

# Health Behaviors and Substance Use Among Student-Athletes: Insights 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.

The Missouri Assessment of College Health Behaviors for Athletes (MACHB-A) offers valuable insights into the health behaviors and challenges faced by student-athletes. This survey, a modified version of the original MACHB created in 2022, focuses specifically on athletes and examines how factors such as injuries, transitions out of sports, and motivation influence their well-being. Understanding these dynamics is crucial for developing targeted support strategies for this unique group.

## Literature Review

Research into student-athlete health behaviors has revealed several patterns:

**Alcohol Use:** Athletes often engage in alcohol consumption due to social pressures and desire to conform to peer expectations.<sup>5,6</sup>

**Injury Impact:** Injuries are a major risk factor for disordered eating and substance abuse among athletes.<sup>9,10</sup>

**Motivation:** Athletes driven by external rewards, such as scholarships or fame, are at a higher risk for developing eating disorders compared to those motivated by personal satisfaction.<sup>7</sup>

**Transition Challenges:** The process of leaving competitive sports can exacerbate issues such as poor body image and disordered eating.<sup>1,3</sup>

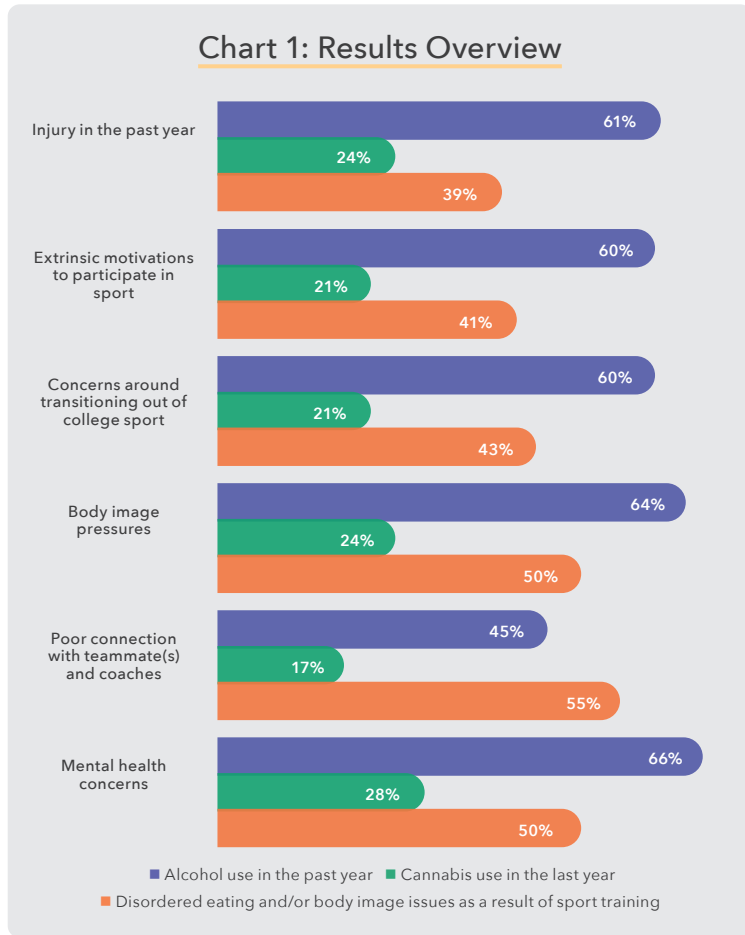
**Retirement Concerns:** Retiring from sports is frequently associated with increased substance use and mental health challenges.<sup>3,4</sup>

## Study Design

The 2023 MACHB-A survey collected data from 729 student-athletes across Missouri. This study aimed to explore how motivation, concerns about transitioning out of sports, mental health, and relationships with coaches and teammates influence health behaviors. Health behaviors included in this study include alcohol use, cannabis use and disordered eating and/or body

image concerns experienced because of training. The survey assessed intrinsic and extrinsic motivations to participate in sport, transition-related concerns (including body image, time management, and connection with teammates), and the quality of interpersonal relationships within the sports environment.

injured can increase the risk of disordered eating due to concerns around body changes happening when not engaged in one's typical training schedule.<sup>1,9</sup> This could be one reason why Missouri student-athletes with an injury history showed higher rates of disordered eating and/or body image concerns associated with training.



As seen in Chart 1 above, the survey identified several findings related to sport specific factors and risky health behaviors.

