demographics

Participants were asked to identify birth year, ethnicity, university or college attended, eligibility at their current school, time spent with their current team, and their status on the team (starter, non-starter, injured).

Efficacy Beliefs

An amended version of the Mental Health Referral Efficacy questionnaire was used to measure student-athletes' referral efficacy concerning mental health help (Van Raalte et al., 2015). The original measure included 8 items, such as "How confident are you that you can find resources related to mental health problems?". The measure uses a 10-point Likert scale response format ranging from 0 (not at all confident) to 10 (completely confident). To measure the three types of efficacy beliefs in the current study, the same items were associated with a stem sentence representing each efficacy belief. Specifically, "I am confident in my ability to" that indicates participants should focus on self-efficacy (this was the original stem sentence of the measure). The stem sentence, "I am confident in my **teammates ability** to…" indicates other-efficacy and "**My teammates** are confident in **my ability**…" indicates that participants should

focus on RISE. The remaining items from these measures can be found in Appendix A. Cronbach's alpha for the original measurement was reported to be .95 (Van Raalte et al., 2015).

Help-Seeking and Help-Giving Behaviors

To assess help-giving and help-seeking behaviors, an adapted version of Habeeb and colleagues' (2022) measure of Help-Seeking Intentions was used. This measure used a 6-item, 7-point Likert scale ranging from 1 (extremely unlikely) to 7 (extremely likely). To assess help-seeking, athletes were asked to indicate their likelihood of seeking mental health help from a variety of individuals in a sports context (head coach, athletic trainer, another teammate, a student-athlete from a different team, or a mental health professional). This was a reduced list on the original measure. In the original measure athletes' relatives, partners, academic advisors, athletic administrators, and faculty members were also included. The current study was concerned with evaluating athlete help-seeking and help-giving sources within an athletic department, so relatives and partners were excluded from the current study. This decision was supported by findings from Habeeb et al. (2022) that less than one quarter of participants indicated their likelihood of seeking help from academic advisors, athletic administrator, and faculty members. Furthermore, the on- and off- campus mental health professional sources were combined into a single mental health professional category. To measure help-giving, athletes indicated the likelihood of referring a teammate to the sources available to athletes (a modification of the original stem sentence). The items for these measures can be found in Appendix A.

Help-Giving Quality

An open-ended question was used to assess help-giving quality. Student-athletes were asked to "*Describe a time a teammate came to you with a potential mental health issue. Provide*

a detailed explanation of what you did to help them with their problem." Responses were graded based on the Teen Mental Health First Aid Action Plan (tMHFA; Hart et al., 2016). Participants were graded on a scale from 0-2 for each corresponding step of the tMHFA: (Look for Warning Signs, Ask How They Are, Listen Up, Help Them Connect with an Adult, Your Friendship is Important) The "Help them Connect with an Adult" category was changed to "Help them Connect with a Staff Member." Staff members were described as coaches, athletic trainers, and mental health professionals. Description of the categories and corresponding evaluation scale used for the current study can be found in Appendix B. Scores of each category were summed to form an overall help-giving quality score. These sums were used in analysis of help-giving quality data.

Analyses

All data analyses were conducted using SPSS Version 28.0. Analyses were conducted in five phases: interrater reliability and Cronbach's alpha, screening data, calculating descriptive statistics, testing of assumptions, and performing correlations and regressions.

Phase 1. To code the written responses, the principal researcher trained two assistants to evaluate open-ended responses according to the tMHFA rubric. The research team individually rated each response using the tMHFA rubric (Appendix B). Then, the researchers met, and discussed any disagreement until 100% of the responses' evaluations were agreed upon. Agreed upon responses formed the final grade for each category. The sum of each category was used to form a final help-giving grade which was used to test Hypothesis 2 and used in subsequent analyses for Hypothesis 3. Next, interrater reliability was calculated. Cronbach's alpha was calculated to determine the internal reliability for the amended measures.

Phase 2. The data was screened for univariate and multivariate outliers using Z-scores and Mahalanobis distances. Additionally, Little's Missing at Random test was used to assess type of missing data. Means were imputed for partially missing data sets (as described in the results section).

Phase 3. Means and standard deviations for efficacy beliefs, help-seeking and help-giving intentions, and quality of athlete help were calculated. Frequency counts were used to address the first hypothesis. Athletes that indicated they were at least slightly likely (associated with a 5-7 on the scale) were counted as likely to seek help or refer others to help from the respective source. The number of athletes that indicated they were at least slightly likely were divided by the total sample to calculate a percentage of athletes likely to use the source.

Phase 4. The Kolmogorov-Smirnov test was run to test the assumption of normality. Data that was not normal was transformed. Non-parametric data was reflected then a square root transformation was applied. Multicollinearity was determined using tolerance and VIF values.

Phase 5. Pearson's correlations were run to determine bivariate relationships between the study variables. Regression analyses were performed to test the third hypothesis. Hierarchal regressions were conducted to examine help-seeking and help-giving efficacies (self-efficacy, other-efficacy, and RISE) as predictors of (a) help-seeking (b) help-giving and (c) help-giving quality. For each regression, step one involved inputting self-efficacy only, step two included adding other-efficacy, and step three included adding RISE. This order was followed due to the literature's support of self-efficacy as an important variable effecting behavior, other-efficacy is supported as well but there is limited research. Previous studies also support RISE as an important construct but often report it as being influenced by self- and other-efficacy, P-values of

less than .05 were used to determine significance and R-squared and change in R-squared was used to determine variance explained by the predictors.

RESULTS

Phase 1: Interrater Reliability and Cronbach's Alpha

In Phase 1 of analysis, Cronbach's alpha and interrater reliability were calculated. Cronbach's alpha was calculated for the amended efficacy measures, help-seeking and help-giving measures. Cronbach's alpha were .88, .92, and .94 for self-efficacy, other-efficacy, and RISE, respectively. Cronbach's alpha for the help-seeking and help-giving scale were .70 and .66. Given the lower reliability of these scales, outcomes were also examined based on the individual athletes engaged with during helping. Habeeb et al. (2022) also used this approach because it was expected that participant answers would not be consistent for each person listed. The principal investigator and two assistants evaluated each open-ended response according to tMHFA guidelines. Following, the research team met and produced a final data set of help-giving scores. Interrater reliability for total help-giving scores was .830 indicating there was a large level of agreement among the raters, even before discussion to agreement were conducted.

Phase 2: Screening for Outliers

Little's Missing completely at Random (MCAR) test was not significant indicating the missing data could be assumed to be missing at random. Univariate outliers were identified by standardized Z-scores greater than +/- 3.29 ($p < .001$, two-tailed). Multivariate outliers were identified by Mahalanobis distances greater than a critical value of 22.46 ($df = 6$, $p < .001$). Based on this criteria, three cases were discarded leaving a final sample size of 124. Mean imputations were conducted to address incomplete other-efficacy, RISE, and help-seeking behavior items in three cases. In the first case, the participant had not answered any of the RISE items and so the missing data was replaced with the entire sample's mean for RISE items. In the second case, a participant had left one of the other-efficacy items missing and so the participant's

average for the remaining other-efficacy items was input to alleviate the missing data point. For the third case, a participant left two help-seeking behavior items were missing and so the participant's average for the remaining other-efficacy items was inputted.

