Not Just for Sport: Gambling Risk Among Athletes and Coaches

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Why Focus on Athletics?

- Higher rates of gambling participation & problem gambling

- Intrinsic and extrinsic forces at play:
  - Competitiveness & Risk-Taking & Ego
  - Intimate knowledge = illusion of control
  - Environmental encouragement (home & teammates)

- Integrity + disciplinary + psychosocial issues

**Clarify that our research findings cover both college-aged and broader athlete/coach populations

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Systematic Review & Meta-Analysis of Problem Gambling Among Athletes

Included Studies

- 56 identified studies
    - 47 original, 9 secondary analyses
    - 11 studies (19.6%) funded by NCAA
- 59% used a non-probability sample
- 64% North America, 25% in Europe; 7% in Australia; 4% in Thailand
- 55% college, 21% elite, 14% youth, 9% other adult
- 41% included non-athlete comparisons
- 9% sample size <100; 30% of 100 to 499; 18% of 500 to 999; 123% of 1,000 to 5,000; 20% >5,000
- 85% majority male
- 34% included only gambling participation as an outcome variable, 18% only at-risk gambling, and 48% included both gambling participation and at-risk gambling.

Across the Research: Risk Factors Associated with Problem Gambling Among Athletes

Sociodemographic
- **Males**
- Older age
- Non-White
- Hispanic male
- Sexual minority

Comorbidity
- **Alcohol use and problems**
- Binge drinking
- Cigarette smoking
- Marijuana/other drug use
- Drug problems
- Gorging/vomiting
- Unprotected sex
- Problem video gaming
- Depression
- Sport anxiety

Gambling-Related
- Gambling online
- Regular/high frequency
- Use of free online offers
- Increased gambling during COVID-19
- Emotional involvement in gambling
- Gambling during school or watching sports
- <u>Betting on own team, on own game, or on sport they played</u>

Sport-Related
- High-profile sport
- Division III (male)
- Team sports
- Injury in the past six months (male)

Environmental
- Family member, friend, acquaintance with gambling problem
- Bet before age 18
- Gambling important to family
- Gambling with teammates
- Believing gambling important to teammates
- Talking about gambling during training or with classmates
- Coach positive attitude toward gambling (+/-)

Limitations of Previous Research

- Participation and problem risk have widely varied in their measurement
- Mostly convenience samples
- Studies have been largely exploratory, lacked theoretical grounding (all over the place)
- Most studies are older
- Almost no studies of others in sports (e.g., coaches)

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Latent Class Analysis of Athletes with

At-Risk Gambling

Sample & Analytic Strategy

Original Data:

- State-wide epidemiological sample collected in 2020-21 investigating the nature and extent of gambling and problem gambling among adults

- Dual-sampling frame: a random-digit dialing pool (including both landlines and cell phone numbers; n=1,502), and online survey (n=2,010).

Study Sample: 337 athletes who played post-high school and scored 3+ on PGSI (*N* = sufficient for LCA)

Analytic Strategy
- A series of latent class analyses (LCA) were conducted in Stata 18
    - identifies qualitatively different subgroups, based on patterns of scores across survey questions or assessment indicators
    - used to classify etiological subgroups in the Revised Pathways Model
- Model fit was assessed by:
    - Akaike information criteria (AIC) and Bayesian information criteria (BIC)
    - The adjusted Lo-Mendell-Rubin likelihood ratio test (aLRT) was conducted for models with two or more profiles
- *Linear probability distribution (continuous)*: depression, anxiety, stress, drug use problems, alcohol use problems *Poisson distribution (count)*: potentially addictive behaviors, sport involvement
  Logit distribution (binary): gambling with family during childhood, gambling-related crime, gambling-related thoughts to hurt someone, suicidality, and non-suicidal self-injury
- Post-hoc analyses across latent classes.
    - Chi square tests (categorical variables) and ANOVA (continuous).
    - Pairwise comparison analyses

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Guiding Theory: The Revised Pathways Model of Problem Gambling

The foremost etiological framework to explain the unique pathways to problem gambling.

Common risk factors include:

- availability and access to gambling opportunities
- cognitive distortions
- conditioning effects of continued play

Pathway 1:

Behaviorally Conditioned

- Absence of pre-morbid psychopathology

Pathway 2:

Emotionally Vulnerable

- childhood maltreatment, dysphoric mood both before and/or after gambling became a problem, gambling for stress-coping motivations

Pathway 3:

Antisocial Impulsivist

- impulsivity, anti-social traits, risk-taking, meaning motivation for gambling

Variables in LCA Model

Pathway 2 Variables
- Depression (continuous)
- Anxiety (continuous)
- Stress (continuous)
- Suicidality (binary)
- Non-suicidal self-injury (binary**)**

Pathway 3 Variables/Proxies
- Gambling-related crime (binary)
- Gambling-related thoughts to hurt (binary)

