

Intersection of Eating & Substance Use Disorders: Adult Trends

Nicholas C. Peiper, PhD, MPH

Kentucky Hospital Association Webinar

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UNIVERSITY OF
LOUISVILLE
SCHOOL OF PUBLIC HEALTH
& INFORMATION SCIENCES



EATING ANXIETY TREATMENT
LABORATORY AND CLINIC

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Objectives

- Summarize the overlap between eating and substance use disorders in adults
 - Highlight findings from federal and state surveillance systems
 - Review findings from clinical research studies
- Present new findings on substance use in adults with eating disorders
 - Share preliminary data from an ongoing epidemiological study of substance misuse in eating disorders
 - Provide three recommendations for medical and public health providers to address the overlap of eating and substance use disorders

Defining Eating Disorders (EDs)

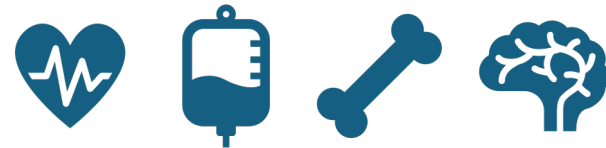
- Broad group of mental disorders with core features:
 - Behaviors like restriction, excessive or compulsive exercising, self-induced vomiting, laxative use, and pill or supplement use
 - Maladaptive thoughts and perceptions about food, weight, and body shape
- Common EDs
 - Anorexia nervosa (AN)
 - Bulimia nervosa (BN)
 - Binge eating disorder (BED)
 - Other specified feeding and eating disorders (OSFED)

Significant Burden of Eating Disorders

- Debilitating
 - On average time from diagnosis to recovery is 10 years
 - Only 50% treatment effectiveness, with 30-40% relapse
 - Often become chronic and recurring illnesses
- High mortality rate
 - Anorexia nervosa has the second highest mortality rate of all mental disorders (only surpassed by opioid use disorders)
 - High overlap with other risk behaviors like suicidality and drug misuse

Significant Costs of Eating Disorders

- Severe eating disorders can require inpatient and residential treatment
 - Average monthly cost of inpatient treatment is \$68,000
 - Average monthly cost of residential program is \$30,000
 - Outpatient treatment can cost upwards of \$200/session
 - Most individuals with eating disorders seek treatment in non-specialty care centers
- When left untreated, eating disorders can lead to medical complications
 - Heart failure, kidney failure, osteoporosis, diabetes, stroke, gastric rupture, hypoglycemia, and more
 - Additional costs to the Medicare system from co-occurring medical and mental illnesses and ER visits.



Defining Substance Use Disorders (SUDs)

- Broad group of mental disorders with core features:
 - Compulsive and risky patterns of consumption associated with significant impairment
 - Maladaptive thoughts and perceptions about using substances
 - Continued use despite harm and psychosocial impairments
 - Physiological dependence
- Common SUDs
 - Alcohol use disorder
 - Opioid use disorder (hydrocodone, oxycodone, fentanyl)
 - Stimulant use disorder (cocaine, methamphetamines)
 - Cannabis use disorder
 - Tranquilizer use disorder (benzodiazepines, sedatives)

Significant Burden of Substance Use Disorders

- Debilitating
 - On average time from diagnosis to recovery is 8-25 years
 - Average of 5 recovery attempts, with 40-60% relapse
 - Often become chronic relapsing illnesses
- High morbidity and mortality
 - Opioid use disorder has the highest mortality rate of all mental disorders (followed by anorexia nervosa)
 - High rates of medical complications (cardiovascular, metabolic, gastrointestinal, hepatic, neurological, infectious)
 - High overlap with other risk behaviors like suicidality and drug misuse