Phase 3: Descriptive Statistics

Figure 2 depicts a flow chart explaining the final sample size. A total of 307 Division 1 Women's Soccer Players started the online survey. Of this sample 180 cases were discarded for the following reasons: failure to complete the open-ended question (n = 143), no experience with aiding a teammate with a mental health problem (n = 30), unrelated or incomplete open-ended response answers such as "when I felt depressed" or "confidence" (n = 7). The final sample consisted of 124 Division 1 women's soccer players. Table 1 includes a breakdown of sample characteristics. The study population was entirely female between the ages of 18-23 years old (M = 19.91 SD =1.36). The sample was primarily white (88.7%) followed by black/African-American (8.9%), Latina (8.1%), Asian/Asian American (3.4%), and Arab/Middle Eastern (.8%). Most of the sample were freshmen (29.8%). A quarter of the sample were seniors (25%), followed by juniors (21.8%), sophomores (17.7%), and graduate students/fifth year seniors (5.6%). On average participants had spent 2.2 years with their current team (SD =1.40). Concerning their role on their team, 41.9% were starters, 42.7% were non-starters, and the rest were injured (15.3%). Table 2 shows further break down of sample characteristics.

Figure 2. Sample Flowchart

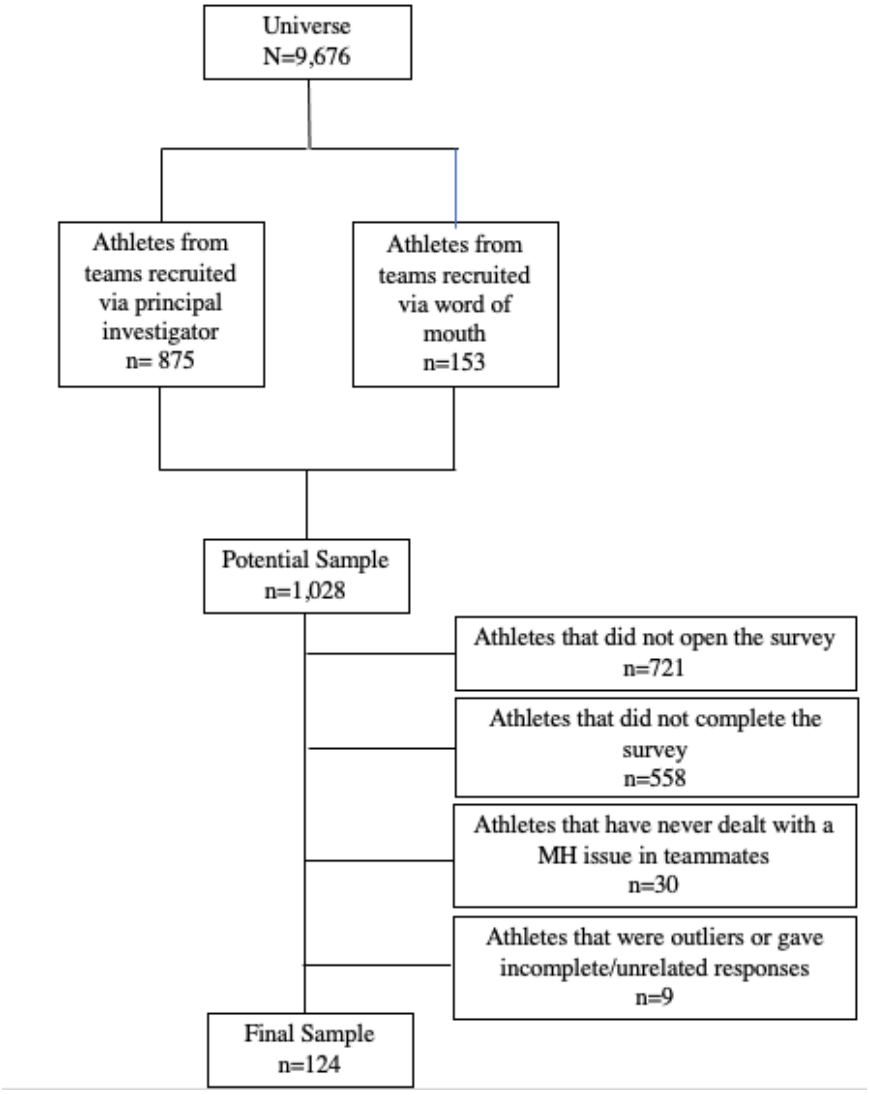


Table 2. Sample Characteristics

		n	%	M	SD
Age				19.97	1.36
Time with Team:				2.24	1.40
Academic Year					
	Freshman	37	29.8		
	Sophomore	22	17.7		
	Junior	27	21.8		
	Senior	31	25		
	Graduate Student/ 5th Year Senior	7	5.6		
Ethnicity					
	White	110	88.7		
	Black/African American	11	8.9		
	Latino/a	10	8.1		
	Asian/Asian American	3	3.4		
	Arab/Middle Eastern	1	.8		
Current Role					
	Starter	52	41.9		
	Non-Starter	53	42.7		
	Injured	19	15.3		

Table 3 lists descriptive statistics for efficacy variables, help-seeking and help-giving behaviors, and quality of help-giving scores. Participants reported slightly above the scale mid-point for self-efficacy, other-efficacy, and RISE. Mean self-efficacy and RISE values were similar at 7.38 (*SD* = 1.57) and 7.30 (*SD* =1.71), respectively. Participants other-efficacy scores were lower than self-efficacy and RISE (*M* = 6.76, *SD* = 1.85). Mean scores of help-seeking behaviors reveal that athletes reported being slightly likely to seek help (*M* = 4.44, *SD* = 1.10) from sources within the athletic context. Help-giving scores show similar results with athletes indicating a slightly higher likelihood of referring a teammate to a source within athletics (*M* = 4.70, *SD* = 1.00). Mean help-giving quality scores revealed athlete help-giving is moderate (*M* = 4.78, *SD* = 1.83). Table 4 depicts a breakdown of the means and standard deviations for each of the tMHFA categories. Student-athletes performed the best for the "Ask How They Are"

category (*M* =1.45, *SD* =.74). The "Noticing Warning Signs" category saw the lowest mean scores (*M* =.31, *SD* = .67).