Participation in gambling during childhood (binary)
Potentially addictive behaviors (composite score, treated continuously)
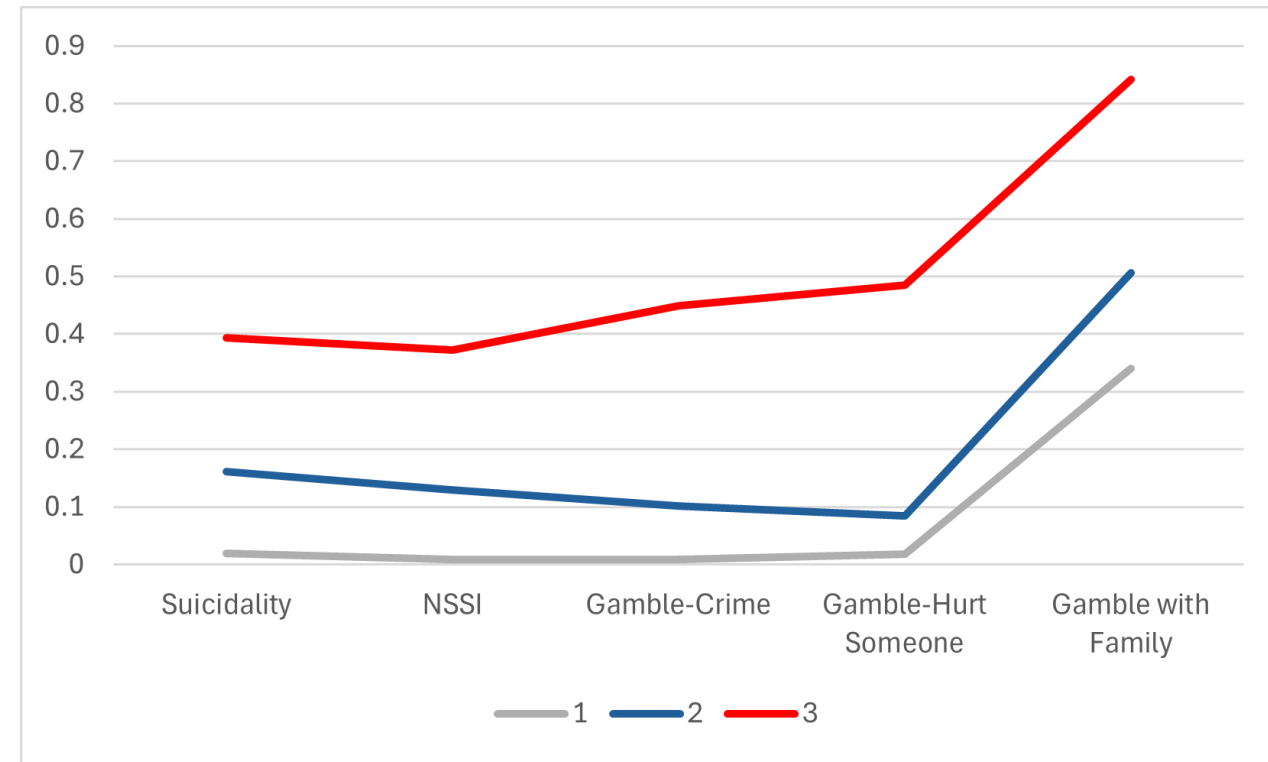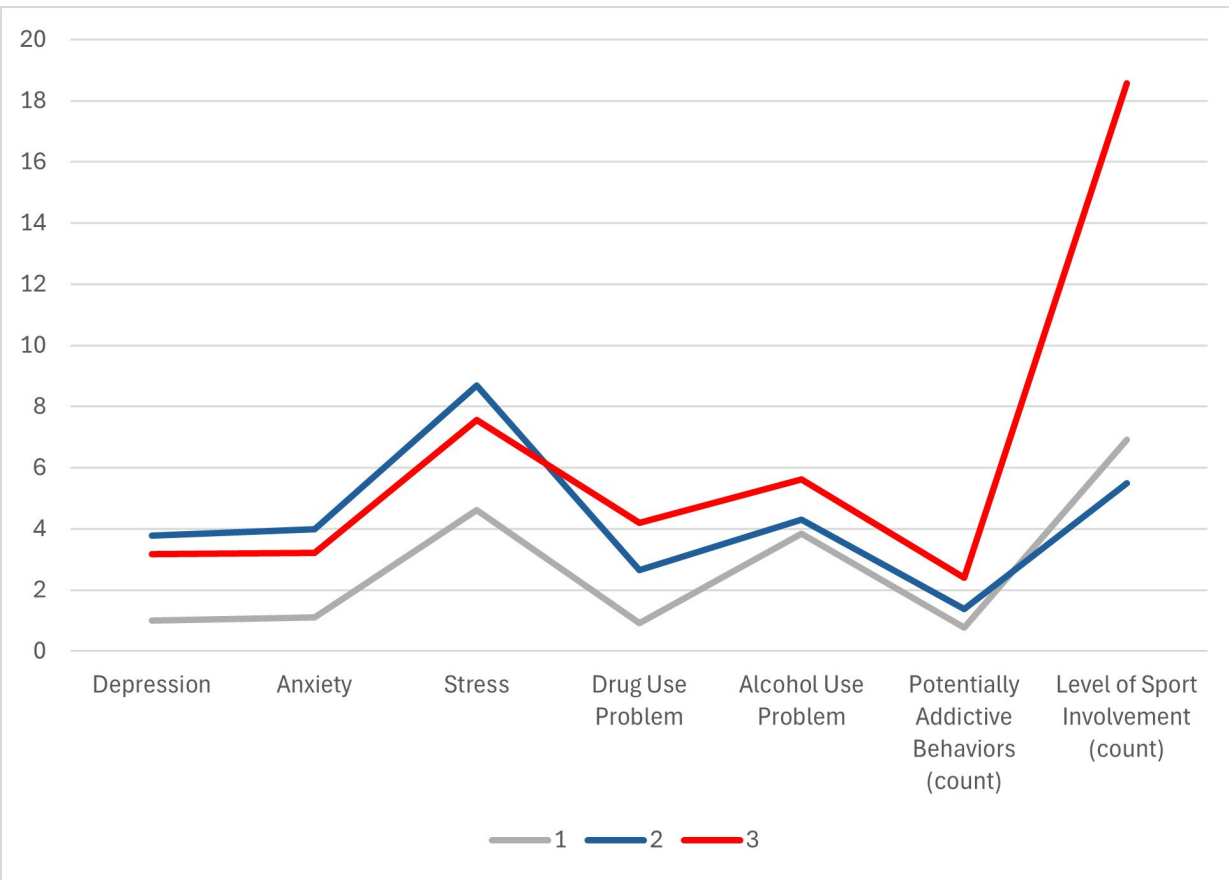Drug use problems (continuous)
Alcohol use problems (continuous)
Sport involvement (composite score, treated continuously)

*Gender and age included as covariates.

