

Key Findings from the 2023 Missouri Assessment of College Health Behaviors for Athletes

Partners in Prevention (PIP) is Missouri's higher education substance misuse consortium dedicated to creating healthy and safe college campuses. The coalition is comprised of 26 public and private colleges and universities in the state. The campuses in the coalition work to prevent high-risk behaviors by implementing evidence-based strategies including education, social norming campaigns, policy review and enforcement, and more. To measure progress and obtain data needed for the implementation of programs, PIP created the Missouri Assessment of College Health Behaviors (MACHB) Survey. The MACHB is an annual, online survey that has been implemented each spring since 2007. The survey assesses the roles that alcohol, cannabis, other drugs (illegal and prescription), tobacco/nicotine, interpersonal violence, and mental health concerns have on student health and well-being.

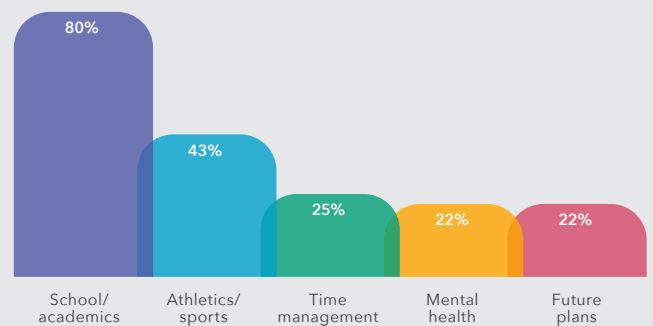
In 2022, PIP created a modified version of the MACHB specifically for athletes (MACHB-A). In addition to assessing substance use and mental health, the MACHB-A also assesses sport specific factors such as athletic identity, injury, sport motivation, body image, and transitioning into and out of collegiate sport. The following are key findings from the 2023 MACHB-A survey (N=729) among 11 PIP member institutions as of Fall 2023:

Mental Health

Student-athletes are a unique subpopulation given the academic and athletic demands they face daily. Majority (44%) of student-athletes report that they are stressed but managing—with their top five sources of stress being academics, sport, time management, mental health, and future plans (Chart 1).

The top five concerns (i.e., depression, eating disorders/disordered eating, chronic sleep issues, anxiety, and panic attacks) experienced in the past 12 months by Missouri student-athletes in the 2023

Chart 1: Top Sources of Stress



MACHB-A are shown in chart 2. These are the same top five concerns that student-athletes endorsed experiencing in 2022.

Additionally, research has shown that athletes who experience an injury are more likely to exhibit mental health concerns such as anxiety⁴ and depression³ and disordered eating/eating disordered behavior.¹ Chart 3 supports previous research when comparing these mental health experiences in student-athletes who experienced injury in the past year vs those who did not experience injury in the past year.

Chart 2: Top Concerns Experienced in the Past Year

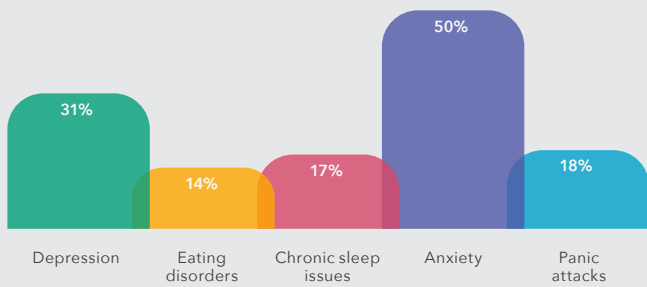
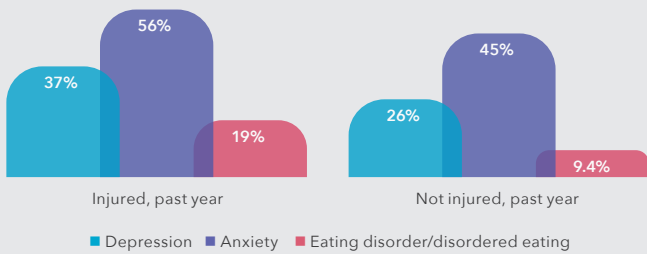


