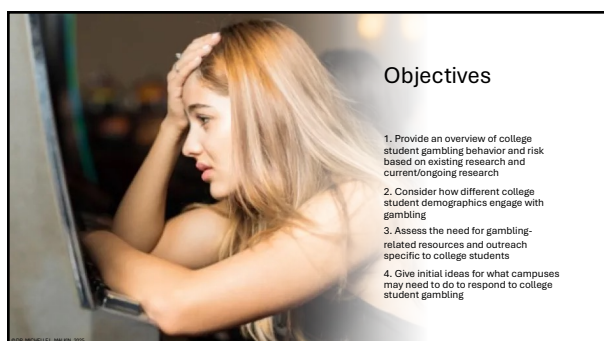
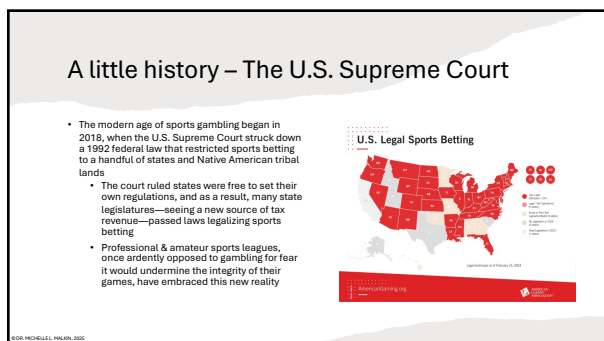




1



2



3

Why should we care?

Most studies indicate that college students gamble with a prevalence rate of approximately 40-60% (Ginley et al., 2013; LeBrie et al., 2010) with males more likely to report frequent gambling (LeBrie et al., 2010; Teeters et al., 2015)

Studies consistently reveal a higher level of disordered gamblers compared to the general population (~7-11%) (Binn-Pike, 2007; Nowak, 2018; Nowak et al., 2014)

4

College Student Gambling (prior research)

- Common forms of college student gambling include:
 - card games
 - sporting events
 - lottery and scratch tickets
 - casino games
 - online gambling - including igaming, online poker, and fantasy sports

"The biggest increases in gambling participation have been among young, educated men...The closer you are to college, the more likely you are to bet sports." – Keith Whyte (former NCPG executive director)


5

More Vulnerable? (prior research)

- Greater Exposure to Triggers... college campuses and adjacent commercial grounds are hotbeds of gambling triggers
- Vulnerable students who want to cheer on their NCAA conference during college football and basketball seasons are inundated with promotional messages to sign-up and place wagers on their favorite teams
- For some, these promotional messages are found on-campus, while others are exposed to triggers within the bars and restaurants located close to campus
- Even those who gather to watch games in campus halls, dorm rooms, frat houses, or in the basements of their parents' homes are exposed by incessant sports betting and gambling ads on TV



6

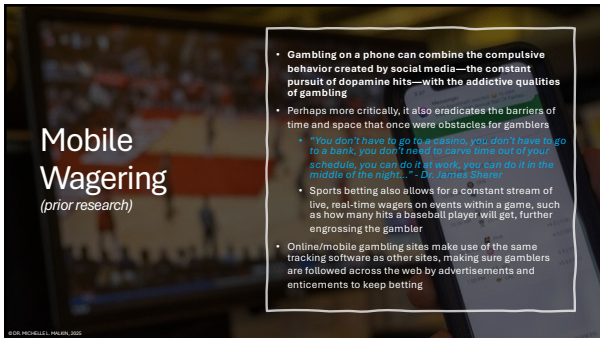


Financial Health Considerations

(prior research)

- Most undergraduate students graduate with close to \$22,000 in debt
- On average, college students spend about \$8,000 annually on discretionary items
- It is estimated that at age 18 only 53% of college students have a credit card compared to 93% at age 22
- The average number of credit cards at age 18 is two and that jumps to five at age 22

7



Mobile Wagering

(prior research)