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3-Class Model Solution

Demographic Variables Across Latent Classes

	Class 1 Behaviorally Conditioned (n = 110)	Class 2 Highly Internalizing (n = 97)	Class 3 Internalizing-Externalizing (n = 130)
Gender			
Male	72.73% (80)	61.86% (60)	69.53% (89)
Female	27.27% (30)	38.14% (37)	30.00% (39)
Age (M [SD])*	47.61 (15.37)[a]	38.43 (14.09)[b]	33.24 (10.03)[c]
Race*			
White	74.55% (82)	67.01% (65)	59.23% (77)
Black/African American	10.00% (11)	17.53% (17)	25.38% (33)
AAPI	9.09% (10)	4.12% (4)	8.46% (11)
Other	6.36% (7)	11.34% (11)	6.92% (9)
Hispanic	25.45% (28)	26.80% (26)	30.00% (39)
Current or Former NCAA Athlete*	13.64% (15)[b]	12.37% (12)[b]	53.85% (70)[a]

Gambling Variables Across Latent Classes

	Class 1 Behaviorally Conditioned (n = 110)	Class 2 Highly Internalizing (n = 97)	Class 3 Internalizing-Externalizing (n = 130)
PGSI Score (M [SD])*	6.41 (5.04)[c]	10.00 (5.72)[b]	15.44 (5.64)[a]
Problem Gambling*			
Moderate Risk	74.49% (73)	40.62% (39)	7.69% (10)
High Risk	25.51% (25)	59.38% (57)	92.31% (120)
Gambling Frequency*			
Low (Less than monthly)	17.27% (19)	13.40% (13)	0.00% (0)
Moderate (1-3x/month)	26.36% (29)	20.62% (20)	11.54% (15)
High (Weekly or more)	56.36% (62)	65.98% (64)	88.46% (115)
# of Gambling Activities (M [SD])*	5.59 (4.16)[b]	6.96 (4.98)[b]	13.55 (2.74)[a]
Sports Betting	44.55% (49)[b]	51.55% (50)[b]	91.54% (119)[a]

Behaviors and Suicidality Across Latent Classes

	Class 1 Behaviorally Conditioned (n = 110)	Class 2 Highly Internalizing (n = 97)	Class 3 Internalizing-Externalizing (n = 130)
Binge Eating	17.27% (19)[c]	37.11% (36)[b]	52.31% (68)[a]
Unprotected Sex with Strangers	6.36% (7)[b]	11.34% (11)[b]	44.62% (58)[a]
Prostitution	1.82% (2)[b]	6.19% (6)[b]	32.31% (42)[a]
Excessive Pornography Use	21.82% (24)[c]	29.90% (29)[b]	45.38% (59)[a]
Excessive Video/Internet Gaming	32.73% (36)[b]	51.55% (50)[a]	63.85% (83)[a]
Suicide Attempt	0.00% (0)[b]	8.33% (8)[b]	27.78% (35)[a]

Key Contributions

- **Athletes with gambling problems are not all the same**
  - Pathways Model useful tool to understand variation in problem gambling experiences
  - **First study using Pathways Model with athletes; first study that has found that Pathway 3 emerged as the largest group.**
  - Within athlete populations, variation in education, prevention, and intervention
- **Highest risk group (Internalizing-Externalizing):**
  - Extremely high participation in gambling with family during childhood
  - Most sports involvement, particularly at NCAA level
  - Younger, more Black/African Americans

Preliminary Analysis of College Population (Athletes vs Non-Athletes)

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College Students in Prevalence Study Data

N=377

- Never Played a Sport = 63

- Played a Sport in Middle or High School (No Longer Playing) = 165

- Currently Playing a Sport = 149
  - NCAA = 55
  - Club = 32
  - Intramural = 15
  - Personal Recreation = 47

Problem Gambling Among College Students by Athlete Status

	No Risk (PGSI=0)	Low Risk (PGSI=1-2)	Moderate Risk (PGSI=3-7)	High Risk (PGSI=8+)
Never Played a Sport	90.48% (57)	1.59% (1)	3.17% (2)	4.76% (3)
Played in Middle or High School Only	78.79% (130)	10.91% (18)	6.67% (11)	3.64% (6)
Currently Playing in College	46.31% (69)	6.04% (9)	10.07% (15)	37.58% (56)
Total	**67.90% (256)**	**7.43% (28)**	**7.43% (28)**	**17.24% (65)**

*Controlling for gender, age, race, and ethnicity, currently playing sports while in college was associated with scoring **4.96 points higher** on the PGSI compared to those who never played a sport*.

*Older age and Hispanic ethnicity also were related to problem gambling.

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Problem Gambling Among College Students in Sports

	No Risk (PGSI=0)	Low Risk (PGSI=1-2)	Moderate Risk (PGSI=3-7)	High Risk (PGSI=8+)
NCAA	21.82% (12)	3.64% (2)	7.27% (4)	67.27% (37)
Club	37.50% (12)	6.25% (2)	18.75% (6)	37.50% (12)
Intramural	60.00% (9)	6.67% (1)	6.67% (1)	26.67% (4)
Personal Recreation	76.60% (36)	8.51% (4)	8.51% (4)	6.38% (3)

*More serious sports involvement, higher level of commitment
*Personality and/or environmental factors among these students

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Exploratory Analysis of Coaches' Gambling & Co-Occurring Correlates

Why Coaches?

- Direct influence
- Behavioral role models
- Culture development/normalization
- Potential conflicts of interest*

This Study Sample

Current or former athletes during middle school or high school, college, adulthood, or currently, and self-identified as a current or former athlete (N = 1,778)

- Current coaches (n = 161; 9.1%)
- Former coaches (n = 595; 33.5%)
- Non-coaches (n = 1,022; 57.5%)

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Exploratory Analysis of Coaches: Gambling

	Current Coach (n=161) % (n)	Former Coach (n=595) % (n)	Non-Coach (n=1,022) % (n)
Any Gambling	83.23% (134)	71.76% (427)	66.54% (680)
High-Frequency Gambling (weekly+)	56.52% (92)	33.11% (197)	25.83% (264)
PGSI Score (mean [SD])*	9.19 (9.17)	2.49 (5.15)	1.96 (4.18)
No Risk (PGSI = 0)	36.84% (49)	66.43% (281)	63.15% (425)
Low Risk (PGSI = 1-2)	4.51% (6)	10.87% (46)	17.09% (115)
Moderate Risk (PGSI = 3-7)	9.02% (12)	8.75% (37)	9.36% (63)
High Risk (PGSI = 8+)	49.62% (66)	13.95% (59)	10.40% (70)
# of Gambling Activities* (mean [SD])	8.99 (5.94)	4.59 (4.28)	3.53 (3.27)
Sports betting	53.42% (86)	22.52% (134)	13.21% (135)
Season-long fantasy sports	52.17% (84)	21.85% (130)	11.74% (120)
Daily fantasy sports	46.58% (75)	17.14% (102)	8.81% (90)
Horse racing	45.34% (73)	15.46% (92)	8.12% (83)
E-sports betting	45.34% (73)	13.11% (78)	7.73% (79)