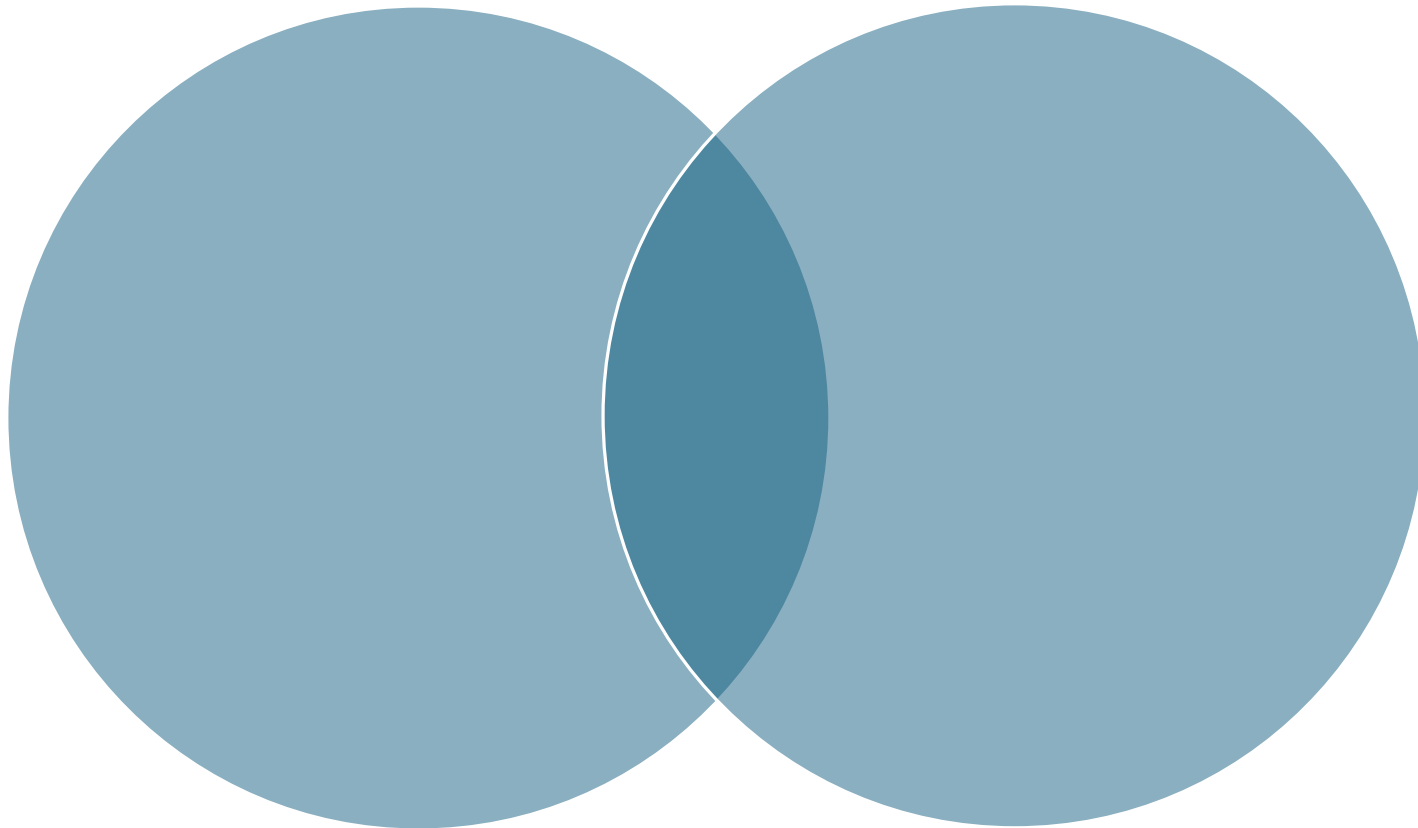
Significant Costs of Substance Use Disorders

- Substance use disorders can require inpatient and outpatient treatment
 - Average monthly cost of inpatient ~\$15-60,000
 - Average monthly cost of outpatient ~\$20,000
 - Outpatient treatment can cost upwards of \$200/session
 - Most individuals with SUDs seek treatment in non-specialty care centers
- Huge costs in Kentucky
 - Combined costs of ~\$25B for OUD and overdoses
 - KY ranks 4th out of 38 in per-resident costs of OUD (\$5,941)
 - Criminal justice-involved SUD costs \$11,612 per year per person
 - Every \$1 invested in SUD treatment returns >\$3

