Empowering Collegiate Athletic Staff to Prevent Intercollegiate Athlete Suicide

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Abstract: Suicide is the second leading cause of death for ages 18-24 (Curtin & Heron, 2019). Suicide is the fourth leading cause of death among college athletes (Rao et al., 2015). While not all intercollegiate athletes will be seen by mental health professionals, all intercollegiate athletes interact with their campus athletic staff: athletic trainers, coaches, etc. The purpose of this paper is twofold: to provide an overview of the risk factors and warning signs suicidal intercollegiate athletes may exhibit, and offer resources and best practices for athletic staff to be informed and proactive in preventing intercollegiate athlete suicide.

Keywords: suicide prevention, intercollegiate athletes, mental health

College Athletes, Mental Health, and Suicide

Before COVID-19, the NCAA was already concerned about the mental health of intercollegiate athletes (Mawdsley, 2021). Specifically, the NCAA reported that across divisions from 2010 to 2015, there was an increase in athletes who reported feelings of being overwhelmed and close to 25% of the respondents in the study reported that the mental demands of the sport were exhausting (NCAA, 2016). In a Fall 2020 online survey examining the impact of COVID on its athletes, "the rates of reported mental health concerns experienced within the last month were 1.5 to 2 times higher than have been historically reported by NCAA student-athletes in pre-pandemic studies" (NCAA Research, 2021, p.18). In addition, 29% of female respondents reported overwhelming anxiety, 16% reported feeling hopeless, and 9% reported feeling so depressed it was hard to function. The numbers are lower for male athletes: 11%, 10%, and 5% respectfully (NCAA Research, 2021).

Despite the mental health concerns for intercollegiate athletes pre, post, and during the COVID-19 pandemic, campuses may not be equipped to handle the mental health needs of their athletes (Mawdsley, 2021). In 2020, the *Journal of Higher Education Athletics and Innovation* published a research article highlighting the discrepancies between services available to student athletes and services desired by student athletes and athletic staff (Navarro et al., 2020). Navarro et al. (2020) provided several implications for supporting student athletes' mental health and wellbeing and urged athletic staff to "provide enhanced support services" (p. 100). The current article is meant to serve as a practical guide for college athletic staff to offer support and to encourage this population to be proactive in their student athletes' mental health. In particular, this article

emphasizes the importance of training non-mental health professionals who work directly with student athletes to recognize signs that an athlete may be struggling with suicidality.

In 2004, the Garrett Lee Smith Memorial Act (GLSMA) afforded institutes of higher education the opportunity to apply for grants to fund suicide prevention efforts on campus (Goldston et al., 2010). With an overall focus on community-based prevention, many grant recipients incorporated suicide awareness and anti-stigma campaigns, as well as campus-wide gatekeeper training programs (e.g., QPR, Kognito, ASIST, etc.). As a result of the grants, over 100,000 individuals received suicide prevention training (Goldston et al., 2010). While the GLSMA has certainly made an impact on suicide prevention at institutes of higher education, college student suicide and the complexity of the issue continue to be problematic.

Some campuses seem hesitant to intervene with suicidal students for fear of litigation and decision-makers can view college student mental health as solely an issue for campus mental health professionals (Appelbaum, 2006). However, like other campus-wide issues such as recruitment, retention, and multicultural competency, collaboration on student mental health is necessary (Reynolds, 2009). In order to assist in college student suicide prevention efforts, *all* campus personnel needs to be knowledgeable about suicide in order to assist in prevention efforts (Reynolds, 2009). For student affairs (SA) professionals, advising and supporting is a professional competency, and includes being able to effectively manage crisis situations (ACPA-College Student Educator International/NASPA, 2015).

While the death rate by suicide of NCAA intercollegiate athletes is lower than the suicide rate for non-athletes (Rao et al., 2015), suicide is still a concern for college athletes. NCAA athlete suicides have garnered national attention, including ESPN's stories on Kyle Ambrogi, Kosta Karageorge, and Madison Holleran (Drehs, n.d.; Fagan, 2015; Ward, 2014). More recently, five NCAA athlete suicides (Katie Meyer, Jayden Hill, Robert Martin, Sarah Shulze, and Lauren Bernett) have sparked calls for more mental health support from the NCAA (Hensley-Clancy, 2022). Rao et al. (2015) reported that suicide accounted for roughly seven percent of NCAA deaths over a nine-year span. Further findings indicate that male intercollegiate athletes have a higher rate of suicide death than their female counterparts, and that male intercollegiate football players had the highest rates of suicide among collegiate athletes (Rao et al., 2015). Given that intercollegiate athletes are less likely to seek help from mental health professionals when they may be experiencing depression or other mental health concerns, this is a group at risk for suicide and suicidality (Etzel et al., 2006). Previous scholars have stressed the importance of college campus athletics' need to be proactive in identifying and intervening with potentially suicidal students (Anchuri et al., 2020; Etzel et al., 2006).