- Gambling on a phone can combine the compulsive behavior created by social media—the constant pursuit of dopamine hits—with the addictive qualities of gambling
- Perhaps more critically, it also eradicates the barriers of time and space that once were obstacles for gamblers
 - “You don’t have to go to a casino, you don’t have to go to a bank, you don’t need to carve time out of your schedule, you can do it at work, you can do it in the middle of the night...” — Dr. James Sherer
- Sports betting also allows for a constant stream of live, real-time wagers on events within a game, such as how many hits a baseball player will get, further engrossing the gambler
- Online/mobile gambling sites make use of the same tracking software as other sites, making sure gamblers are followed across the web by advertisements and enticements to keep betting


8

College Students & Gambling Disorder

(prior research)

- College students are particularly prone to falling into problem gambling
- “The Five A’s:” (Nowak & Aloe, 2023)
 - The **availability** of betting opportunities
 - social **acceptability** of gambling
 - exposure to widespread **advertising**
 - **access** to spending money, and
 - being at an **age** when young people experiment with risky behavior

9



Prevalence - NCAA Study... *(good research?)*

- N=3,527
- 18 and 22—mostly college students—released in April 2023 by the National College Athletic Association
- ~58% have bet on sports with 4% gambling on sports daily
- ~6% reported losing more than \$500 in a single day
- 27.5% of students have placed a bet on a sports using a mobile app or website
- Respondent sports betting activity is about the same rate for regulated versus unregulated U.S. states
 - This is made possible (in-part) by unregulated sports betting sites and apps that make gambling accessible to students from their mobile devices

BOB MICHELLE, NCAAN, 2023

10

Prior Research States that Gambling Issues among Students may Lead to:

- Feelings of guilt and depression
- Risky sexual behaviors
- Low social support
- Debt
- Suicidal ideation
 - Up to 18% of college students with gambling "problems" attempt suicide

BOB MICHELLE, NCAAN, 2023

11

Gambling Risk *(prior research)*

- ~10% of college students have gambling "problems"
 - Higher than the 2-8% of the U.S. general population estimated to have a gambling problem
- Rates of gambling problems are higher in college students than adults
- Student athletes are prone to gambling and problem gambling
- Students who smoke, drink, or use other drugs have high rates of gambling problems
- Proximity to a casino is associated with rates of gambling problems in college students

BOB MICHELLE, NCAAN, 2023

12

Who is Most 'At Risk' of Developing a Problem? (prior research)

- **Male** college students, who are **achievement oriented**, **risk takers**, weekly or daily user of **alcohol or drugs**, have relatively high **disposable incomes** and were raised by a **parent** who gambles
- Although these are characteristics of the most 'at risk' group, do not automatically exclude a student if they do not match this profile.
- Women are now being aggressively targeted by the gambling industry.



BOB MICHELLE, NIAWAL, 2025

13

Co-occurring Mental and Behavioral Health Disorders of the Average Student (prior research)

- College students already face a number of mental and behavioral health concerns that are connected to academic workloads, other responsibilities, and social pressures
- These issues are dangerous enough on their own, but also co-occur (to varying degrees) with gambling disorder which compounds the attack on student wellness. These mental and behavioral issues include the following:
 - Mental exhaustion
 - Anxiety
 - Depression
 - Stress
 - Substance abuse
 - Eating disorders

BOB MICHELLE, NIAWAL, 2025

14

Added Vulnerability of Student Athletes (prior research)

- Athletes generally have personality traits which can make them more vulnerable to problematic gambling, including:
 - High levels of energy and commitment
 - Motivated by extrinsic rewards
 - Unreasonable expectations of winning despite the odds
 - Competitive spirit – they don't like defeat
 - Distorted optimism
 - Quest for perfectionism
 - Prepared to make sacrifices
 - Often intelligent with high IQ levels

BOB MICHELLE, NIAWAL, 2025

15

Are Athletes Facing Other Sports Gambling Issues?

- College student athletes are facing another risk associated with sports betting... **threats of violence and online harassment against student athletes** from disgruntled sports bettors is occurring at unprecedented levels since the legalization of sports betting in 2018
- The threat has become so serious that the FBI has gotten involved
- The need for mental health support to help student athletes navigate the troubles surrounding problem gambling has never been greater.