Intersection of Eating & Substance Use Disorders

EDs

SUDs



Intersection of Eating & Substance Use Disorders

EDs

Behavioral Targets

- Body
- Food
- Eating habits
- Exercise patterns

SUDs

Behavioral Targets

- Licit drugs
- Illicit drugs
- Drug use equipment

Intersection of Eating & Substance Use Disorders

EDs

Behavioral Targets

- Body
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SUDs

Behavioral Targets

- Licit drugs
- Illicit drugs
- Drug use equipment

Overlaps

- Mood-altering effects
- Maladaptive coping
- Functional impairments
- Comorbidities
- Social isolation
- Treatment resistance

Intersection of Eating & Substance Use Disorders

Psychoactive



Non-Psychoactive



Reasons for Use

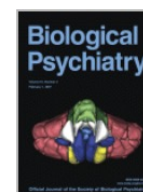
- Maladaptive coping
- Appetite reduction
- Weight control
- Reduce inhibitions
- Enhance ED behaviors

What Do Federal Surveillance Data Say?

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Biological Psychiatry
Volume 61, Issue 3, 1 February 2007, Pages 348-358



Original article

The Prevalence and Correlates of Eating Disorders in the National Comorbidity Survey Replication

James I. Hudson^a  , Eva Hiripi^b, Harrison G. Pope Jr.^a, Ronald C. Kessler^b

What Do Federal Surveillance Data Say?

- National Comorbidity Survey – Replication (2001-2003)
 - 5,692 adult respondents with any lifetime mental disorder
 - 2,980 adult respondents randomly assigned to report on EDs
- Three EDs evaluated using DSM-IV criteria
 - Anorexia nervosa (AN)
 - Bulimia nervosa (BN)
 - Binge eating disorder (BED)
- Bivariate associations with substance use disorders (SUD)
 - Any SUD
 - Alcohol use disorder
 - Illicit drug use disorder

Prevalence and Age of Onset of EDs

Lifetime Prevalence

0.5% \pm 0.2

Anorexia Nervosa

1.0% \pm 0.2

Bulimia Nervosa

2.8% \pm 0.4

Binge-Eating Disorder

Prevalence and Age of Onset of EDs

Lifetime Prevalence

0.5% \pm 0.2

Anorexia Nervosa

1.0% \pm 0.2

Bulimia Nervosa

2.8% \pm 0.4

Binge-Eating Disorder

Age of Onset

18.9 \pm 0.8

Anorexia Nervosa

19.7 \pm 1.3

Bulimia Nervosa

25.4 \pm 1.2

Binge-Eating Disorder

Lifetime SUD Comorbidity of EDs

Anorexia Nervosa

Bulimia Nervosa

Binge Eating Disorder

Lifetime SUD Comorbidity of EDs

Anorexia Nervosa

27.0%

Any SUD

24.5%

Any AUD

17.7%

Any Illicit SUD

Bulimia Nervosa

Binge Eating Disorder

Lifetime SUD Comorbidity of EDs

Anorexia Nervosa

27.0%
Any SUD

24.5%
Any AUD

17.7%
Any Illicit SUD

Bulimia Nervosa

36.8%
Any SUD

33.7%
Any AUD

26.0%
Any Illicit SUD

Binge Eating Disorder

Lifetime SUD Comorbidity of EDs

Anorexia Nervosa

27.0%
Any SUD

24.5%
Any AUD

17.7%
Any Illicit SUD

Bulimia Nervosa

36.8%
Any SUD

33.7%
Any AUD

26.0%
Any Illicit SUD

Binge Eating Disorder

23.3%
Any SUD

21.4%
Any AUD

19.4%
Any Illicit SUD

SUD Estimates in the US General Population



12-Month Prevalence (2023)