Chart 3: Mental Health Concerns in Injured vs. Non-Injured Athletes



Athletic Identity

Another sport specific factor that is impacted by injury is athletic identity, which is the degree to which an individual identifies as an athlete.² 95% of Missouri student-athletes agree that they identify as an athlete (Chart 4*). Among those who identify as an athlete and experienced injury in the past 12 months, 69% experienced at least one mental health concern and 20% experienced suicidal thoughts in the past year. Among those who identify as an athlete, but did not experience injury in the past 12 months, 55% experienced at least one mental health concern and 9.4% experience suicidal thoughts in the past year

Chart 4: Identify as an Athlete

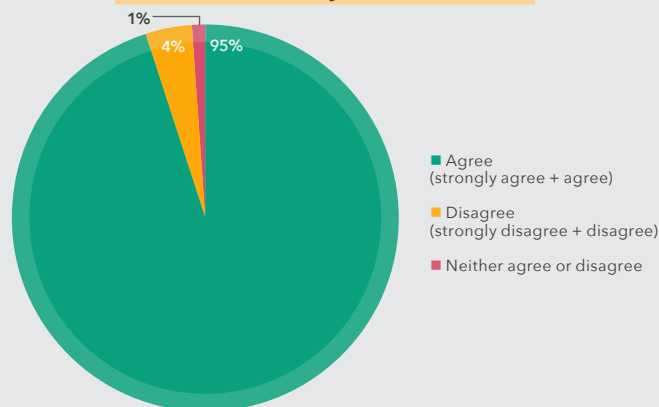
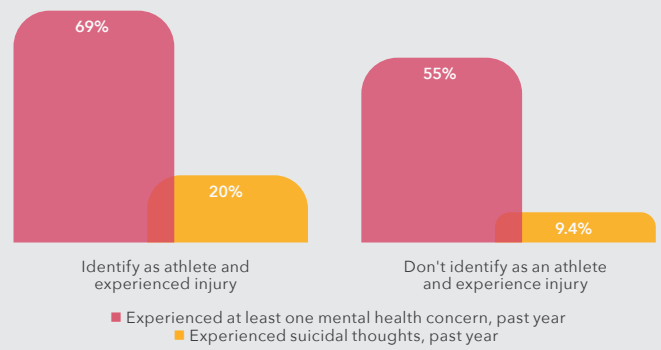


Chart 5: Mental Health and Suicidal Thoughts - High Athletic Identity and Injury in Past year

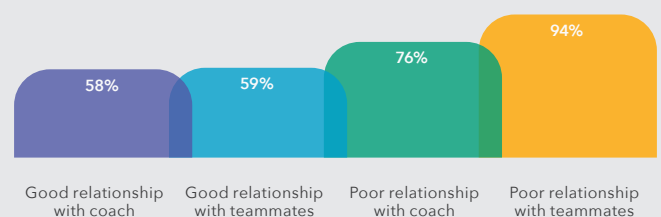


(Chart 5). Thus, the experience of injury for an athlete with a strong athletic identity can be devastating when they are unable to do something central to their identity.

Relationships within Athletic Environments

The MACHB-A assessed coach-athlete and athlete-athlete relationships. When examining relationships and mental health experiences, among student-athletes who endorsed having a good relationship with coaching staff, 58% reported experiencing at least one mental health concern; whereas those who endorsed not having a good relationship with their coaching staff, 76% reported experiencing at least one mental health concern. Among student-athletes who endorsed having a good relationship with teammates, 59% reported experiencing at least one mental health concern; whereas those who endorsed not having a good relationship with their teammates, 94% reported experiencing at least one mental health concern (Chart 6). Furthermore, fostering relationships, community connectedness, and sense of belonging may serve as a protective factor for health and well-being for concerns related to high athletic identity as well as overall health and well-being among student-athletes.