© iStockphoto.com/Markus

16




GRPI New Research (2023-24)

- North Carolina's UNC system (12 campuses) (2023)
- Michigan-based University pre (2018) & post legalization (2023)
- National Study (April 2024)

17

NC Study



This study was sponsored by the Division of Mental Health, Developmental Disabilities and Substance Use Services, NC DHHS. No findings were influenced by the financial support of DHHS or any of its employees.

- A survey of undergraduate students across 12 University of North Carolina (UNC) campuses was conducted to better understand the **baseline** gambling awareness, behavior, and risk of college students within the state
- Random sample Undergraduate students from 12 UNC System campuses

N=2,327

Conducted in 2023

Sports wagering went live 3/11/24

18



NC Study: PREVALENCE OF PAST YEAR GAMBLING

- Only forms of legalized gambling in NC at time of the study: lottery, 2 tribal casinos on far west side of the state, fantasy sports (unregulated), sports wagering only within casinos
- 67.3% of respondents gambled (58% on traditional forms of gambling; 36% on emerging forms)
 - Traditional forms = sports, cards, animals, dice, lottery, machines, bingo, stocks
 - Emerging forms = crypto, video games, fantasy sports
- ~22% of respondents gambled at least monthly (with only 13% on traditional forms)
- Significant variations by school

BOB MICHELLE, PHARM, 2025


19

NC Study GAMBLING DISORDER RISK

Recreational gambler = 47.74%
 At-risk gambler = 4.31%
 Problem gambler = 0.75%
 Pathological gambler = 0.85%
TOTAL % at risk or more = 5.92%

If this carries to entire UNC system, a total of **11,403 students** are at-risk of gambling disorder (prior to legalization) and **3,056 NC students ALREADY** are classified as having moderate to severe gambling disorder

****Issue** – BBGS only captures 4.5% of those at risk



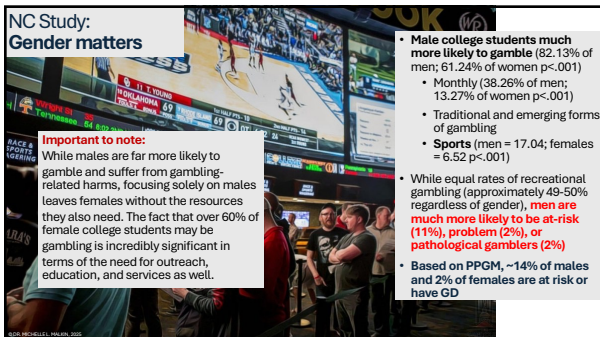
BOB MICHELLE, PHARM, 2025

20

NC Study: Gender matters

Important to note:
 While males are far more likely to gamble and suffer from gambling-related harms, focusing solely on males leaves females without the resources they also need. The fact that over 60% of female college students may be gambling is incredibly significant in terms of the need for outreach, education, and services as well.

- Male college students much more likely to gamble (82.13% of men; 61.24% of women $p < .001$)
- Monthly (38.26% of men; 13.27% of women $p < .001$)
- Traditional and emerging forms of gambling
- Sports (men = 17.04; females = 6.52 $p < .001$)
- While equal rates of recreational gambling (approximately 49-50% regardless of gender), **men are much more likely to be at-risk** (11%), problem (2%), or pathological gamblers (2%)
- Based on PPGM, ~14% of males and 2% of females are at risk or have GD



BOB MICHELLE, PHARM, 2025

21

NC Study: SPORTS WAGERING & ATHLETES



Only **10% of the respondents gambled on sports**, however **student-athletes were significantly more likely to place a sports wager (16.5% of athletes compared to 8.8% non-athletes)**.



Male athletes were significantly more likely to place a sports wager (**16.9% of males compared to 6.6% of females**)

BOB MICHELLE, PHARM.D.

22

NC Study: Where students gamble

- 7% at casino
- 11% at a private party/event
- **2% fraternity/sorority**
- **3% residence hall**
- 11% gas station
- 7% online (pre-legalization)
- 6% mobile phone (pre-legalization)
- Most students gamble at home

23

Michigan-Based Specific Research



Mobile sports wagering went live in 2021
LAWFUL SPORTS BETTING ACT 149 of 2019



Conducted study in 2018 & 2023 at one large MI based University
Does the change in legality matter?
Prevalence
Risk
Campus Issues

BOB MICHELLE, PHARM.D.