Any SUD

17.1%

48.5M

AUD

10.2%

28.9M

IDUD

9.6%

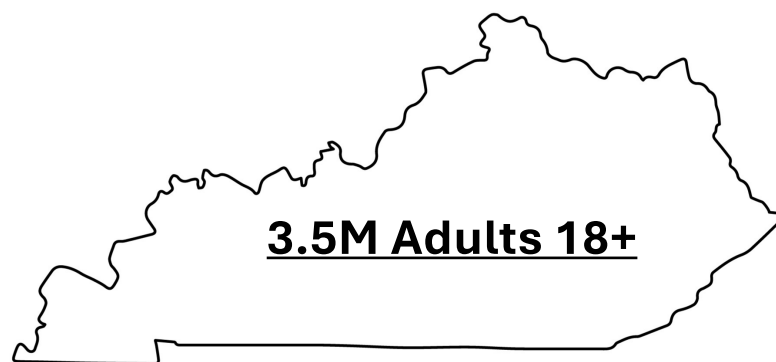
27.2M

AUD & IDUD

2.7%

7.5M

Estimates in the KY General Population



Prevalence Estimates

Any ED (2022)

6.4%

166K

Any SUD (2021)

17.2%

602K

AUD (2021)

9.3%

326K

IDUD (2021)

10.2%

357K

What Do Recent Systematic Reviews Say?

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Psychiatry Research 273 (2019) 58–66



Contents lists available at [ScienceDirect](#)

Psychiatry Research

journal homepage: www.elsevier.com/locate/psychres



Review article

Prevalence of substance use disorder comorbidity among individuals with eating disorders: A systematic review and meta-analysis

Anees Bahji^{a,b,*}, Mir Nadeem Mazhar^a, Chloe C. Hudson^c, Pallavi Nadkarni^a, Brad A. MacNeil^a, Emily Hawken^a

^a Department of Psychiatry, Queen's University, Kingston, Ontario, Canada

^b Department of Public Health Sciences, Queen's University, Kingston, Ontario, Canada

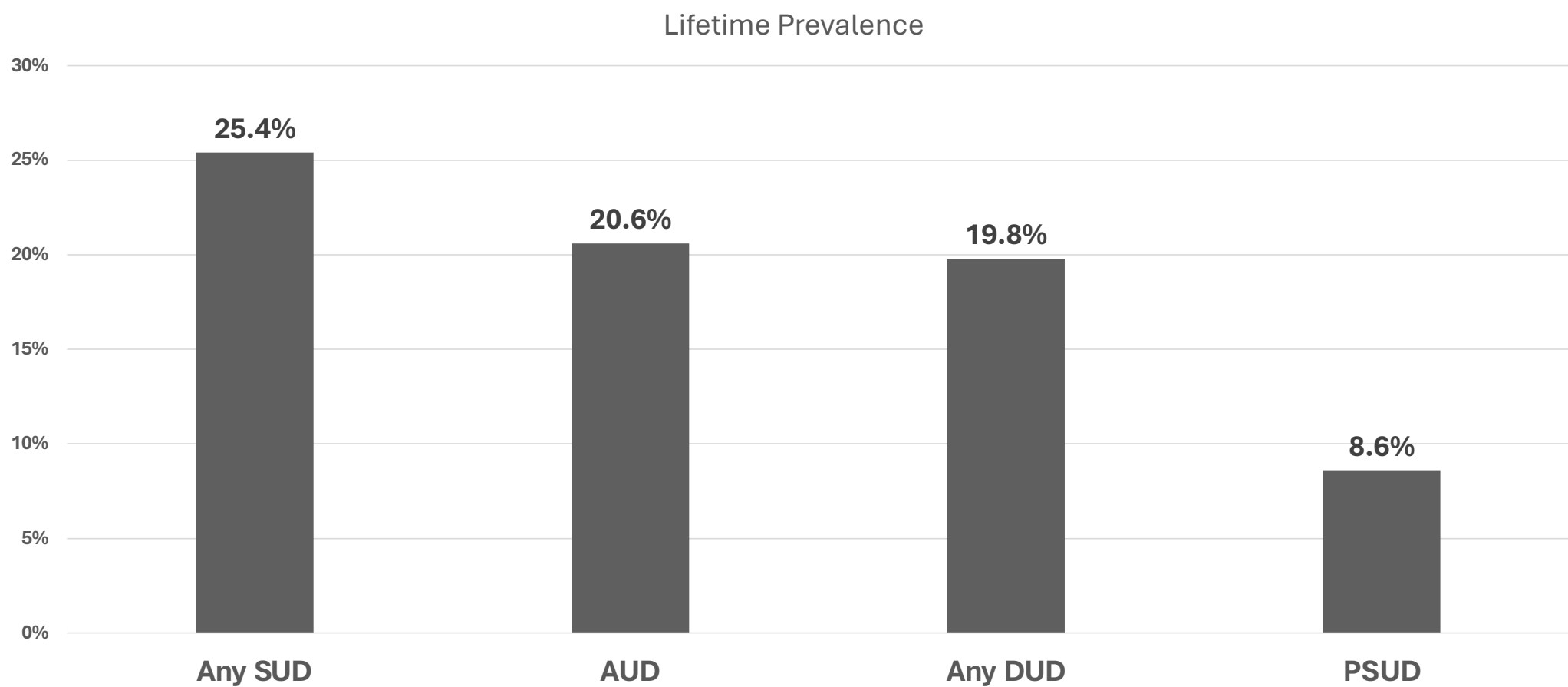
^c Department of Psychology, Queen's University, Kingston, Ontario, Canada