Chart 6: Mental Health Experiences and Athletic Relationships



Transitioning Out of Collegiate Sport

Transition out of collegiate sport can be challenging for student-athletes. Such transitions include but are not limited to graduating, experiencing a career ending injury, or retiring due to mental and/or physical health. Among Missouri student-athletes, 42% feel unprepared to transition out of college sport (Chart 7*). When thinking about life after collegiate sport, 38% of student-athletes are concerned with their body changing, 31% are concerned with how to fill their time, and 47% are concerned about losing connection with their teammates (Chart 8). Connection and team dynamics are an integral part to the student-athlete experience. Additionally, student-athletes might be used to having a packed schedule with everything planned out for them—it's either school or sport. And due to a full schedule, this may not leave room to explore their identity or interests outside of sport (as much as they might like/need for their well-being). And lastly, student-athletes are used to rigorous training schedules that may influence eating habits and/or weight or shape. So, when that rigorous training stops due to a transition (e.g., injury, graduating), it can

Chart 7: Prepared to Transition Out of Collegiate Sport

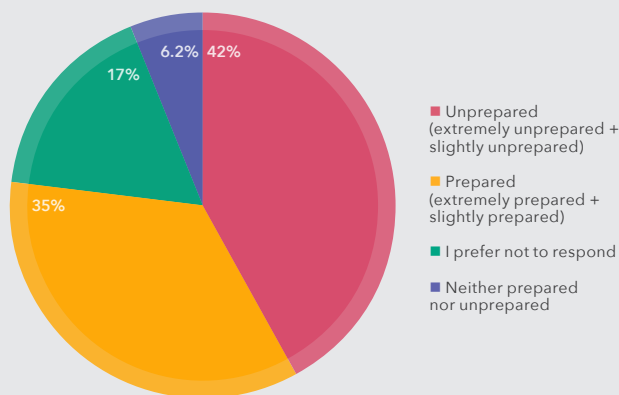


Chart 8: Concerns Around Transitioning Out of Collegiate Sport

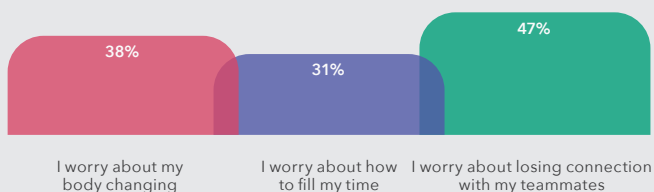
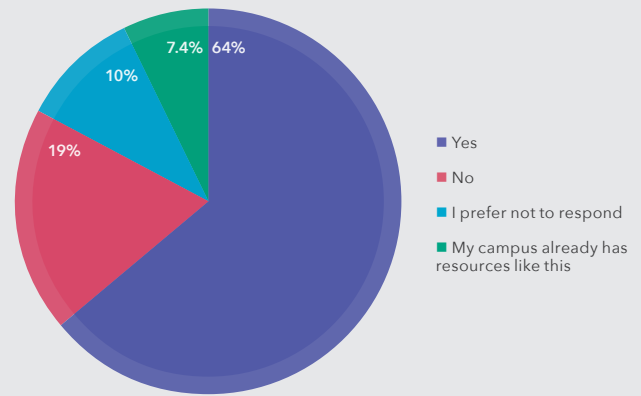


Chart 9: Benefit from Resources Aimed at Transitions and/or Expanding Outside Athletic Identity



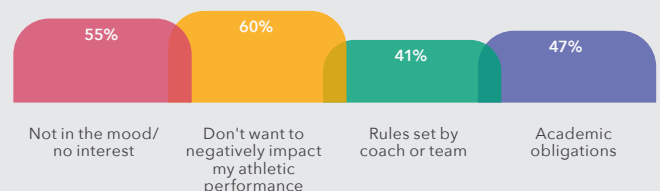
be difficult to navigate food, movement, and body image. Therefore, resources aimed at transitioning out of college sport and helping to expand one's athletic identity are crucial for student-athletes, and 64% of Missouri student-athletes would benefit from such resources (Chart 9).