Table 3. Descriptive Statistics

	Mean	SD	Min	Max
Help-Seeking	4.44	1.10	1.33	6.67
Help-Giving	4.70	1.00	1.83	7
Self-Efficacy	7.38	1.57	2.63	10
Other-Efficacy	6.76	1.85	1.75	10
RISE	7.30	1.71	1.50	10
Help-Giving Quality	4.78	1.83	0	10

Help-Seeking/Help Giving Scale (0-7)
Efficacies and Help-Giving Quality Scale (0-10)

Table 4. Help-Giving Quality Descriptive Statistics

	Mean	SD	Min	Max
Warning Signs	.31	.67	0	2
Ask How They Are	1.45	.74	0	2
Listen Up	.85	.59	0	2
Connect With a Staff Member	.94	.95	0	2
Friendship is Important	1.22	.89	0	2

Category Scales (0-2)

In addition to means and standard deviations, frequencies were calculated for help-seeking and help-giving behaviors to determine who athletes are most likely to seek help from and refer teammates to during periods of mental ill-health. Tables 5a and 5b show the frequency counts for each source of help-seeking and help-giving. Student-athletes were most likely to seek help from mental health professionals (82.3%) and teammates (77.4%). Participants were least likely to seek help from head coaches (39.5%) and other-athletes (42.7%). When their teammates are experiencing mental health concerns athletes were most likely to refer them to mental health professionals (88.7%) and other teammates (70.2%). Only 29.8% of athletes were likely to refer a teammate struggling with a mental health issue to an athlete on a different team. In addition, 48.4% of athletes were likely to refer a teammate to a head coach.

Table 5a. Help-Seeking Behaviors				
	Unlikely (n)	Unlikely (%)	Likely (n)	Likely (%)
Teammates	23	18.5	96	77.4
Other-Athletes	67	54.0	53	42.7
Head Coach	62	50.0	49	39.5
Assistant Coach	45	36.3	70	56.4
Mental Health Professional	12	9.7	102	82.3
Athletic Trainer	39	31.4	70	56.4

Table 5b. Help-Giving Behaviors				
	Unlikely (n)	Unlikely (%)	Likely (n)	Likely (%)
Teammates	23	18.5	87	70.2
Other-Athletes	68	54.8	37	29.8
Head Coach	45	36.3	60	48.4
Assistant Coach	30	24.2	76	61.3
Mental Health Professional	5	4.0	110	88.7
Athletic Trainer	24	19.3	81	65.3

Phase 4: Testing Assumptions

Following the management of incomplete data, tests for the assumption of normality were run. Initial run of the Kolmogorov–Smirnov (KS) test revealed that self-efficacy, other-efficacy, RISE, help-seeking, and help-giving quality data were not normal and negatively skewed. Help-giving behavior data was normally distributed. For parametric testing, non-normal data was first reflected to address the negative skew, then a square root transformation was applied which rendered the data normal. To address the change in values from the reflection, all data was multiplied by negative one. After repeating the KS test, efficacy and help-seeking data were normal. However, help-giving quality data was not normal despite the use of several transformations, and this is likely due to the evaluation including only 3 levels reducing amount of potential variation. As a result, help-giving quality data was not transformed. Tests of multicollinearity revealed that it was not a concern for other-efficacy, help-seeking, help-giving

and help-giving quality totals. Multicollinearity values for self-efficacy and RISE were highest but still within an acceptable standard (Tolerance > .10, VIF < 10).

Table 6. Multicollinearity Statistics

	Tolerance	VIF
Help-Seeking	.62	1.61
Help-Giving	.64	1.57
Self-Efficacy	.19	5.20
Other-Efficacy	.30	3.36
RISE	.17	5.95
Help-Giving Quality	.90	1.11

Phase 5: Correlations and Regressions

Transformed data were used to calculate Pearson's correlations where applicable. Table 7 depicts Pearson's Correlations for study variables. Correlations less than .29 were considered small, correlations between .30 and .49 were moderate. Any correlations greater than .49 were large. A large positive relationship exists between the efficacy variables. The greatest of these relationships was observed between self-efficacy and RISE (r =.89, p <.001) followed by the relationship between other-efficacy and RISE (r =.82, p <.001). The smallest relationship existed between other-efficacy and self-efficacy (r =.78, p <.001), although this is still strong in magnitude. All three of the efficacy variables showed similar moderate positive relationships with help-seeking. The greatest of these relationships exists between RISE and help-seeking (r =.35, p = <.001), followed by other-efficacy and help-seeking (r = .33, p<.001), and self-efficacy and help-giving (r =.31, p <.001). Help-giving showed small positive relationships with self-efficacy (r =.27, p= .002), RISE (r =.29, p = .001), other-efficacy (r = .31, p <.001). Of the all the variables, only self-efficacy showed a significant bivariate relationship with help-giving quality. There was a small, positive relationship between self-efficacy and help-giving quality (r = .21, p = .021). There was a moderate to large relationship between help-seeking and help-giving (r = .59, p <.001).

Table 7. Pearson's Correlations						
	Self-Efficacy	Other-Efficacy	RISE	Help-Seeking	Help-Giving	Help-Giving Quality
Self-Efficacy	-	.78**	.89**	.31**	.27**	.21*
Other-Efficacy		-	.82**	.33**	.31**	.02
RISE			-	.35**	.29**	.14
Help-Seeking				-	.59**	.07
Help-Giving					-	.09
Help-Giving Quality						-

** Correlation is significant at the $p < 0.01$ level (2-tailed)
*Correlation is significant at the $p < 0.05$ level (2-tailed)

Help-Seeking

To test the third hypothesis for this study, a series of step wise regressions were run to determine whether the efficacy variables predicted help-seeking in teammates and mental health professionals, the two most likely sources of help-seeking. Tables 8 and 9 show results of these regressions. In step one, self-efficacy was a significant predictor of seeking help from a teammate ($\beta = .191$, $p = .034$; $R^2 = .028$, $F = (1,122) = 4.603$, $p=.034$). In step two, other-efficacy was added; self-efficacy was no longer a significant predictor ($\beta = -.114$, $p = .410$) and other-efficacy was a significant predictor of seeking help from a teammate in this model ($\beta = .391$, $p = .005$; ($R^2 = .081$, $F (2,121) = 6.45$, $p=.005$). In step three, RISE was added. In this step, other-efficacy remained a significant predictor of seeking help from a teammate ($\beta =.384$, $p = .014$); however, RISE and self-efficacy were not ($\beta = -.129 - .024$, $p = .505 - .911$; $R^2=.07$, $F (3,120) = 4.273$, $p= .911$).