Exploratory Analysis of Coaches: Co-Occurring

	Current Coach (n=161) M (SD)	Former Coach (n=595) M (SD)	Non-Coach (n=1,022) M (SD)
Alcohol use problems (AUDIT-C)	4.26 (3.27)	2.98 (2.45)	2.71 (2.48)
Drug use problems (DAST-10)	2.14 (2.95)	0.90 (1.82)	0.73 (1.55)
Anxiety (PHQ-4)	2.15 (2.03)	1.43 (1.69)	1.64 (1.75)
Depression (PHQ-4)	2.10 (2.03)	1.24 (1.59)	1.36 (1.66)
Stress (PSS-4)	5.92 (3.22)	4.67 (3.22)	5.20 (3.30)
	% (n)	% (n)	% (n)
Suicidality			
Morbid thinking	28.93% (46)	9.35% (55)	10.15% (100)
Considered suicide	20.13% (32)	3.73% (22)	4.78% (48)
Attempted suicide	**17.39% (28)**	1.52% (9)	1.78% (18)
Non-suicidal self-injury	**19.38% (31)**	4.04% (24)	3.85% (39)

Logistic Regression Model

Current Coaches had nearly 3x the odds of having high-risk problem gambling (OR=2.77, 95% CI=1.42, 5.42)

Other significant risk factors:
- **Younger age** (OR=0.97, 95% CI=0.95, 0.99)
- **Current or former NCAA athlete** (OR=2.79, 95% CI=1.57, 4.97)
- **Current participation in sports** (OR=1.93, 95% CI=1.19, 3.15)
- **Perceived family sports betting** (OR=1.45, 95% CI=1.26, 1.66)
- **Alcohol problems** (OR=1.14, 95% CI=1.04, 1.24)
- **Stress** (OR=1.23, 95% CI=1.12, 1.35)
- **Excessive video gaming** (OR=2.38, 95% CI=1.46, 3.86)

Why Coaches?

- Direct influence

- Behavioral role models

- Culture development/normalization

- Potential conflicts of interest (e.g. bet and don't want to play a player, had shared inside info about whether someone was playing etc.)

Implications and Next Steps

Overall Practice Implications

- **Screen for gambling participation and problems** at other healthcare entry points particularly used by those athletically involved.

- If working with athletes, must consider **personality features and environmental factors** that may be contributing.

- Treatment approaches must consider the **exposure to pervasive gambling-positive messaging**

- **Team-level initiatives** that account for coach behavior and role in modeling behavior

- Providers understanding the **potential risks associated with being or becoming involved in sports** environments

Next Steps: Research in Sports Environments

- Keep exploring the **scope of gambling** and problems among **key subpopulations in sports:**
  - Racial and ethnic minority athletes
  - LGBTQ+ athletes
  - Coaches (at all levels and ranks)
- Qualitative deep dive into sports environments: How are behaviors normalized? Who really is influential?
- Developing and studying efficacy of targeted education, prevention, and intervention initiatives for these populations
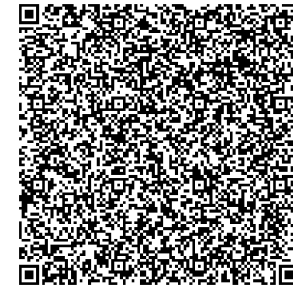
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Implementing the Agility Grant on Ohio State- Columbus

Agility Grant Implementation

Discuss OSU approach to Systems of Care

Discuss rationale for applying for Agility grant

Review how we are using the Agility grant on campus

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Who are we?

Our Mission
The Student Wellness Center collaborates with faculty, staff, students and community partners to create an inclusive culture of wellness. Student Wellness Center professional staff and peer educators empower undergraduate, graduate and professional students to overcome barriers and reach their full potential through evidence-based holistic wellness awareness, training, education and coaching.

Our Vision
To be the preeminent leader in providing inclusive wellness programs and services that promote life-long well-being.

10 Dimensions of Wellness

Wellness is **interconnected.** This means that focusing on any dimension can benefit your whole life.

- Career
- Creative
- Digital
- Emotional
- Environmental
- Financial
- Intellectual
- Physical
- Social
- Spiritual

Well-Being at Ohio State

SOCIAL · DIGITAL · FINANCIAL · PHYSICAL · INTELLECTUAL · CREATIVE · EMOTIONAL · SPIRITUAL · CAREER · ENVIRONMENTAL

Our Campus

- Large, Public Institution in the heart of the city
- Enrollment of 65k+ students
- Over 45K Faculty, Staff and student employees
- Main campus in Columbus, Ohio as well as 5 branch campuses

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# Systems Approach to Collegiate Prevention and Support

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Systems Approach

- Systems are characterized by dynamic relationships between inter-related components that make up a whole.

- Systems thinking means looking at the component parts and their characteristics, relationships and interconnections to better understand the whole

- "Whole is greater than the sum of it's parts."

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Systems Approach Guiding Concepts