24

Michigan Based Specific Research (early analysis) - Demographics

	2018	2023		2018	2023
Gender	N=410	N=145	Race		
Male	43.16	35.83	White	75.53	79.34
Female	56.84	64.17	Black	5.05	3.31
Class			Other/Mixed	19.41	17.36
Freshman	32.56	26.76	Residence		
Sophomore	22.82	20.42	Off Campus	47.48	49.59
Junior	25.9	26.06	On Campus	52.52	50.41
Senior	18.72	26.76	Fraternity/Sorority		
Age			Yes	18.04	10.66
18	15.96	18.18	No	81.96	89.34
19	22.61	15.7	Athlete		
20	22.61	25.62	Yes	4.24	4.38
21	22.24	26.45	No	95.76	95.62
22	9.84	9.92			
23	2.66	1.65			
24	1.6	0			
25 and over	2.39	2.48			

BOR MICHELLE HANSEN, JDS

25

Prevalence – Michigan Based

2023 (N=145)	Monthly or More	Once or Twice	Never			
	2018	2023	2018	2023	2018	2023
Fantasy	9.3	19.18	12.31	17.81	78.39	63.01
Cards	13.89	8.03	19.44	29.2	66.67	62.77
Animals	1.01	0.73	4.03	2.92	94.96	96.35
Sports	9.8	16.06	15.08	13.87	75.13	70.07
Dice	4.53	0.74	8.31	11.76	87.15	87.5
Lottery	15.15	12.5	30.05	39.71	54.8	47.79
Machines	4.81	5.15	22.53	20.59	72.66	74.26
Bingo	0.26	0.74	4.62	5.88	95.13	93.38
Stocks	13.73	13.97	5.7	14.71	80.57	71.32
Skill	10.1	11.76	9.33	11.76	80.57	76.47

BOR MICHELLE HANSEN, JDS

26

Risk – MI Based

	2018	2023	Chi-Sq
At-Risk	20.73	22.07	0.115
Not At-Risk	79.27	77.93	

Type of Gambling by Risk (2023) (N=145)							
Monthly or More		Once or Twice		Never			
	Not At Risk	At Risk	Not at Risk	At Risk	Not at Risk	At Risk	Chi-Sq
Fantasy	13.95	26.67	18.6	16.67	67.44	56.67	1.852
Cards	5.71	15.62	26.67	37.5	67.62	46.88	5.667
Animals	0.95	0	0.95	9.38	98.1	90.62	6.406*
Sports	6.67	46.88	13.33	15.62	80	37.5	31.106*
Dice	0	3.12	9.62	18.75	90.38	78.12	5.406
Lottery	8.65	25	39.42	40.62	51.92	34.38	6.616*
Machines	2.88	12.5	14.42	40.62	82.69	46.88	16.783*
Bingo	0.96	0	5.77	6.25	93.27	93.75	0.318
Stocks	8.65	31.25	12.5	21.88	78.85	46.88	13.913*
Skill	4.81	34.38	6.73	28.12	88.46	37.5	36.015*

BOR MICHELLE HANSEN, JDS

27

Gender findings – MI

- Men much more likely to gamble in the past year in both 2018 & 2023
- In 2018, almost 41% of males and only 11% of females gambled in sports in the past year, whereas in 2023 19.48% of females and 51% of males wagered on sports
- In 2018, 11.79% of females and 34.16% of males were at-risk for gambling disorder, whereas in 2023 11.69% of females and almost 42% of males were at-risk



28

Additional Findings – MI (2023)

- Gender was significantly related to gambling behavior and gambling risk
- Athletic status was significantly related to gambling prevalence in 2018, but not in 2023
- Financial stress was not significantly related to gambling behavior nor gambling risk
- Depression/Anxiety not significantly related to gambling behavior nor gambling risk

29

MI (2028) → MI (2023)



- No significant different in risk between the two cohorts (both are higher than state or national averages for adults)
 - 2018 = 20.73% 2023 = 22.07%
- Gambling **FREQUENCY** is significantly related to **gambling risk**: ($p < .001$)
 - At risk gamblers who gambled less than monthly (23.93%)
 - At risk gamblers who gambled monthly or more in past year (73.5%)
- There is a significant increase in how much \$\$ students are gambling in a single bet
 - 2018 (\$100+) = ~14% 2023 (\$100+) = ~25% ($p < .001$)