## Injury

Athletes with a history of injury in the past year showed significantly higher rates of alcohol and cannabis use than those who did not experience injury in the past year. This finding is consistent with prior research looking at maladaptive coping for injured athletes.<sup>2,10</sup> Additionally, athletes who experienced injury in the past year were also more likely to report engaging in disordered eating and/or experience body image issues as a result of training for their sport. Disordered eating and injury is twofold – on one hand, disordered eating poses an increased risk of injury; however, being

## Motivations to Participate in Sport

Missouri-student athletes who have been injured in the past year, also have higher rates of alcohol and cannabis use, with the exception of those who report a “poor relationship with coaching staff or teammates.” Endorsing slightly higher rates of alcohol and cannabis use are those who reported good relationships with coaching staff and/or teammates. To examine this relationship, further research is needed. One theory could involve peer pressures from teammates to engage in substance use behaviors or to celebrate (winning or good performance) through substance use.<sup>3, 5</sup> Another reason could be the extent to which team dynamics and relationships are formed by coaches, who set rules, expectations, and consequences around substance use.<sup>11</sup>

## Transitioning Out of College Sport

Collegiate athletes experiencing concerns about transitioning out of their sport, such as the end of their athletic careers, report heightened pressure to alter their bodies.<sup>7</sup> This group also exhibits elevated rates of disordered eating and body image issues, as well as higher rates of alcohol and cannabis use.<sup>1</sup> One possible theory is that these athletes worry that a less intensive training regimen and lifestyle may lead to poorer physical health.<sup>3</sup>

## Interpersonal Relationships

Athletes who reported positive relationships with their coaches and teammates exhibited slightly higher rates of substance use than those who reported poor relationships with their coaches and teammates.<sup>6</sup> This finding is significant and suggests that even supportive team environments might contribute to increased substance use, possibly due to peer influences or celebratory behaviors.<sup>11</sup>

## Mental Health

Student-athletes who exhibit greater mental health

concerns report significantly higher rates of alcohol consumption. Additionally, moderate mental health concerns are associated with increased instances of disordered eating and body image issues related to sport training.<sup>4, 10</sup> Furthermore, student-athletes with mental health concerns demonstrate higher levels of cannabis use compared to other subpopulations.

## Discussion

The findings from the MACHB-A survey underscore the complex interplay between motivation, injury, and transition issues in shaping the health behaviors of student-athletes. Athletes dealing with injuries, external motivations, mental health concerns face significant challenges, including higher rates of disordered eating as a result of training, negative body image, and substance abuse (i.e., alcohol and cannabis use). The association between positive team relationships and increased substance use highlights the need for further research to understand the underlying mechanisms, such as peer pressure or team dynamics.

These results emphasize the necessity for targeted support programs that address the specific needs of student-athletes. Effective interventions should focus on providing comprehensive mental health support, managing the impact of injuries, and facilitating smoother transitions out of competitive sports. By addressing these areas, it is possible to improve overall well-being and reduce harmful behaviors among student-athletes.

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

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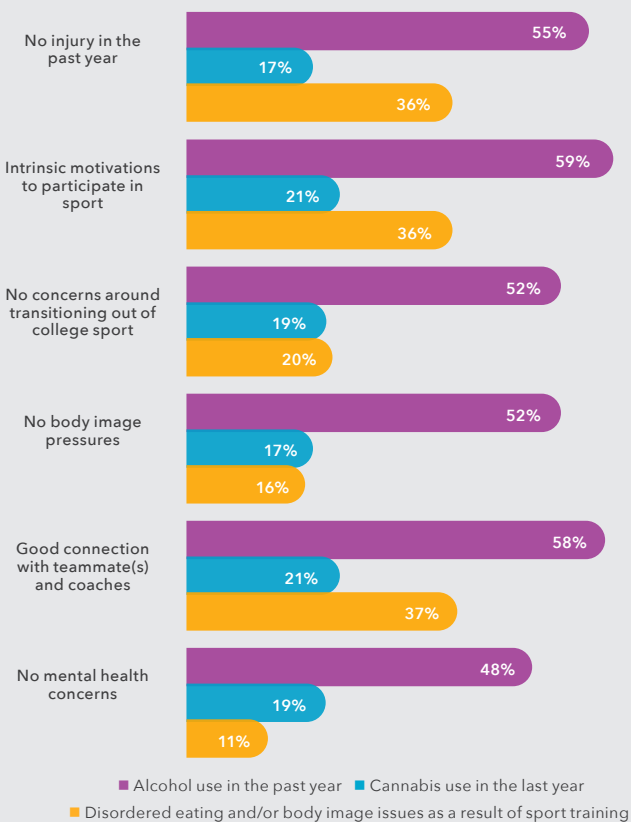
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Chart 2: Discussion Overview



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