- No wrong door
- Availability and accessibility
- Matching
- Choice and eligibility
- Flexibility
- Responsiveness
- Collaboration
- Coordination
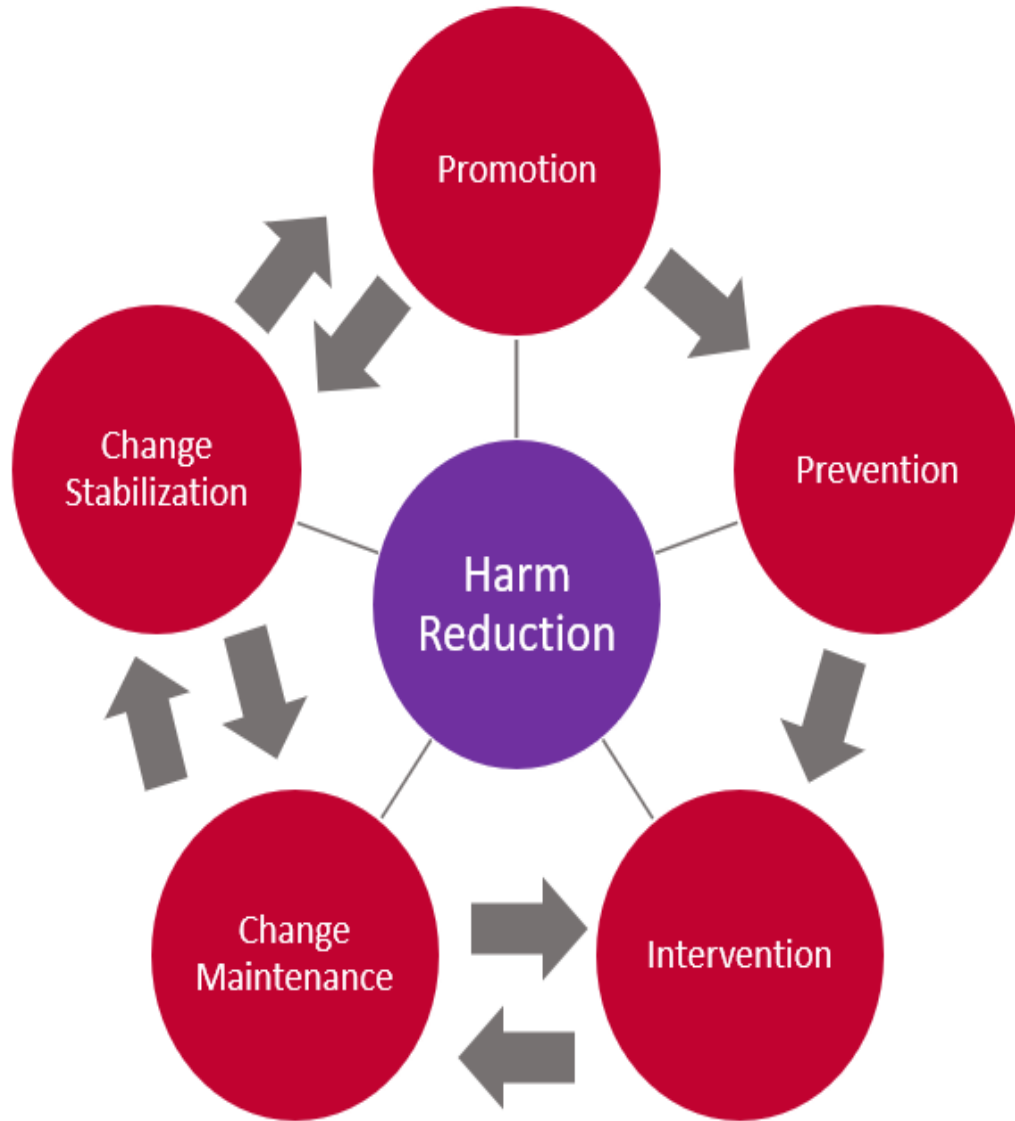
Cycle of Care

Harm Reduction: Policies, programs and practices that aim to minimize negative health, social and academic impacts associated with problem behaviors and campus policies.

Promotion: Educational programs and workshops for student groups and organizations aimed at teaching skills to make healthy decisions.

Prevention: Programming to reinforce positive decisions and lessen the negative decisions being made by students who are experiencing consequences related to choices around specific behaviors.

Intervention: Helping students who've identified risks associated with problem behaviors and connecting them with appropriate level of care to make necessary lifestyle changes.

Change Maintenance: Supporting students in maintaining new lifestyle changes as they navigate implementing them into various aspects of their lives as students.

Change Stabilization: Supporting students (recent alumni) in navigating next steps in their lives and continuing their journey towards optimal health and wellbeing

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Case Example: The Ohio State University

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Community Wellness Education

AlcoholEDU

- 90-minute training
- Two-part training
  - Part I: education, quiz, and pre-test survey
  - Part II: Post test survey
- Content
  - Physical and psychological effects of alcohol and other drugs
  - Bystander intervention training
  - Recognizing an overdose
  - Consent
  - Goal planning and stress management

Prescription Drug Safety

- 30-minute training
- Content
  - Understanding Prescriptions
  - Recognizing an Overdose
  - Stress Management
  - Practicing Refusal Strategies
  - Supporting a Friend

Mental Well-Being

- 45-minute training
- Content
  - Provides essential skills and information to navigate stressors and emotional challenges associated with college life.
  - Learn ways to practice self-care
  - Recognize when they or their peers are in distress
  - Take action to find additional support

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Health Promotion

Presentations

Presentation Topic Areas

The Student Wellness Center offers educational
presentations on the follow topics:

- Alcohol, Tobacco and Other Drug Prevention and
  Recovery
- Financial Education
- Stress Management and Resilience
- Nutrition Education
- Relationship Education and Violence Prevention
- Sexual Health
- Body Positivity

Individuals or groups interested in a Body Project session,
please fill out the Body Project Presentation Request Form.

Request a Presentation!

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Environmental Prevention

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SCREEN U

For a healthier campus life.

Screening, Brief Intervention, and Referral to Treatment (SBIRT).

- ScreenU identifies students who are misusing alcohol, marijuana, or prescription drugs

- Provides feedback and strategies to reduce their risk for experiencing negative consequences.

- Provides information about campus resources and encourages students to reach out.

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Indicated Risk

Choices is a group program where students examine how alcohol use is impacting various dimensions of their well-being so that they can make healthier choices in the future.

C.A.E.P is a group program where students examine how cannabis use is impacting various dimensions of their well-being so that they can make healthier choices in the future.

B.A.S.I.C.S/C.A.S.I.C.S are programs designed to help students explore their risky substance use with the goal of making healthier decisions.

Beyond YOur Buzz (BYOB) is weekly coaching for any students who have a desire to explore and make positive changes in their substance use.

Counseling and Consultation Services provides individual and group mental health services, psychoeducational prevention and outreach programming to currently enrolled students.

Talbot Hall provides medically/clinically supervised withdrawal management, partial hospitalization, intensive outpatient, outpatient, and medication management services.