What Do Recent Systematic Reviews Say?

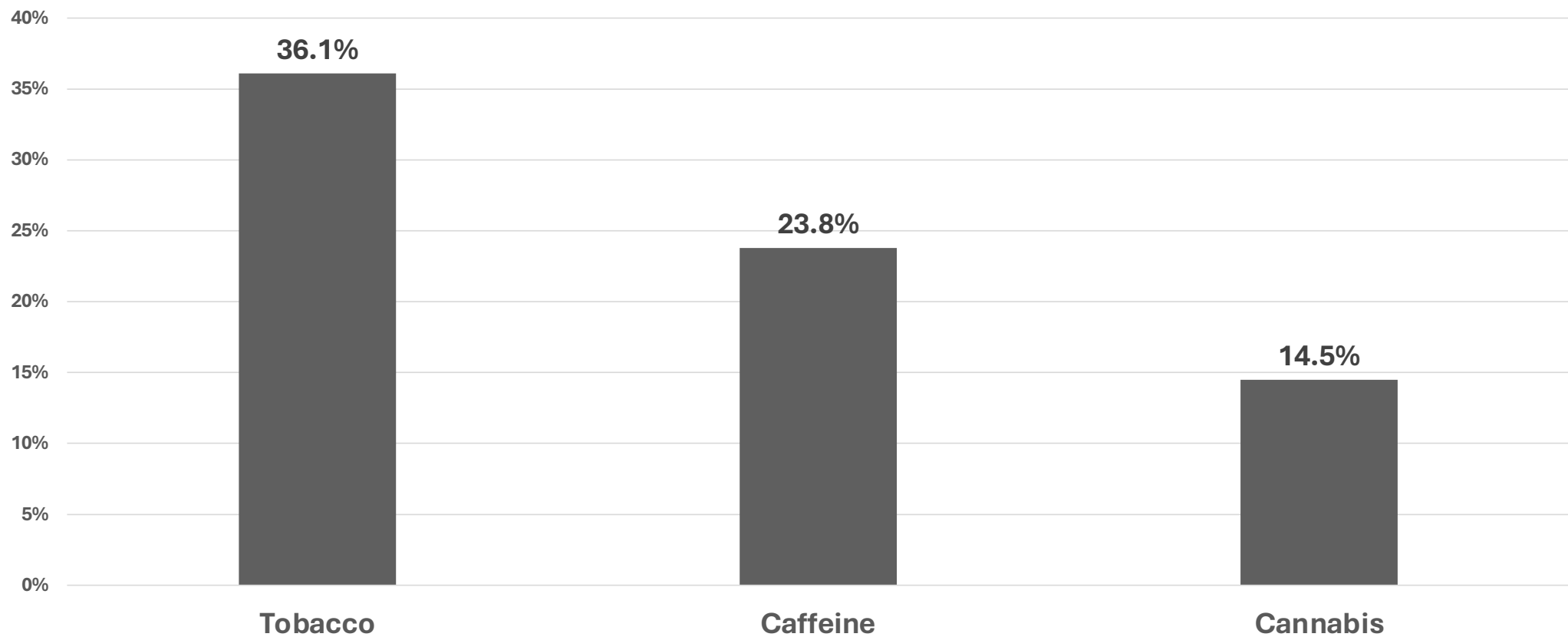
- Comprehensive meta-analysis
 - 43 studies with 18,143 people with EDs
 - Inpatient and outpatient samples in the US, EU, Canada, and Australia
- Pooled estimates of lifetime and current SUD
 - Any SUD
 - Nicotine/tobacco, caffeine, alcohol, cannabis
 - Prescription drugs and illicit drugs
- ED subtypes (lifetime %)
 - AN 13%, BN 34%, BED 18%
 - ENDOS 12%, Unspecified 27%