Table 8. Regression Results for Teammate Help-Seeking

Model		Unstandardized Coefficients		Standardized Coefficients	t	*p* value	Adjusted R Square	R Square
		B	Std. Error	Beta				
1	Constant	6.436	0.620		10.374	<.001		
	Self-Efficacy	0.700	0.326	.191	2.145	.034	.028	.036
2	Constant	6.947	0.630		11.035	<.001		
	Self-Efficacy	-0.418	0.506	-.114	-0.827	.410		
	Other-Efficacy	1.289	0.454	.391	2.836	.005	.081	.060
3	Constant	6.943	0.634		10.956	<.001		
	Self-Efficacy	-0.474	0.708	-.129	-0.669	.505		
	Other-Efficacy	1.264	0.507	.384	2.494	.014		
	RISE	0.079	0.704	.024	0.112	.911	.074	.000

To assess the efficacies' ability to predict seeking help from a mental health professional, another hierarchal regression was run. In step one, self-efficacy was input. Self-efficacy was a significant predictor of seeking help from a mental health professional (β =.214, p = .017; R^2= .04, F (1,122) = 5.87, p= .017). In step two, other-efficacy was added. In this step, self-efficacy remained significant (β =.361, p = .011); however, other-efficacy did not significantly predict seeking help from a mental health professional (β = -.184, p = .183; R^2 = .04, F (2,121) = 3.85, p= .183). Lastly, RISE was added to the model; in this step none of the efficacy variables were significant predictors of seeking help from a mental health professional (β = -.328 - .262, p = .132 - .472; R^2 = .04, F (3,120) = 2.11, p = .47).

Table 9. Regression Results for Mental Health Professional Help-Seeking								
Model		Unstandardized Coefficients		Standardized Coefficients	t	*p* value	Adjusted R Square	R Square
		B	Std. Error	Beta				
1	Constant	7.005	0.599		11.692	<.001		
	Self-Efficacy	0.763	0.315	.214	2.422	.017	.038	.046
2	Constant	6.766	0.623		10.855	<.001		
	Self-Efficacy	1.286	0.501	.361	2.568	.011		
	Other-Efficacy	-0.603	0.450	-.189	-1.340	.183	.044	.014
3	Constant	6.735	0.626		10.760	<.001		
	Self-Efficacy	0.934	0.700	.262	1.334	.185		
	Other-Efficacy	-0.760	0.501	-.238	-1.519	.132		
	RISE	0.502	0.696	.154	0.722	.472	.041	.004

Help-Giving

Tables 10 and 11 show the results of the hierarchal regressions run to determine the predictive ability of efficacies on specific help-giving sources.

The two most likely help-giving sources were teammates and mental health professionals. Table 11 shows the results of the regression run to determine the relationship between efficacies and referring teammates to other teammates. In step one, self-efficacy was inputted. Self-efficacy was not a significant predictor of referring a teammate to another teammate ($\beta = .144$, $p = .110$; $R^2 = .013$, $F(1,122) = 2.587$, $p = .110$). In step two, other-efficacy was added. In this step, self-efficacy was not significant ($\beta = -.082$, $p = .562$). Other-efficacy was a significant predictor of referring a teammate to another teammate during a mental health issue ($\beta = .290$, $p = .042$; $R^2 = .038$, $F(2,121) = 3.445$, $p = .042$). Lastly, RISE was added to the model in step three; other-efficacy remained significant ($\beta = .353$, $p = .026$). However, self-efficacy ($\beta = .044$, $p = .824$) and RISE ($\beta = -.197$, $p = .360$) were not significant predictors of referring a teammate to another teammate ($R^2 = .06$, $F(3,120) = 2.574$, $p = .360$).

Table 10. Regression Results for Teammate Help-Giving								
Model		Unstandardized Coefficients		Standardized Coefficients	t	*p* value	Adjust R Square	R Square
		B	Std. Error	Beta				
1	Constant	6.104	0.657		9.291	<.001		
	Self-Efficacy	0.555	0.345	.144	1.608	.110	.013	.021
2	Constant	6.503	0.677		9.608	<.001		
	Self-Efficacy	-0.316	0.544	-.082	-0.582	.562		
	Other-Efficacy	1.005	0.488	.290	2.057	.042	.038	.033
3	Constant	6.545	0.679		9.642	<.001		
	Self-Efficacy	0.169	0.759	.044	0.223	.824		
	Other-Efficacy	1.222	0.543	.353	2.251	.026		
	RISE	-0.693	0.754	-.197	-0.918	.360	.037	.007

Table 11. Regression Results for Mental Health Professional Help-Giving								
Model		Unstandardized Coefficients		Standardized Coefficients	t	*p* value	Adjusted R Square	R Square
		B	Std. Error	Beta				
1	Constant	7.528	0.484		15.549	<.001		
	Self-Efficacy	0.796	0.254	.273	3.131	.002	.067	.074
2	Constant	7.486	0.507		14.760	<.001		
	Self-Efficacy	0.888	0.407	.304	2.179	.031		
	Other-Efficacy	-0.106	0.366	-.040	-0.289	.773	.060	.001
3	Constant	7.427	0.504		14.727	<.001		
	Self-Efficacy	0.212	0.564	.072	0.375	.708		
	Other-Efficacy	-0.408	0.403	-.155	-1.011	.314		
	RISE	0.965	0.560	.362	1.722	.088	.075	.022

The ability of the efficacy variables to predict referring another to a mental health professional was also assessed; results are shown in Table 12. In step one, self-efficacy was added. Self-efficacy was a significant predictor of referring another to a mental health professional (β =-.273, p = .002; R^2 = .067, F (1,122) = 9.800, p = .002). In step two, other-efficacy was added. In this step, self-efficacy (β = .304, p = .031) remained a significant predictor; however, other-efficacy was not a significant predictor of referring to a mental health

professional (β =-.040, p = .773; R^2 = .060, F (2,121) = 4.905, p = .773). In step three, RISE was added and none of the efficacy variables significantly predicted referring a teammate to a mental health professional (β =-.155 - .362, p = .088 - .708; R^2 = .075, F (3,120) = 4.311, p = .088).

Help-Giving Quality

The final regression was used to predict help-giving quality based on the efficacy variables, and these results are shown in Table 12. In step one, self-efficacy was inputted. Self-efficacy emerged as a significant predictor of help-giving quality. (β =.207, p = .021; R^2 = .035, F (1, 122) = 5.453, p = .021). In step two, other-efficacy was added to the model. In this step, self-efficacy (β = .490, p = .001) and other efficacy were significant predictors of help-giving quality (β = -.363, p = .010; R^2 = .080, F (2,121) = 6.322, p = .010). In step three, RISE was added. Self-efficacy (β = .467, p = .017) and other-efficacy (β = -.375, p = .016) remained significant predictors of help-giving quality, but RISE was not (β =.036, p = .864; R^2 = .072, F (3,120) = 4.190, p = .864)