Despite national news stories and standards for student affairs professionals, many may not have received sufficient training in their graduate preparation programs to handle suicidal students, potentially suicidal students, or other student mental health issues (Schmid & Wagstaff, 2019). This paper aims to share practical information with those who work directly with college athletes on suicide prevention, including models for comprehensive suicide prevention by the Jed Foundation, a non-profit adolescent and young adult suicide prevention group, and the Suicide Prevention Resource Center (SPRC).

Risk Factors

Comprehensive suicide prevention efforts involve training both mental health and nonmental health professionals to identify students at risk (SPRC, n.d). One aspect of identifying possibly suicidal individuals means knowing *risk factors* and *warning signs*. Risk factors tend to elevate long-term concern, while warning signs are generally indicators that an action or event is imminent or immediate (Rudd et al., 2006). Common suicidal risk factors that may be known or observed in college students include, but are not limited to: access to firearms (Knopov et al., 2019), mental health condition (especially a mood or eating disorder, schizophrenia, and borderline personality disorder; Joiner et al., 2009), a previous suicide attempt (Jamison & Bol, 2016), exposure to suicide death (Maple et al., 2017), substance use (Steele et al., 2018), chronic pain (Wilson et al., 2013), and social isolation (Joiner, 2005). Both the SPRC and the American Foundation for Suicide Prevention (2019) indicate that another risk factor can be long-term stress associated with bullying or discrimination, harassment, and/or family disconnection.

For intercollegiate athletes, some of the above-mentioned risk factors are especially prominent. Research indicates that the four most common mental health issues and suicide-associated comorbidities for student athletes include: depression, anxiety, eating disorders, and substance use (Thompson & Sherman, 2007). Next, the authors review some of the prevalent literature on these four common issues for college athletes in hopes of educating readers and those in a position to recognize when an athlete may be exhibiting mental health issues that are also risk factors for suicide.

Depression and Anxiety

In the first paragraph of the paper, statistics regarding anxiety and feelings of depression were shared based on NCAA research conducted in Fall 2020 about the impact of COVID-19 on college athletes. Similarly, research on college athlete anxiety and depression pre-pandemic reports higher rates for female athletes than male athletes (Kaier et al., 2015). That said, one study found that almost one-third (31%) of male athletes and almost half (48%) of female athletes reported anxiety symptoms, and 21% of male athletes and 28% of female athletes reported depression symptoms (Davorean & Hwang, 2014). Of note regarding depression in intercollegiate athletes is that individual sport athletes may have higher rates of depression than team sport athletes (Nixdorf et al., 2016).

Disordered Eating

While Davorean and Hwang (2014) found that depression and anxiety experienced by collegiate athletes is lower than that of non-athletes, data on disordered eating for intercollegiate athletes dating back to the early 1990s indicate that athletes are more at risk for disordered eating than their non-athlete peers (Etzel et al., 2006). Female athletes in particular are at a higher risk for disordered eating (Holm-Denoma et al., 2009; Pritchard et al., 2007). Similarly, distance collegiate runners (specifically female runners) have been found to be at a statistically higher risk for disordered eating than other intercollegiate athletes (Krebs et al., 2019). Knowledge of the link between disordered eating and suicide risk (as outlined above) gives more prominence to the existing literature on intercollegiate athlete disordered eating.

Substance Use

In terms of substance use, some research indicates that NCAA athletes consume alcohol at about the same rate as non-athletes; but other research indicates that National Association of Intercollegiate Athletics (NAIA) athletes consume alcohol at rates lower than NCAA athletes and non-athlete students (Moore & Abbe, 2021). It is possible though, that the lower rates of alcohol use by NAIA athletes are not necessarily due to athlete or non-athlete status, but perhaps has more to do with the fact that many of the institutions within the NAIA have limited access to alcohol either due to religious affiliation and or lack of Greek life on campus (Moore & Abbe, 2021). Moore and Abbe (2021) also reported that narcotic use for pain management was higher in both NCAA and NAIA athletes than non-athletes. While in part, this makes sense since intercollegiate athletes often deal with injuries, it is still concerning given the addictive nature of opioids (Moore & Abbe, 2021).