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Rationale for Applying for Agility Grant
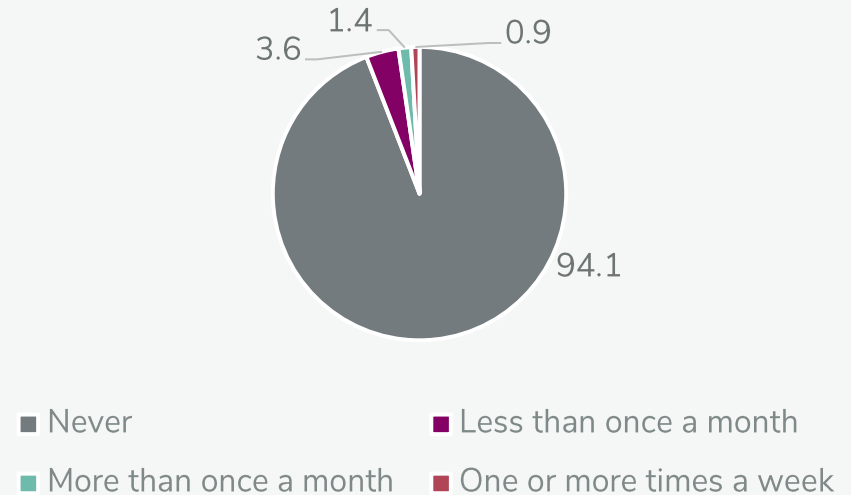
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Why We Applied

- Ohio legalized sports betting on January 1, 2023.

- Includes the ability to bet on college sports events.

- While only legal above the age of 21, we knew that our students would find a way.

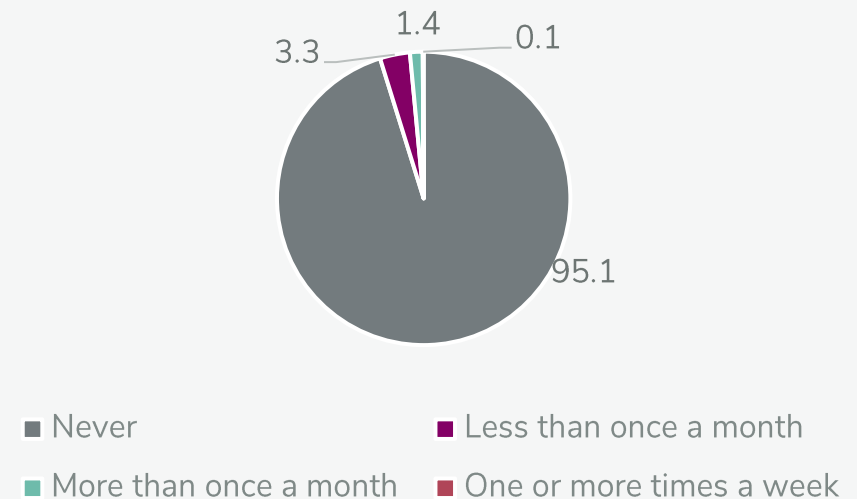- NASPA Strategies 2024 – Towson use of Agility Grant.

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Sports Betting Prevalence and Impact

On average in the last 12 months, how many times have you engaged in sports betting?
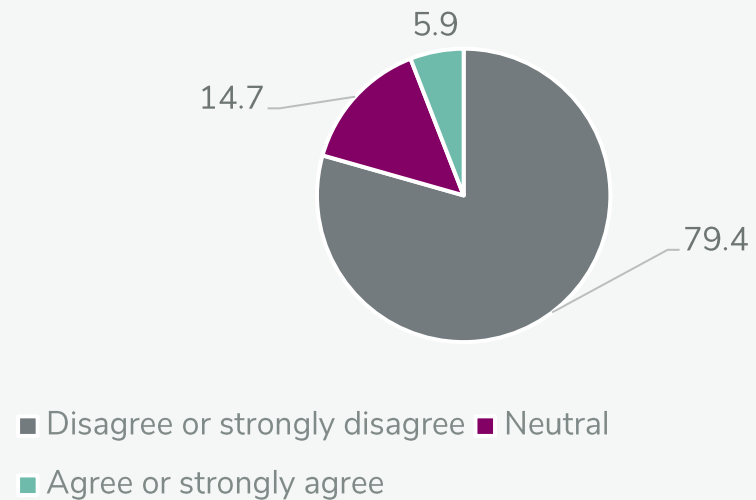
Undergraduate Students

3.6   1.4   0.9

94.1

- Never
- Less than once a month
- More than once a month
- One or more times a week

Graduate Students

3.3   1.4   0.1

95.1

- Never
- Less than once a month
- More than once a month
- One or more times a week

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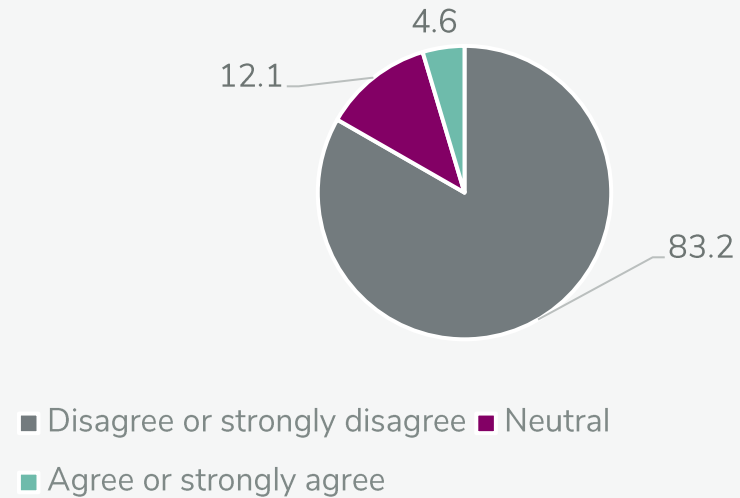
Reviewing How we've Utilized the Agility Grant.