Table 12. Regression Results for Help-Giving Quality

Model		Unstandardized Coefficients		Standardized Coefficients	t	*p* value	Adjusted R Square	R Square
		B	Std. Error	Beta				
1	Constant	6.470	0.741		8.737	<.001		
	Self-Efficacy	0.909	0.389	.207	2.335	.021	.035	.043
2	Constant	5.901	0.755		7.819	<.001		
	Self-Efficacy	2.152	0.606	.490	3.549	.001		
	Other-Efficacy	-1.433	0.545	-.363	-2.632	.010	.080	.052
3	Constant	5.892	0.760		7.758	<.001		
	Self-Efficacy	2.051	0.849	.467	2.415	.017		
	Other-Efficacy	-1.479	0.607	-.375	-2.434	.016		
	RISE	0.145	0.844	.036	0.172	.864	.072	.000

DISCUSSION

The general aim of this study was to evaluate trends in mental health help-seeking and giving in student-athletes as it relates to various forms of efficacy. Specifically, this study evaluated sources of student-athletes' help-seeking and help-giving, the quality of student-athlete help-giving, and calculated the predictive ability of self-efficacy, other-efficacy and RISE on help-seeking and help-giving. Previous research has identified teammates as primary help-givers during periods of mental ill health (Bird et al., 2018; Cutler, 2020). Self-efficacy and relational efficacies have been shown to influence help-seeking and help-giving behaviors and may explain trends in athlete-mental health behaviors (Lent & Lopez 2002; Stutts, 2002;Berman, 2006; Dutton et al., 2009; Glasofer et al., 2013; Rossetto et al., 2018). As a result, I hypothesized that (1) student-athletes would emerge as the most prominent source of help-seeking and help-giving, (2) help-giving quality in student-athletes would be poor (3) all three efficacy variables would predict help-seeking/giving and help-giving quality. The following chapter serves to evaluate the degree to which these hypotheses were supported, key findings, and links to future research and applications.

Help-Seeking and Help-Giving Sources

The first hypothesis, that teammates would emerge as primary sources of help-seeking and help-giving was not supported. Results showed that student-athletes were most likely to seek help from and refer others to mental health professionals during periods of mental ill health. Overall, 82.3% and 88.7% of athletes indicated that they were likely to seek help from a mental health professional or refer a teammate to a mental health professional during a mental health issue. Teammates, however, were the second most common source of help-seeking and help giving with 77.4% of student-athletes indicating that they were likely to seek help from a

teammate during periods of mental ill health. Similarly, 70.2% of participants indicated that they would refer a teammate with a mental health problem to another teammate. The percentage of athletes likely to seek help from a teammate were similar to other studies. Similar to findings of this study, Habeeb et al. (2022) found 81.9% of athletes were likely to seek help from a teammate. However, only 59.3% of athletes reported likelihood to seek help from an on campus mental health professional and 37.8% of athletes reported that they were likely to seek help from an off campus mental health professional. In the current study, there was no distinction between on and off campus mental health help which may explain differences between the two studies. Results may represent differences between the study population and the greater student-athlete population and shifts in the attitudes of athletes. This sample was comprised solely of female athletes who have shown a greater likelihood for seeking formal mental health help from a professional (Moreland et al., 2018). Male athletes tend to have less favorable views of seeking help from sports psychologists. Additionally, male athletes have shown to have more negative views of athletes who seek help for mental health issues compared to those who seek help for mental performance issues (Gulliver et al., 2012).

The findings of the current study may also represent a complimentary relationship between informal and formal help-seeking. A study of 710 students found that 55% of the sample reported intentions to use informal and formal help-seeking sources (Avanzo et al., 2012). Seeking both informal and formal help may be related to symptom severity. Often, when individuals are distressed, they seek help from informal sources such as friends and family. When symptoms of distress exceed the capacity of the informal source, those suffering from mental health concerns tend to rely on formal sources (Schonert-Reichl et al., 1995). However, this does not stop informal help-seeking, rather it operates to reinforce formal help-seeking

(Schonert-Reichl et al., 1995). The propensity to seek help and refer others to teammates and mental health professionals may illustrate the partnership between informal and formal help-seeking.

The findings of this study may also represent a shift in athletes' perception of mental health issues. Athletes reported they hesitated to seek professional mental health help due to stigma and discomfort in previous studies (Bird et al., 2020; Castaldelli-Maia et al., 2019). Within the athletics community there has been a recent surge in promoting mental health and reducing stigma to seek-help. Legislation adopted by major athletic conferences in the United States have mandated mental health resource availability and education for all student-athletes (Brutlag Hosick, 2019). Individual colleges and Universities are also educating their athletes about mental health. The University of Pennsylvania, for example, has launched the "Keep Your Head Up" program to ensure that student-athlete mental well-being remains a focus point of the college athlete experience. Similarly, "We're All Teammates" is an online platform that allows athletes to share their experiences with mental health and communicate with similar others. These initiatives may mark a shift in attitudes towards mental health in collegiate athletics resulting in increased likelihood of seeking and referring others to formal mental health help.

Shifts in stigma related to mental health help-seeking could be influenced by the COVID-19 pandemic which has forced a worldwide conversation about mental health (Snider & Flaherty, 2020). This study took place during the pandemic which effected the lives of many athletes due to the unexpected canceling of the Spring and Fall 2020 season. The uncertainty surrounding effects of COVID-19, lockdowns, and quarantining took a toll on the mental health of those who were already struggling with mental health issues and those without (Moreno et al., 2020). A study of 2,031 college student found that almost half reported moderate to severe levels of

depression and about 38% of participants reported moderate to severe levels of anxiety. A majority of respondents indicated that their anxiety and stress levels had increased as a result of the pandemic. In addition, less than half of students indicated that they could handle stressors during the pandemic (Wang et al., 2020). The increase in widespread stress, anxiety, and depressive symptoms has led to the recognition for the need of mental health resources. As a result of the COVID-19 pandemic, universities have pushed the importance of seeking mental health help, which could reduce stigma surrounding help-seeking in student-athletes. Given the timing of this study, participants may have been more likely to indicate their likelihood for seeking mental health help due to the worldwide conversation about mental health.

Help-Giving Quality

This was one of the first investigations into student-athletes' help-giving quality. Results revealed that athlete help-giving quality was moderate which did not support the hypothesis that help-giving quality would be low. While relatively few studies have assessed help-giving quality, a study assessing adult's ability to provide help to their adolescent children used a similar grading scale (Morgan et al., 2020). On average, the sample scored about a 20% on their help-giving rubric which is lower than the current study's sample (47%). Athletes scored the lowest for "Noticing Warning Signs." This is reflective of a need for increased mental health literacy, noticing signs and symptoms of mental health issues and knowledge of source of help (Hart et al., 2016). Lack of mental health literacy can be a barrier to help-seeking and help-giving in athletes (Gulliver et al., 2010). Interventions that aim to increase mental health literacy have been shown to address help-seeking and help-giving issues in collegiate athletes. An intervention aimed at reducing stigma and increasing mental health literacy found that mental health literacy scores increased from baseline to post-intervention and remained elevated post-intervention.

