

The Relationship Between Disordered Eating and Substance Use Among Missouri College Students

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 public and private colleges and universities in the state. The campuses in PIP 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. This brief will include data from the 2025 MACHB survey and focus on the intersection of disordered eating/eating disorders and substance use among Missouri college students (N = 5634).

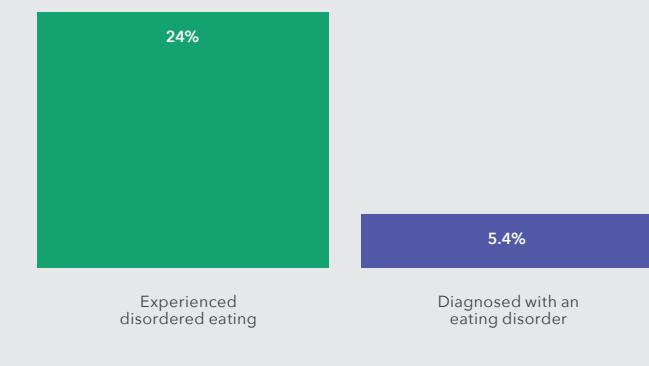
Background

Individuals who struggle with disordered eating/eating disorders have been associated with higher rates of substance use as well as comorbid substance use disorder.¹ Research has shown that college students may engage in disordered eating patterns such as food restriction – either to avoid weight gain from calories in alcohol and/or to achieve the effects of alcohol faster.³ Disordered eating behaviors such as binge eating, have been associated with binge drinking, prescription drug use, and tobacco use.² ⁴ Eating disorders are a diagnosable mental health concern. This is self-reported data, and some students who report experiencing disordered eating may be diagnosed with an eating disorder and some may not be diagnosed.*

Prevalence of Eating Disorders

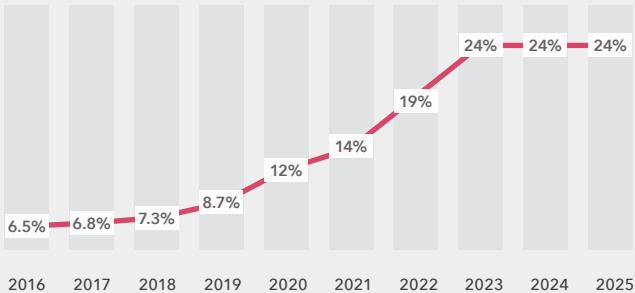
According to the 2025 MACHB survey, 24% of Missouri college students reported experiencing disordered eating** in the past year, and 5.4% of students report being diagnosed by a medical or mental health professional with an eating disorder (Chart 1).

Chart 1: Prevelence of Disordered Eating/Eating Disorders



Additionally, the percentage of students who report experiencing disordered eating/eating disorders in the past year has increased since 2016 and remained steady in the past year (Chart 2).

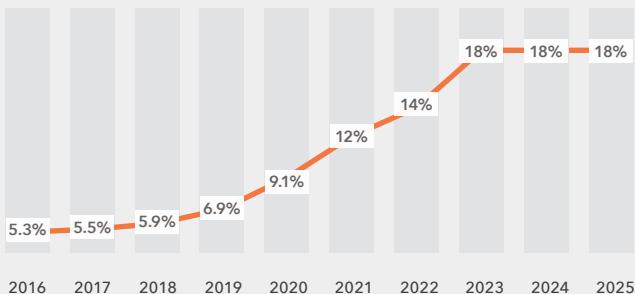
Chart 2: Past Year Experience of Disordered Eating/Eating Disorders



Eating Disorders and Substance Use

According to the 2025 MACHB, 18% of students experienced both an eating disorder and used at least once substance (i.e., alcohol, binge drinking, prescription drugs, cannabis, tobacco) in the past year. The percentage of those who experience both had been increasing since 2016 and have remained steady in the last few years (Chart 3).