An older study that made direct comparisons between intercollegiate athletes and nonathletes found, however, that male athletes reported a much higher frequency of binge drinking and use of performance-enhancing drugs than their non-athlete counterparts (Yusko et al., 2008). Additionally, female athletes reported a lower frequency of alcohol use than non-athlete females, but a higher rate of performance-enhancing drugs (Yusko et al., 2008). The study found that marijuana use among both male and female athletes was lower than the non-athlete student population (Yusko et al., 2008). An interesting finding from Yusko et al.'s (2008) study is that binge drinking in particular is higher for male athletes than non-athletes, which is similar to Ryan et al.'s (2018) findings that college athletes are more likely to binge drink than non-studentathletes.

There is conflicting data on whether or not student athletes use alcohol and/or other substances at differing rates than their non-athlete peers. Despite this, the NCAA (2018) reported that over 75% of the athletes in their study used alcohol and almost 25% used marijuana. Based on the connection between substance use and suicide, NCAA (2018) data indicates that athletes on our campuses are at risk.

Other Risk Factors

Contrary to the notion that intercollegiate_athletes are protected against the risk factor of social isolation due to team belonging, current research indicates increased feelings of social isolation for all college students during the COVID-19 pandemic. In a Fall 2020 data report from The Healthy Minds Network, 26% of college student participants revealed that they often feel isolated from others. Research conducted on student athletes prior to COVID-19 reports that students who identify strongly with their athletic identity and student athletes of color may struggle with feeling a sense of belonging on campus (Gayles et al., 2018). Watt and Moore (2001) explained that intercollegiate athletes are less likely to engage in class discussions, therefore "there might be few opportunities to establish meaningful relationships with students who are not athletes" (p.14). Intercollegiate athletes who have experienced injuries may also be more likely to experience feelings of social isolation. In one study examining the impact of concussions on mental health, athletes prevented from competing due to injury reported a sense of disconnectedness from the team, which contributed to feelings of grief and social isolation (Cassilo & Sanderson,

2019). Furthermore, one study found that for intercollegiate athletes, challenges with social relationships had a stronger correlation with a suicide attempt than non-athletes (Anchuri et al., 2020).

Other suicide risk factors prevalent in intercollegiate athletes include chronic pain and long-term stress. Research on athletes' *health-related quality of life* is readily accessible (Cowee & Simon, 2019). One study cites that almost 50% of NCAA Division I athletes deal with chronic injuries (Simon & Docherty, 2014). While not every student athlete experiences chronic pain, injuries are problematic for student athletes and may impact their quality of life (Simon & Docherty, 2021).

When comparing suicide rates and biological sex, males overall are more likely to die by suicide than females (Overholser et al., 2012). For college athletes, it is no different. Not only are male athletes more likely to die by suicide than their female athlete peers, but NCAA football has the highest reported incidents of suicide death (Rao et al., 2015). When it comes to intercollegiate athletes, this is of particular concern because male athletes seek help at lower rates compared to female athletes (Moreland et al., 2018).

Warning Signs

While knowledge of risk factors can help collegiate athletic staff identify intercollegiate athletes who may be at risk for suicide, knowing *warning signs*, i.e., actions and behaviors suggestive of an immediate or imminent suicide attempt, is equally important in suicide prevention (Rudd et al., 2006). Suicidal warning signs include but are not limited to: discussing (orally or in writing) wanting to die, acquiring means to die by suicide, conducting online searches for how to die, expressing being a burden, making statements that others would be better off without the student around, exhibiting reckless behavior, having disturbed sleeping patterns, and/or giving away possessions (American Foundation for Suicide Prevention, 2019).

The American Association of Suicidology (AAS) devised a mnemonic device to help the public recall the warning signs for suicide: IS PATH WARM (Joiner et al., 2009). Each letter/warning sign is addressed and described in the table below. As stated above, a comprehensive model of suicide prevention involves the ability to identify students at risk. Awareness of these signs has proven to be effective in the prevention of suicide (Gould et al., 2003). In addition, suicide prevention training (or gatekeeper training) for non-mental health professionals can increase one's self-efficacy in identifying and referring students at risk (Sylvara & Mandracchia, 2019).