Lifetime SUD Estimates in EDs

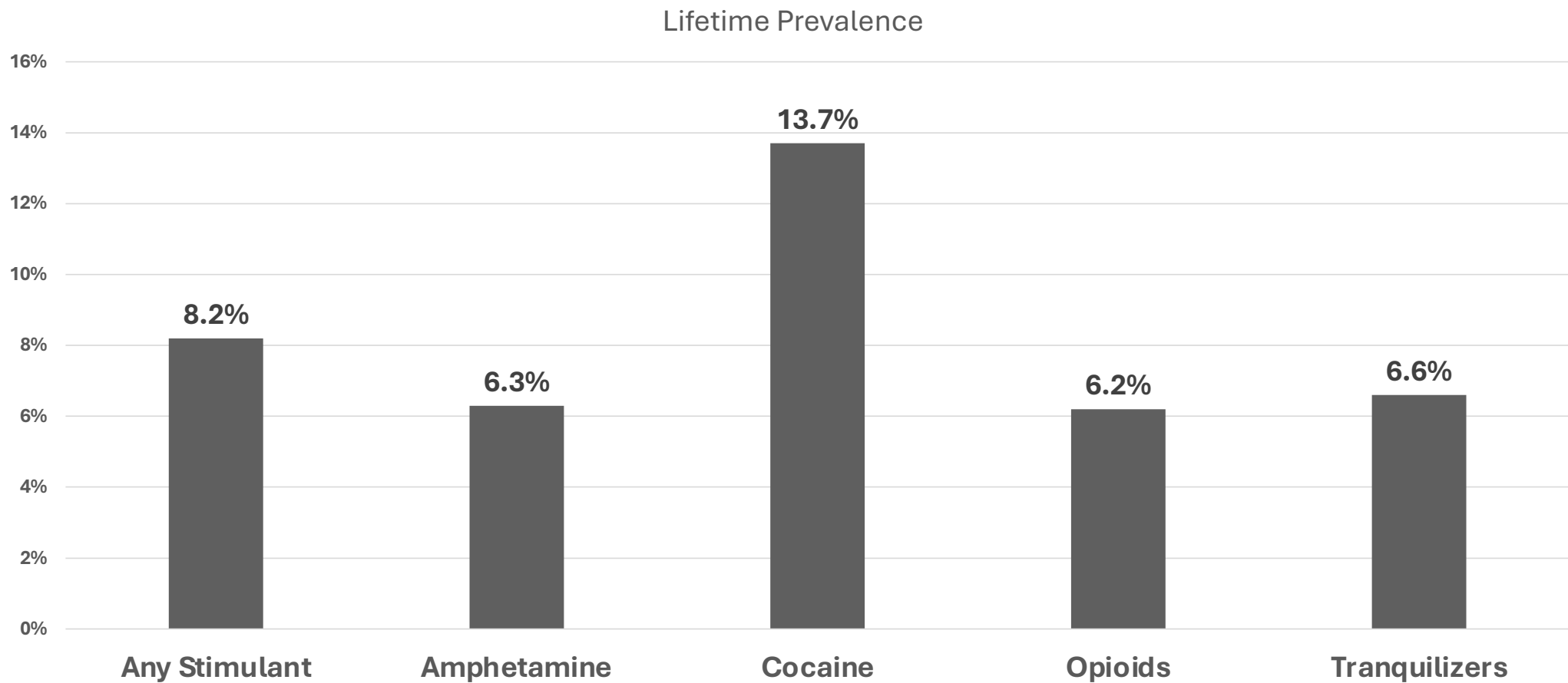


Lifetime SUD Estimates in EDs

Lifetime Prevalence



Lifetime SUD Estimates in EDs



What Do New Epidemiological Studies Say?