Alcohol

Fifty-seven percent (57%) of Missouri student-athletes reported that they drank alcohol in the past year, which is a 12% decrease from 2022. Reasons for drinking less alcohol/not consuming alcohol can be seen in chart 10—with the top four reasons being “they don't want it to impact their athletic performance (60%), having no interest (55%) academic obligations (47%), and rules set by coach or team (41%). Other reasons endorsed for not consuming alcohol included, but were not limited to, religious/moral reasons, being a designated driver, high cost of alcohol.

However, 29% of student-athletes endorsed that they would drink more than they do if they didn't play their sport. In some way, playing sport might be a protective

Chart 10: Top Reasons for Drinking Less/Not Drinking



factor for alcohol related behavior, but it's important to understand the attitudes around alcohol that might surface if sport is not there or taken away (e.g., career ending injury). This alcohol related attitude is an example of the potential benefit to helping students expand beyond their athletic identity and/or how to fill their time if/when they are no longer engaging in sport.

Summary

Being a student-athlete is a unique experience given the dynamic of academic and athletic factors, and challenges they face on and off the field. While these factors can lead to positive outcomes, they can also have devastating consequences on overall well-being if not appropriately addressed. Resources aimed at traditional students might not be suitable for student-athletes. Therefore, to improve the health and well-being of student-athletes, different approaches and prevention methods may be required. Partners in Prevention continues to monitor the health behaviors of college students, including student-athletes. Substance use, mental health, and sport specific factors (e.g., athletic identity, injury, athletic environments) are intersectional issues that impact a student-athlete's ability to succeed and thrive in and out of their sport while attending institutions of higher education. Comprehensive and evidence-informed prevention and health promotion practices are an investment in the lives of student-athletes and the overall campus environment. For more information about Partners in Prevention and to explore our research, visit mopip.org.

Resources

SAMHSA

Information about co-occurring disorders in mental health [samhsa.gov](https://www.samhsa.gov)

Partners in Prevention

There are many resources available in the "Prevention Toolbox". The mental health topic discusses some best practices

mopip.org/topics/mentalhealth.html

National Institute of Mental Health

[nimh.nih.gov/health](https://www.nimh.nih.gov/health)

Athlete Specific Mental Health Resources

- **Mind Body Endurance:** eating disorder, disordered eating, body image support for athletes mindbodyendurance.com
- **Sidelined USA:** support network and mentorship for athletes who have been sidelined from sport due to injury/mental health and struggling with identity, transitions, mental health sidelinedusa.org
- **Hidden Opponent:** mental health awareness, support, and education for student-athletes thehiddenopponent.org
- **Morgan's Message:** mental health and suicide awareness support and education for athletes morgansmessage.org

Contact Partners in Prevention at (573) 884-7551.

Report prepared by Meg Mottola, Research Coordinator. Data prepared by Meg Mottola, Research Coordinator. Published February 2024.

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1. Arthur-Cameselle, J., Sossin, K., & Quatromoni, P. (2017). A qualitative analysis of factors related to eating disorder onset in female collegiate athletes and non-athletes. *Eating Disorders*, 25(3), 199-215. <https://doi.org/10.1080/10640266.2016.1258940>
2. Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology*, 24(2), 237-254.
3. Cox, E. C., Ross-Stewart, L, & Foltz, D. B. (2017). Investigating the prevalence and risk factors of depression symptoms among NCAA Division I collegiate athletes. *Journal of Sports Science*, 5(1). <https://doi.org/10.17265/2332-7839/2017.01.002>
4. Leddy, M. H., Lambert, M. J., & Ogles, B. M. (1994). Psychological consequences of athletic injury among high-level competitors. *Research Quarterly for Exercise and Sport*, 65(4), 347-354. <https://doi.org/10.1080/02701367.1994.10607639>