Table 1

I-S P-A-T-H W-A-R-M? (American Association of Suicidology)	
Ideation	The student may talk about or romanticize death.
Substance use	Specifically refers to an <i>increase</i> in substance use. While it is commonly viewed as "normal" for college students to consume alcohol, the risk of injuries to students is heightened while intoxicated (Hultgren et al., 2018).
Purposelessness	When it comes to the idea of purpose in terms of a warning side for suicide the spirit is well beyond "why am I an X major- what purpose does that serve" and extends into "What is the purpose of life? Why am I alive? What reasons do I have for living?"
Anxiety or Agitation	An anxiety disorder diagnosis or an expression of anxiety over an upcoming exam or game is not reason alone to suspect that someone is suicidal. Rather, the anxiety and agitation here is more pronounced. "Agitation, as it relates to acute suicide risk, refers to both increased motor and mental arousal and is characterized by excessive and/or repetitive behaviors (e.g., fidgeting, hand-wringing, pacing, etc.) coupled with expressions of mental anguish, tension, or emotional turmoil" (Ribeiro et al., 2013, p. 212). Studies examining both completed suicides and suicide attempts strongly support that extreme agitation and anxiety are a factor in suicidal behavior (Ribeiro et al., 2013).
Trapped	The student expresses feeling stuck. They may refer to "having no way out."
Hopelessness	Student may express no hope for the future, for themselves, or for their lives.
Withdrawal	Refers to <i>social</i> withdrawal. The student may stop attending practices, on-campus events, or disappear from social media. The student's friends/teammates may acknowledge not seeing them as much. The student may become less talkative or disconnected from loved ones. Such social withdrawal may be indicative of immediate risk (Ribeiro et al., 2013).
Anger	Student openly expresses extreme anger, irritability, and/or hostility in an uncontrolled way. Studies show that people with depression also show levels of anger, irritability, and hostility (Judd et al., 2013).
Recklessness	Potentially suicidal students, especially males, often engage in very reckless activities (DeLeo et al., 2005). Perhaps a student's behavior regarding substance use, sexual activity, or finances is alarming and can be considered reckless.
Mood change	Refers to dramatic mood changes. A student who is typically flat and monotone may suddenly become very vocal and animated, or vice-versa. Observation of extreme mood changes or shifts are cause for concern and further action (AFSP, 2019).

A Mnemonic Device for Identifying Students at Risk for Suicide

While IS PATH WARM warning signs are all important, intercollegiate athletes are most likely to demonstrate the following: substance use, *a*nxiety/agitation, feeling *t*rapped, questioning their *p*urpose, withdrawing from the team, and *a*nger. Division III NCAA college athletes reported more poly-substance (alcohol, tobacco, marijuana, and prescription drug) use than other divisions, but across all NCAA divisions, alcohol use is consistently reported (Orsini et al., 2018). Particularly, paying attention to intercollegiate athlete anxiety levels could help "flag" depression

and or suicidality (Tran, 2020). Furthermore, one study of attempted suicide among athletes identified serious injuries, a decline in athletic skills, and lower levels of competence in their sport as factors contributing to the suicide attempt (Smith & Milliner, 1994). Another researcher specifically talked about how injury for athletes can "unmask" mental health conditions, including suicidality (Putukian, 2016). As such, closely monitoring intercollegiate athletes with serious injuries could aid in suicide prevention.

Social Skills

The SPRC (n.d.) model of comprehensive suicide prevention and the Jed Foundation model (2016), borrowed from a non-profit organization that aims to prevent youth and young-adult suicide, both emphasize the importance of *social connectedness* in suicide prevention. Knowing that social isolation is a *risk factor* for suicide and that social withdrawal is a *warning sign* of suicide increases opportunities to connect socially, which could mitigate college athlete suicide risk. While some may say that college athletes are inherently socially connected, studies show that intercollegiate athletes often struggle with feelings of social isolation from both athlete and non-athlete peers (Anchuri et al., 2020; Cassilo & Sanderson, 2019; Gayles et al., 2018; Watt & Moore, 2001). Cassilo and Sanderson (2019) recommend that those who work with athletes should devise activities to enhance feelings of togetherness.

It is not only the job of the college athletic staff on campus to create a sense of connection for the college athletes; *all* student affairs practitioners have opportunities to foster a sense of campus community. Knowing student names and following up with students via email may seem small, yet it could make a large impact. Ribeiro et al. (2013) concluded, "even small doses of social connection have been found to be a strong medicine for those at risk for suicide" (p. 214).

One intercollegiate athlete created a safe space for her teammates to talk to her by placing a sticker on her water bottle that read, "Thinking of suicide? You can talk to me" (Gross et al., 2020). At the time, the athlete was required – for another role on campus – to attend suicide awareness training, and the stickers were distributed to attendees with the intention of them being displayed. This athlete's sticker was prominently displayed on her water bottle, which many teammates saw. Subsequently, the sticker's message encouraged a first-year athlete struggling with suicidal thoughts to reach out for help (Gross et al., 2020). Seemingly small gestures like this sticker can help send the message that college athletes are part of a community that cares.