What Do New Epidemiological Studies Say?

- EAT Lab Prescription Weight Loss Drug Study
 - Use and misuse of glucagon-like peptide-1 (GLP-1) drugs in EDs
 - Exposure to GLP-1 marketing
 - Evolving compounding and generic market
- Extensive drug use module
 - Nicotine and tobacco, alcohol, cannabis, prescription drugs, illicit drugs
- Progress to Date
 - Approximately 200 respondents recruited since March 2025
 - Targeting 1,000 respondents overall

Prescription Weight Loss Drug Survey

Researchers at the University of Louisville Want to Know What You Think about Glucagon-Like Peptide-1 (GLP-1) Prescription Weight Loss Drugs!

GLP-1 medications like Ozempic, Wegovy, and Zepbound are prescribed for diabetes management and weight loss.

What is it?

- One-time, 15 minute survey assessing perspectives, knowledge, and experiences with GLP-1 medications.
- Participants who take the main study survey may be able to enter into a raffle for a \$150 gift card!

Who is eligible?

- People who have ever been diagnosed with an eating disorder in their lifetime.
- Must be at least 18 years old.
- **No requirement** to be taking OR not taking these medications!

Contact:

For more information, contact
glp1study@louisville.edu

or principal investigators:
nicholas.peiper@louisville.edu (502-852-9453)
cheri.levinson@louisville.edu (502-852-7710)

Scan the QR code to take
the survey!



https://redcap.louisville.edu/redcap/surveys/?s=T4WKM3JE9T9HJ9WF&survey_source=flyer

Please reach out for more information

Nicholas Peiper, PhD, MPH
nicholas.peiper@Louisville.edu
502-852-9453

Summary

- EDs and SUDs both chronic and debilitating disorders
 - Main differences are the behavioral targets
 - Significant overlaps with coping, mood-altering, impairments, comorbidities, and treatment resistance
- Unique patterns of substance use in EDs
 - Tobacco, caffeine, and stimulant use common for restriction
 - Alcohol and cannabis also common, likely related to bingeing
 - Prescription drug misuse 5-6x higher in EDs than the general population
- GLP-1 use and misuse common in EDs
 - Lifetime prevalence estimate 2-3x higher than general population
 - 1 in 5 of lifetime users engaged in misuse

The background features a dark navy blue field. A large, lighter teal circular arc enters from the top left, curving towards the center. A vertical line of the same teal color divides the image in half. At the bottom, a horizontal teal bar spans the width of the image. The word "Recommendations" is centered in white text.

Recommendations

1. Integrate EDs and SUDs in Health Surveillance Systems



2. Integrate EDs and SUDs in Behavioral Health Care

3. Monitor Emergent Drug Trends in ED Populations

Additional Resources

- National Suicide Helpline: 988
- Crisis Text Line: Text “HOME” to 741-741
- National Alliance for Eating Disorders Helpline: 1 (866) 662-1235
- <https://www.louisvilleeatlab.com/>
- <https://www.theprojectheal.org/meal-support>
- <https://map.nationaleatingdisorders.org/>
- <https://www.samhsa.gov/national-center-excellence-eating-disorders-nceed>
- <https://www.nimh.nih.gov/health/topics/eating-disorders>

Disclosures

- Dr. Peiper reports research support from the National Institutes of Health, CDC Foundation, Gilead Sciences, and Abbott Laboratories.
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Nicholas Peiper, PhD, MPH

- E-mail: nicholas.peiper@louisville.edu
- Phone: 502-852-9453

Thank you!

**Clinical Treatment &
Research Opportunities for
Individuals with Eating
Disorders are Available!**



**EATING ANXIETY TREATMENT
LABORATORY AND CLINIC**



**KENTUCKY
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for Eating Disorders