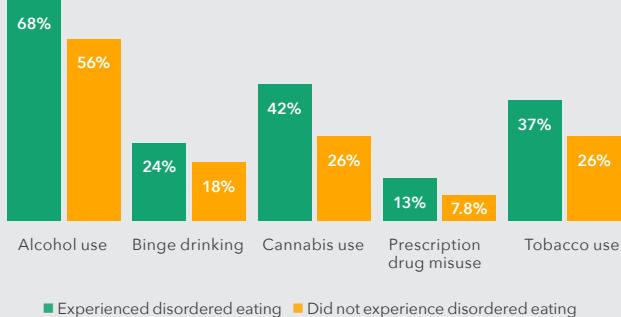
Chart 3: Past Year Experience of Disordered Eating AND Substance Use



Students who had experienced disordered eating in the past year were more likely to have engaged in substance use compared to students who have not experienced disordered eating (as shown in Chart 4). Those who experienced disordered eating were more likely to report both past year alcohol use, as well as binge drinking (consuming 4+ drinks for women or 5+ drinks for men in a 2-hour period at least once

in the past 2 weeks) compared to those who had not experienced disordered eating. There were also higher rates of other substance use including past year cannabis use, past year prescription drug misuse (either use of drugs without a prescription or misusing their own prescription), and past year use of tobacco/nicotine products among those who experienced disordered eating.

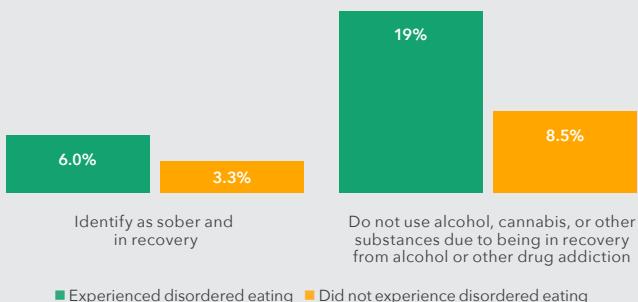
Chart 4: Past Year Disordered Eating and Substance Use



Eating Disorders and Substance Use Recovery

More students who had experienced disordered eating in the past year report identifying as sober and in recovery from alcohol or other drug addiction than students who had not experienced disordered eating (6.0% compared to 3.3%, respectively). Additionally, among students who report experiencing disordered eating in the past year, 19% do not use alcohol, cannabis, or other substances because they are in recovery from alcohol or other drug addiction, compared to only 8.5% of students who did not experience disordered eating in the past year (Chart 5).

Chart 5: Past Year Disordered Eating and Substance Use Recovery



Summary

The co-occurrence of mental health and substance use disorders is common, and MACHB data supports a correlation between experiences of disordered eating and higher rates of substance use. Students who report experiencing disordered eating report both higher rates of alcohol, cannabis, prescription drug, and tobacco use, as well of higher rates of being in recovery due to alcohol or other drug addiction. Given the rise in the percentage of students who report experiencing disordered eating over the years, it is important to screen for eating disorders in clinical services like counseling and mental health centers. Seeing as there is a correlation between substance use and eating disorders, best practices might aim to incorporate screening for substance use disorders among those who report experiencing disordered eating/eating disorders. Furthermore, when aiming to address the potential co-occurrence of these concerns, integrative approaches might be most beneficial and give students the opportunity to gain insight of these intersections for themselves.

Resources

Body U is a free, online program funded by the Missouri Eating Disorders Council and coordinated by Washington University in St. Louis. It is available

to anyone in Missouri and helps address body image, mood, and anxiety. Participants complete a 5-minute confidential survey and then access a program tailored specifically to their needs. Visit bodyu.org to learn more.

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

Report and data prepared by Meg Mottola, Research Coordinator.

*The MACHB asks about both experiences and diagnoses of various mental health concerns -- students often note experiencing signs and symptoms, such as disordered eating, but have not taken steps and/or do not have access to see a professional for a formal diagnosis.

**In 2023, the MACHB changed “experienced eating disorder(s)” to experienced disordered eating. To match the terminology in the most recent survey, “disordered eating” will be predominately used throughout this brief.

References:

1. Bulik CM, Klump KL, Thornton L, Kaplan AS, Devlin B, Fichter MM, et al (2004): Alcohol use disorder comorbidity in eating disorders: A multicenter study. *J Clin Psychiatry* 65:1000 -1006.
2. Kelly-Weeder, S. (2010). Binge drinking and disordered eating in college students. *Journal of the American Academy of Nurse Practitioners*, 23(1), 33-41. <https://doi.org/10.1111/j.1745-7599.2010.00568.x>
3. Osborne, V. A., Sher, K. J., & Winograd, R. P. (2011). Disordered eating patterns and alcohol misuse in college students: Evidence for “drunkorexia”? *Comprehensive Psychiatry*, 52(6). <https://doi.org/10.1016/j.comppsych.2011.04.038>
4. Piran, N., & Robinson, S. R. (2006). Associations between disordered eating behaviors and licit and illicit substance use and abuse in a university sample. *Addictive Behaviors*, 31(10), 1761-1775. <https://doi.org/10.1016/j.addbeh.2005.12.021>