There were also statistically significant increases in intentions to seek counseling from pre- to post intervention that were sustained one-month post-intervention (Chow et al., 2020). Overall, mental health literacy is important in being able to recognize potential signs of mental health issues in athletes. Additionally, the first stage of the Help-Giving Model (Rossetto et al., 2018) recognizes that the helper noticing signs and symptoms of a mental health issue is the first step in considering involvement. Increased ability to recognize these symptoms, or increased mental health literacy, may lead to greater help-giving quality.

Athletes scored the highest in the “Ask How They Are" categories indicating their ability to have specific conversations about potential problems. Teammates are perfectly placed to address mental health issues in their peers given their shared experiences and close relationships. Results of this study indicate that teammates are comfortable having specific conversations with their peers; however, they may lack the ability or education to have effective and productive conversations. Low scores for the “Listen Up” category further emphasize the weakness in student-athletes’ ability to participate in specific conversations that lead to adequate help-giving. Many athletes in the study mentioned “listening” but neglected to provide details about validating their teammates feelings and remaining nonjudgmental. Also, many often reported giving advice in place of listening. These results may indicate that athletes are aware that conversations about mental health must be initiated but are unaware of how to properly facilitate these conversations.

Additionally, athletes reported moderate scores for the “Connect Them With a Staff Member.” This indicates that athletes understand the need to refer those with mental health issues to professional help when applicable. Mental health interventions have attempted to address the referral problem within the student-athlete population by decreasing stigma and

increasing mental health literacy (Chow et al., 2020). This has been shown to increase referral efficacy and knowledge of referral sources (Chow et al., 2020). Athletes had high scores in the final category of the tMHFA rubric "Your Friendship is Important." This section of the rubric is about showing ongoing support for the individual extending beyond concern for their mental health issue. This category reflects a friendship between the helper and the recipient which is likely already present in a teammate relationship.

Help-Seeking and Efficacy

The third hypothesis stated that self-efficacy, other-efficacy, and RISE would positively predict help-seeking, help-giving, and help-giving quality. This hypothesis was partially supported. Self-efficacy significantly predicted seeking help from a teammate and seeking help from a mental health professional. Other-efficacy significantly predicted seeking help from a teammate. RISE did not predict any aspect of seeking help. Help-seeking is a result of an individual's perception of their ability to find help during a mental health issue. Previous research has shown the relationship between help-seeking and self-efficacy (McKinley, 2014). Decreased self-efficacy beliefs are associated with decreased likelihood of seeking mental health help (Garland et al., 1994). By contrast, willingness to seek help for a mental health issue is directly related to seeking help in the future (Mojtabai et al., 2016). In athletes, increases in help-seeking self-efficacy are also related to help-seeking intentions. Many interventions that aim to improve mental health help-seeking have evaluated the role of self-efficacy. The Surviving Teens Suicide Awareness and Depression program aims to educate about the risk factors of mental illness that may contribute to suicidal thoughts, provide coping strategies for stressors, and assist in locating mental health resources (King et al., 2011). The intervention was conceptualized based on SCT and aims to improve mental well-being in teens by increasing self-

efficacy. After a 3-month period, post intervention participants reported an increase in students' ability to seek help from parents and friends about their problems (King et al., 2011).

Self-efficacy beliefs were also significantly predictive of seeking help from a mental health professional. A 2018 study found that self-efficacy was especially important in the relationship between an athlete and their mental health professional. Athletes reported that seeking help from their mental health professional boosted their belief in their ability to overcome their mental health problem (Bird et al., 2018). Additionally, other-efficacy was a significant predictor of seeking help from a teammate. Other-efficacy is an individual's perception of another's abilities. The questions pertaining to other-efficacy directly asked the participant to assess their belief in their teammates ability to provide mental health help. As a result, greater scores would directly related to increases in intentions to seek help from teammates.

While self-efficacy's relationships with behaviors are often assessed, this study shows the importance of other-efficacy in predicting behaviors as well. A study of equestrian eventing revealed a significant correlation between self- and other-efficacy. Additionally, other-efficacy significantly predicted performance and was able to account for variance in performance outside of self-efficacy (Beauchamp & Whinton, 2005). Similarly, in the current study, other-efficacy emerged as a significant predictor in both seeking help from a teammate and help-giving quality, providing evidence of its distinct relationship with mental health behaviors. Overall, findings of the current study suggest that other-efficacy may serve as an important predictor of athlete mental health behaviors as previously found in performance outcomes.

Help-Giving and Efficacy

As it relates to overall help-giving and mental health professionals as a referred source of help-giving, self-efficacy emerged as a significant predictor. These findings support previous research that asserts self-efficacy as a determinant of help-giving behaviors. A study examining the reasons that individuals do not provide mental health help revealed feelings of inadequacy or the inability to help, low self-efficacy, was related to decreased help-giving (Morgan & Hart, 2020). Additionally, other-efficacy significantly predicted referring a teammate to another teammate for help. Often individuals report referring those in need of help to more proximal stakeholders to the individual, especially when they perceive themselves as not having a close enough relationship to provide help (Morgan & Rossetto, 2020). Student-athletes who notice or are approached by a teammate with a mental health issue may refer this teammate to someone else on the team who they feel has a better relationship with the distressed individual. Closeness is a consequence of other-efficacy; therefore, perceiving two individuals to have a close relationship would increase the likelihood of referring a distressed teammate to someone they are close to (Jackson et al., 2009).

Help-Giving Quality and Efficacy

` Help-giving quality was significantly predicted by self- and other-efficacy. This finding is in line with SCT and previous research that asserts the existing relationship between self- and other-efficacy and behavior quality. The help-giving model (Rossetto et al., 2018) proposes that self- and other-efficacy act on the helper's consideration to become involved. As an individual perceives they have the ability to provide help and that the recipient is in a position to receive help they are more likely to choose an action on the help-giving spectrum (Rossetto et al., 2018). Increases in these efficacy beliefs may indicate how involved the helper becomes which relates

to overall help-giving quality. In contrast, those who considered themselves to not have the ability to help, low self-efficacy, were more likely to report not providing help (Rossetto et al., 2018; Morgan & Rossetto, 2020). Those who reported low confidence in the recipient's ability to cope with their situation were also less likely to provide help (Rossetto et al., 2018). The findings of the current study support the role of self-efficacy and other-efficacy in the help-giving model.