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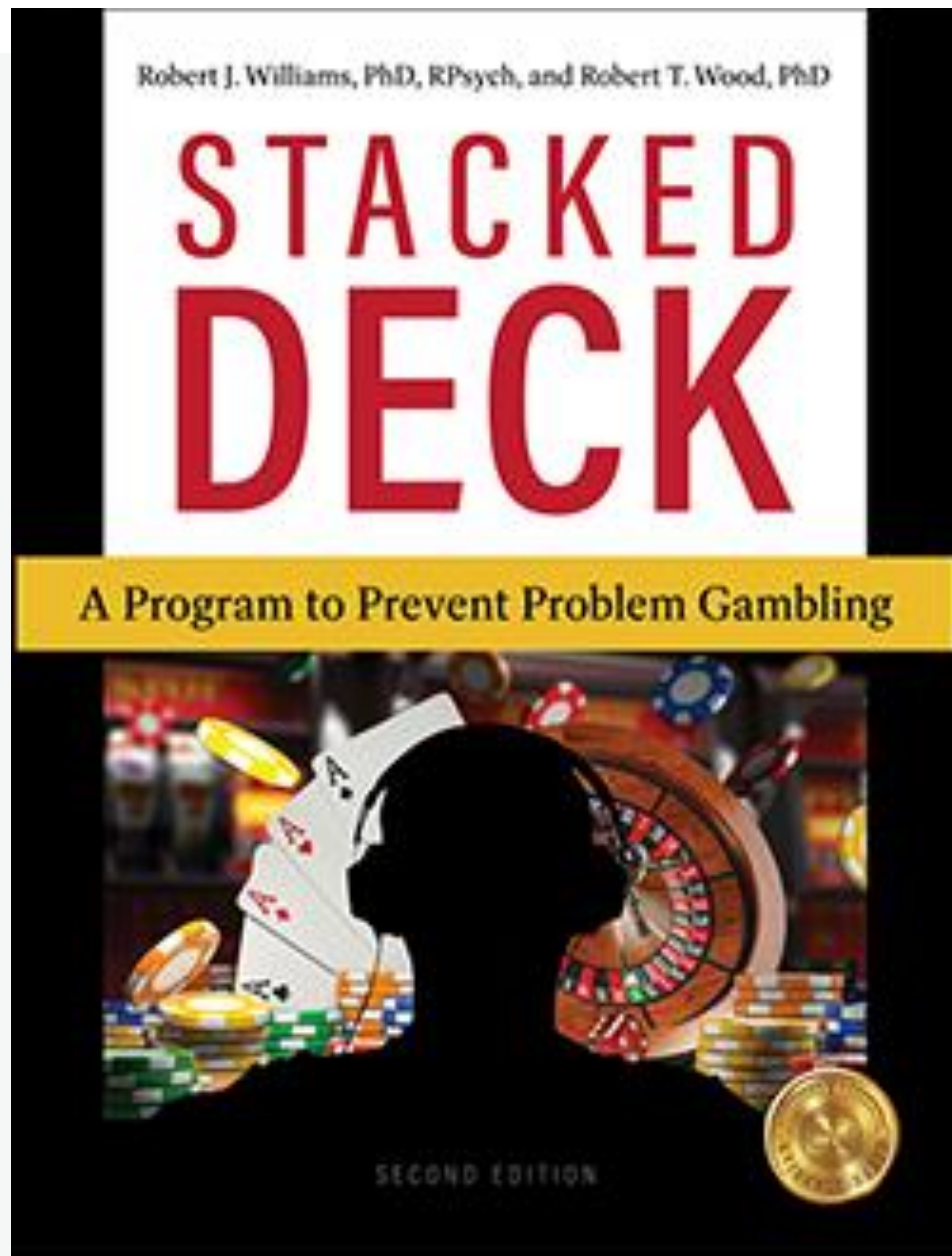
What We Set Out to Accomplish

- Create an educational presentation for students about sports betting and gambling.

- Create a suite of gambling prevention media videos that could be used across campus.

- Engage in geofencing ads to get videos in front of a targeted audience.

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Our Bet is on You, Buckeyes! Learning Outcomes

- Define gambling and sports betting

- Understand the common fallacies of betting to make more responsible decisions around gambling

- Recognize the signs of problematic gambling

- List available resources for support regarding gambling

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RISH – Creating a Culture of Care
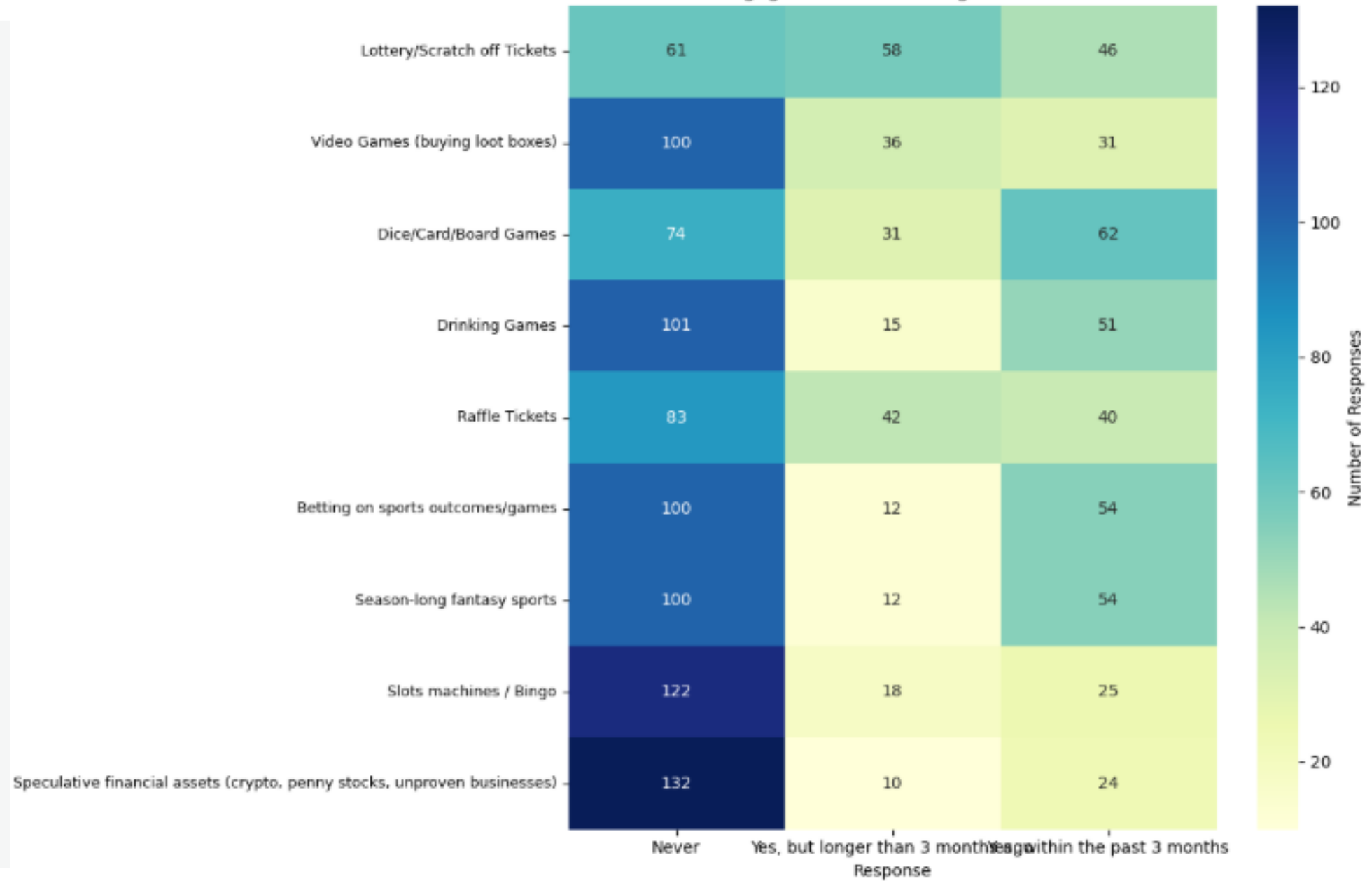
1. *Recognize* the symptoms & related consequences