Similarly, one student at the Massachusetts Institute of Technology (MIT) created a very simple yet lasting message on her campus: "Tell me about your day (TMAYD)." Thanks to her efforts, and in collaboration with student life, over 2,000 wristbands were distributed to students with the TMAYD abbreviation. This simple, visible message of support changed the culture on a campus that had experienced completed student suicides (Morell, 2015). The innovation and passion behind the initiative won national attention and is another example of how campus-wide efforts can give students a sense of purpose and belonging.

Stigma and Common Misconceptions

Another step that athletic staff can take to improve attitudes towards mental health concerns

is to encourage intercollegiate athletes to utilize mental health resources (Rao & Hong, 2016). All professionals who work with students have the responsibility to create and foster a sense of community. Around the topic of mental health, suicide prevention efforts can both promote help-seeking behaviors and reduce stigma about mental health. (Reynolds, 2009). Coaches, athletic trainers, and other athletic staff are in the position to make referrals (Moreland et al., 2018) and follow-up conversations should take place using non-stigmatizing language. Additionally, athletic staff should encourage intercollegiate athletes to seek help for the purpose of health and wellbeing, not just for the improvement of athletic performance (Moreland et al., 2018). Research shows that student affairs practitioners who both know campus resources *and* encourage students to effectively utilize such resources can assist in the overall improvement of campus mental health (Eisenberg et al., 2018).

Changing the language used when talking about mental health and suicide helps to reduce the stigma and increase effective help-seeking behaviors (Clement et al., 2014). Within the field of suicidology, one does not refer to *successful* or *unsuccessful suicide attempts*. Rather, there are individuals who attempt suicide and survive (suicide-attempt survivors), and those who attempt suicide and a fatality occurs. Additionally, the field of suicidology and the mental health field have been advocating to change the term *committed suicide* to *died by suicide*. The idea behind the movement to change the terminology is that committed suicide implies a sin, a crime, etc., and does not speak to the complex nature of the issue of suicide (Nielsen et al., 2016).

Asking Students Directly About Suicidal Thoughts

It is also important to address the common misconception that talking about suicide in general or directly asking an individual if they are feeling suicidal will encourage someone to act on suicidal thoughts. Research indicates that talking about suicide does *not* plant the idea of suicide. Conversely, if a college athlete is displaying suicide warning signs, discussing the topic of suicide with a trusted adult in an open and honest way can have beneficial outcomes (Dazzi et al., 2014; Miller, 2013). As such, collegiate athletics staff should know how to appropriately respond and refer to a mental health professional if a student discloses suicidal desires or plans.

Thus, another component of comprehensive suicide prevention involves having a plan to respond to crises. In 2003, there was "limited information available on the prevalence of formal policies regarding suicidal students on college and university campuses" (Francis, 2003, p. 114). In light of tragedies and lawsuits surrounding college student suicides, more and more policies are developing for colleges and universities around the issue of suicide.

Athletic staff are encouraged to have a mental health emergency plan (McCarthy, 2019; Rao et al., 2015). Specifics of a plan should include how to appropriately make referrals for mental health concerns of intercollegiate athletes in both urgent and not urgent situations. It is important for athletics staff to be trained on identifying risk factors and warning signs, and how to adequately refer students to trained mental health professionals (McCarthy, 2019). While in a position to ask students directly about suicidal desires or plans, it is beyond the scope of non-mental health athletic staff to diagnose or treat mental health issues.

Conclusion

Current research suggests that mental health services available to college athletes is lacking (Navarro et al., 2020). In addition to the risk of social isolation due to COVID-19, college athletes are at an elevated risk for several suicide-associated comorbidities (Thompson & Sherman, 2007). The purpose of this article is to empower collegiate athletics staff to be proactive in college athlete suicide prevention on campus. By raising awareness of risk factors, warning signs, and ways to promote social connectedness and belonging on campus, athletic staff can be mental health advocates. College student suicide prevention is not only the responsibility of campus mental health professionals. It is also incumbent upon athletic stakeholders to equip collegiate athletic staff with the tools to recognize and refer an athlete.

It is the authors' hope that future articles will address topics such as applicable interventions that athletic staff can utilize when an athlete appears suicidal, and appropriate steps to take after a campus suicide has occurred. Other forward steps involve: measuring collegiate athletic staff knowledge about suicide; expanding competencies within the field to include specifics on suicide prevention, intervention, and postvention; requiring campuses to train staff in suicide prevention; and collaborating on mental health programming across campus by involving staff, faculty, and students. Eisenberg and colleagues (2018) have made the case that investing in college student mental health resources will overall help the economic standing of the institution. It would seem that training student affairs professionals in the area of suicide prevention could be one part of that investment.

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