As previously mentioned, the third hypothesis was only partially supported as RISE showed no significant relationship with any of the outcome variables. In social support situations, RISE acts to bolster self-efficacy (Lent & Lopez, 2002). An individual seeks help when they do not have the ability to cope with stressors themselves, reflective of a decrease in self-efficacy. These individuals rely on the perceived confidence of their source of support on their abilities (RISE) to bolster belief in themselves (Lent & Lopez, 2002). Additionally, studies of coach-athlete and athlete-athlete dyads reported a reciprocal relationship between self-efficacy and RISE (Jackson et al., 2009). Self-efficacy is informed by past experiences completing a task (Bandura, 1997, 1998); evaluations of these experiences are shaped by the individual and referent others and inform RISE beliefs (Jackson et al., 2008; Saville et al., 2014). For example, an athlete's evaluation of their previous successes may come as a result of a coach's feedback. This feedback also serves as an indicator of the coach's confidence in the athlete's ability and influence the athlete's RISE beliefs which influence an athlete's self-efficacy (Saville et al., 2014). In this way, RISE acts as a source of self-efficacy beliefs. Given the strong bivariate correlation between RISE and self-efficacy in this study, RISE could have been source of self-efficacy rather than effecting outcome variables directly.

In terms of help-seeking and help-giving scenarios and help-giving quality RISE explained very little change in outcome variables beyond self-efficacy and other-efficacy.

However, the bivariate correlations indicated that RISE was positively associated with help-giving and help-seeking intentions (but not help-giving quality). This indicates that while RISE is related to help-seeking and help-giving, it does not add any *unique* predictive quality beyond self-efficacy and other-efficacy to these outcomes. Overall, self-efficacy and other-efficacy were key predictors of teammate-to-teammate help.

Future Research

The findings of this study have implications for future research. In the current study, participants were all females; future studies should evaluate help-seeking and help-giving intentions, help-giving quality, and the predictive power of efficacy within male athletes, as they show differences in mental health help-seeking (Hagiwara et al., 2017). Studies should also include various sport types including team and individual sports because extant research has shown differences in anxiety and depressive symptoms in athletes participating in team versus individual sports (Pluhar et al., 2019). Additionally, differing social structures and relationships that exist between team and individual sports may be reflective of different help-seeking and help-giving behaviors. Sports with higher visibility such as basketball and football should be included in future research because athletes in these sports may be less likely to seek help due to increased perceived public stigma.

SCT also proposes the effects of other social-cognitive factors such as outcome expectations may influence behavior. Outcome expectations are an individual's perceived consequences of a certain behavior (Bandura, 1998). As it relates to help-seeking and help-giving outcome expectations may influence who an individual seeks help from or their decision to provide help. Future research should evaluate the role of outcome expectations on student-

athlete help-seeking and help-giving and whether these expectations are influenced by help-seeking and help-giving sources.

Limitations and Strengths

Overall, the study adds to the knowledge base by evaluating athlete help-seeking and help-giving behaviors and help-giving quality, and their relationship with efficacies. This was the first study to assess help-giving quality in teammate-to-teammate helping by using the tMHFA rubric. This evaluation tool allows for the pinpointing of specific problem areas within athlete help-giving which can be used to inform interventions. This study also assessed the predictive role of all three efficacy variables; previous research has only considered the role of self-efficacy on mental health outcomes. Also, most previous studies only assessed the help-seeking intentions of student-athletes; this study adds to the knowledge base by considering who athletes are referring their teammates to. These strengths provide a contribution to theory and have real-world implications.

There are several limitations to the current study that may limit generalizability of the results. The current study's sample was all female, Division 1 soccer players. Females have different mental health help-seeking and help-giving behaviors compared to males who are less likely to disclose mental health issues and less likely to rely on social support for mental health help (Hagiwara et al., 2017). The tMHFA rubric has been used in previous studies to evaluate help-giving (Hart et al., 2018; Hart et al., 2016; Mason et al., 2015); however, as each category is graded on a 0 to 2 scale, it may not be sensitive enough to encompass the variety of behaviors that exist on the help-giving continuum.

Another limitation is that the tMHFA plan assumes that all mental health problems require formal intervention. Mental ill-health exists on a continuum (Keyes, 2002). On one side

of the continuum exists the individual who is thriving and has no presence of mental ill-health effecting any aspect, social, personal, work, of mental well-being and on the opposite side of the continuum is the person with a diagnosable mental health issue that severely effects every aspect of their life (Keyes, 2002). Many athletes may experience subclinical levels of mental illnesses. Some athletes may be struggling with transient emotional problems that mimic symptoms of mental ill health but may not require formal intervention. As a result, only performing certain steps of the first aid mental health action plan may be sufficient which could explain low help-giving scores. Additionally, not providing detailed enough responses will result in a lower score on the tMHFA rubric. It is possible that student-athletes provided higher quality help than what was inferred through their response as a result of not providing detailed answers. Also, only about 50% of athletes completed this question

Additionally, the help-seeking and help-giving intentions measures assessed an individual's likelihood of seeking help from a variety of athletic stakeholders. This may lead to a large range between sources athletes are most likely to seek help from or refer others to and those of which they are least likely. For example, athletes were more likely to seek help from teammates compared to coaches; the variation between scores for these two sources effects an individual's mean score. This may be a limitation when comparing the various people athletes seek help from

Applications

Findings of this study can be used to inform solutions to increase athlete mental well-being. Given that teammates are popular sources of mental health help, athletic departments should improve athlete-to-athlete help through efficacy enhancing strategies. For example, the tMFHA provides step by step instructions on how to provide effective mental health help to a

peer in distress. This action plan, in conjunction with lectures and workshops has been associated with increased help-giving intentions and self-efficacy (Hart et al., 2016). Mental health interventions that utilize, role-playing, interactive workshops, and group sessions fulfill mastery experiences by providing athletes a place to practice help-giving strategies which raises athlete self-efficacy. Additionally, by having student-athletes complete these types of workshops with their teams, other-efficacy beliefs may be increased. Furthermore, results of this study indicate that athletes are willing to seek and refer others to formal help. As a result, athletic departments must ensure that they have these resources in place. A 2013 study found that only 28.3% of Division I FBS schools had sport psychology providers, most (68.3%) only reported having one sports psychologist or mental skills professional on staff (Hayden et al., 2013). This study provides evidence that efficacy enhancing mental health programming may increase help-giving quality and intentions in athletes. However, for these programs to be effective athletic departments must ensure they have adequate resources in place when athletes do seek help.

Conclusion

Findings of the current study suggest that athletes' primary sources of help-giving are mental health professionals and teammates, and teammates provide moderate quality help to their fellow athletes during a mental health concern. Further, this study supports previous research that asserts the importance of self-efficacy in health behaviors relating to mental health; it also offers other-efficacy as an important predictor of mental health help-giving and help-seeking behaviors. According to this study, student-athletes are willing to seek and refer their peers to formal mental health help. However, it is the responsibility of athletic departments to ensure that they have these formal resources in place, given the prevalence of mental health issues within athletics. Athletic departments can better support help-giving by providing

programming and interventions that increase student-athlete's ability to notice signs and symptoms of mental health issues and facilitate specific conversations with their peers who struggle with mental health issues to provide higher quality help-giving.