2. *Initiate* an open, honest conversation

3. *Share* resources

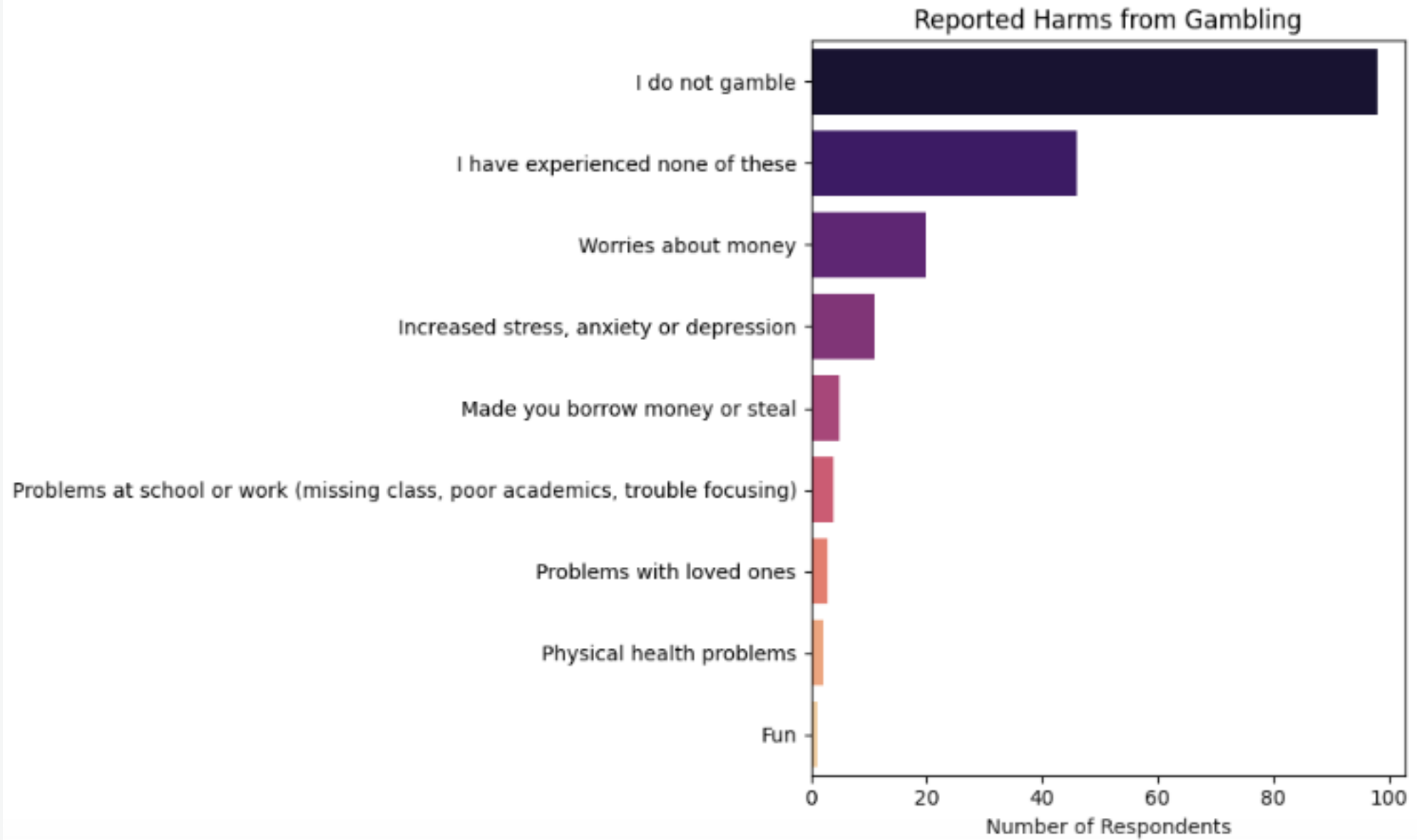4. *Honor* their choice of action, and take care of yourself

Our Bet is on You, Buckeyes

- Piloted presentation in Spring 2025
- Presented 5 times, to about 250 students
  - 1 sorority
  - 1 grad/prof group
  - 3 fraternities
- Future plans for Autumn 2025 include First Year Success Series, STEP programming, reaching out to more Greek communities, and competitive sports teams.

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Engagement in Gambling Activities

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Reported Harms from Gambling

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•***Key Takeaways:***

•Small wins encourage playing more·

•Gambling can be very harmful and spiral into harmful addictions·

•The odds are not in your favor when it comes to gambling·

•The risks of gambling·

•It can come in many forms·

Participant Feedback:

•I like the surveys and interactions

•Helped me become aware of things I wasn't informed on·

•I thought it was great!

•Makes me double think about using sportsbooks. Very effective

•Could have included more personal stories

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THANK YOU