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APPENDIX A

Self-Efficacy Instructions: Read each statement carefully and indicate your degree of agreement using the scale below. **I am confident that I can…**											
	Not at all confident					Moderately Confident					Completely Confident
find resources related to mental health problems.	0	1	2	3	4	5	6	7	8	9	10
find a professional who can help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
refer a teammate to a professional for help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help a teammate who has a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
find someone who can help a teammate with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help a teammate get treatment for a mental health problem	0	1	2	3	4	5	6	7	8	9	10
locate useful information about mental health problems	0	1	2	3	4	5	6	7	8	9	10
provide assistance to a teammate with a mental health problem	0	1	2	3	4	5	6	7	8	9	10

Other-Efficacy Instructions: Read each statement carefully and indicate your degree of agreement using the scale below. **I am confident that my teammates can…**											
	Not at all confident					Moderately Confident					Completely Confident
find resources related to mental health problems.	0	1	2	3	4	5	6	7	8	9	10
find a professional who can help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
refer me to a professional for help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help a teammate who has a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help me with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
find someone who can help me with a mental health problem	0	1	2	3	4	5	6	7	8	9	10
help me get treatment for a mental health problem	0	1	2	3	4	5	6	7	8	9	10
locate useful information about mental health problems	0	1	2	3	4	5	6	7	8	9	10
provide assistance to me if I have a mental health problem	0	1	2	3	4	5	6	7	8	9	10

RISE

Instructions: Read each statement carefully and indicate your degree of agreement using the scale below.

My teammates are confident that I can….

	Not at all confident					Moderately Confident					Completely Confident
find resources related to mental health problems.	0	1	2	3	4	5	6	7	8	9	10
find a professional who can help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
refer them to a professional for help with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help them with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
find someone who can help them with a mental health problem.	0	1	2	3	4	5	6	7	8	9	10
help them get treatment for a mental health problem	0	1	2	3	4	5	6	7	8	9	10
locate useful information about mental health problems	0	1	2	3	4	5	6	7	8	9	10
provide assistance to a teammate with a mental health problem	0	1	2	3	4	5	6	7	8	9	10

If YOU were having a personal or emotional problem, how likely is it that YOU would SEEK HELP from the following people?

	Extremely Unlikely		*Unlikely*		*Likely*		*Extremely Likely*
Teammate	1	2	3	4	5	6	7
Student-athlete from a different team	1	2	3	4	5	6	7
Athletic trainer	1	2	3	4	5	6	7
Head coach	1	2	3	4	5	6	7
Assistant coaches	1	2	3	4	5	6	7
Mental health professional (e.g., sport psychologist, counseling center)	1	2	3	4	5	6	7

If a TEAMMATE were having a mental health problem, how likely is it that you would RECOMMEND THEY SEEK HELP from these people?

	Extremely Unlikely		*Unlikely*		*Likely*		*Extremely Likely*
Teammate	1	2	3	4	5	6	7
Student-athlete from a different team	1	2	3	4	5	6	7
Athletic trainer	1	2	3	4	5	6	7
Head coach	1	2	3	4	5	6	7
Assistant coaches	1	2	3	4	5	6	7
Mental health professional (e.g., sport psychologist, counseling center)	1	2	3	4	5	6	7

Instructions: D*escribe a time a teammate came to you with a potential mental health issue. Provide a detailed explanation of what you did to help them with their problem*

Demographic Questionnaire

Instructions: Read each statement carefully answer to the best of your ability.

Birth Year: _____

Ethnicity:

_____ African American _____ Asian/Asian American

_____ Latino/a _____ White/European American

_____ Arab/Middle Eastern _____ Other: Please specify _____

Gender:

Male Female Prefer not to answer

School: _____

Eligibility year in current university: 1 2 3 4

Time with current team:

Months _____ years _____

Were you a starter in your most recent season (Yes, No, Injured)

APPENDIX B: teen Mental Health First Aid Action Plan Rubric

Action	**0 points**	**1 point**	**2 points**
Look for Warning Signs	• No warning signs mentioned	• General mention of monitoring the person, e.g. "keep an eye on them"	• Looks for any of the following signs: - that the person might harm themselves or others - that the person has lost purpose or direction - that the person is experiencing changes in thoughts, feelings or behaviour
Ask How They Are	• No mention of a conversation being initiated • Gives advice (unspecified) • Gives unsolicited advice or lectures the person	• Talks to the person (no other details mentioned)	• Has a conversation with the person specifically about their problem • Explicitly asks if the person is thinking about suicide, or harm to self or others
Listen Up	• No mention of listening • Gives advice (unspecified)	• Listen to the person (no other details mentioned)	• Listens to the person talk about their problem *and* specifies at least one of the following: - remaining calm - believing what the person is telling them - allowing them time to respond - not judging - listening for tone of voice - watching for body language - not pushing the person - reflecting back what the person has said - validating the persons feelings
Help Them Connect With an (adult)	• No mention of connecting with an (adult) **Staff Member**	• Mentions connecting with an unspecified person (e.g. "someone")	• Suggests that the person tells an (adult) **staff member** • Talks to an (adult) **staff member** about their concerns

Staff Member		• Discusses help-seeking options (**staff member** not specified)	• Suggests that person seek professional help • Discusses specific options for seeking appropriate (adult) **staff member** help

Your Friendship is Important	• No mention of on-going interaction or support
	• Gives help (unspecified)
	• Mentions using force to encourage social contact (e.g. "make them" attend social gatherings)
		• Supports, helps or offers to support or help the person (unspecified)
		• Be a friend (unspecified)
		• Mentions "being there"
		• Gives information (unspecified)
			• Mentions specific social, emotional or practical support, or any of the following examples:
			  • Stays in touch with the person
			  • Stays with the person if they are in a crisis
			  • Invites the person to social activities (with no mention of force)
			  • Offers for the person to contact them if needed
			  • Talks to the person on multiple occasions (not necessarily about their problems)
			  • Offers care or love
			  • Offers or provides practical help
			  • Praises or encourages the person
			• Gives helpful/appropriate information about the problem

If the response lists the action plan ("Look, ask, listen, help your friend"), give 1 point for each of the positive steps.

A Total MHFA Action Score is comprised of the sum of the first 5 items.

APPENDIX C: IRB APPROVAL MEMO

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** ·
rede.ecu.edu/umcirb/

Notification of Amendment Approval

From: Biomedical IRB
To: Kimberly Sanford
CC: Christine Habeeb
Date: 9/15/2021
Re: Ame2_UMCIRB 20-002366
UMCIRB 20-002366
Help-Giving and Help-Seeking Among Student-Athletes: Expectations, Efficacy and Quality

Your Amendment has been reviewed and approved using expedited review on 9/15/2021. It was the determination of the UMCIRB Chairperson (or designee) that this revision does not impact the overall risk/benefit ratio of the study and is appropriate for the population and procedures proposed.

Please note that any further changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must adhere to all reporting requirements for this study.

If applicable, approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Document	Description
Adding Natalie McBryde and Addison Salz to the study team.	

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.