30

$$\text{MI (2028)} \longrightarrow \text{MI (2023)}$$

Other interesting findings

- Fantasy Sports wagering also significantly increased
- Substantial increase in daily stock trading
- Athletic status was significantly related to gambling prevalence in 2018, but not in 2023
- Alcohol use was related to gambling risk in 2018 & 2023 with moderate to severe alcohol use risk related to gambling risk, however legality of gambling did not impact this significance (drug use was not significant)
- In logistic regression, we find that **overall legality (differences between 2018 and 2023) did not impact risk)**
 - **Most important items related to gambling risk: ($p < .001$)**
 - Wagering on sports monthly or more
 - Wagering on lottery monthly or more
 - Wagering on skill games monthly or more
 - Any wagering on slots/video gaming terminals
 - Male gender
 - **Non-significant** (fantasy sports, cards, animals, dice, bingo, stocks, class level, race/ethnicity, Greek affiliation, legalization)

31

National Study

- N=218
 - Undergraduate students (bachelors)
 - **Representative sample from ~4,000 national study**
 - **2 data sources** – no significant difference between sources
- **~79% gambled in past year**
- **41% bet on sports**



© 2009 MICHAEL M. KLIN 2009

32

National College
Student Sample –
gender matters

- 84.62% of males; 71.3% of females gambled in past year ($p < .05$)
- 54.81% of males; 40% of females gambled at least monthly ($p < .05$)
- 52.88% of males; 30.7% of females wagered on sports ($p < .001$)



© DR. MICHELLE L. MALKIN, 2001

33

National College Sample – does legality matter?



- Sports Wagering Legal
 - **Legality does not matter** on whether college students wagered on **online/mobile** sports (42.48% legal state v 40% not legal state)
 - **Legality does not matter** on whether college students wagered on **in-person** sports (40.16% legal state v. 42.86 not legal state)
- # of legalized forms of gambling in the state
 - **Legality does not matter** on gambling within the past year on the number of forms of gambling that are legal in the state (0-13 forms) ($p=.99$)
 - **Legality does not matter** on gambling monthly or more based on the number of forms of gambling that are legal in the state ($p=.14$)

© DR. MICHELLE WALSH 2025

34

So, what does this all mean?

- Overall, looking within a single state pre-legalization, **students are already gambling**, including on sports and with their mobile devices/online
- Looking at a single state, pre/post legalization, **prevalence of gambling increases, while risk stays about the same**
 - **Gambling frequency is related to gambling risk**
 - Students are spending more \$\$ gambling
- Looking nationally by state, **legality does not seem to matter**
- All of this is clouded by gender of college students, where more females attend college. **When looking specifically at gender, male college students gamble more often and are at higher risk of GD.**

© DR. MICHELLE WALSH 2025

35

Policy Implications

- Whether gambling is legal or not, **college students are engaging in all types of wagering**
- **Legalization allows for regulation and resources**
 - Education
 - Outreach/Screening
 - Treatment
 - Research

So, has legalization led to these changes?



© DR. MICHELLE WALSH 2025

36

Are Colleges/Universities Prepared?
(historical research)

- Although all colleges have policies for alcohol and other drugs, **less than one in four colleges have policies on gambling**
- ~15% of college counseling center websites post information about problem gambling
- ~7% of college administrators have received information about gambling

*"Campuses may be slow to appreciate the problem in part because **gambling addictions aren't as visible as other disorders...** Without the same signs of erratic behavior or weight loss that can alert peers or professors to a substance abuse disorder, even close friends or partners of gambling addicts can miss the problem. In many cases, when college counseling services do become aware of problem gambling, it's often because the student has other, more obvious **mental health issues.**" Jim Lange (Executive Director of the Higher Education Center for Alcohol and Drug Misuse Prevention and Recovery, Ohio State University)*

37

NC Study: CAMPUS ISSUES (12 campuses)

Over **60%** of students perceive gambling to be at least a minor issue on their campus

Campus' had large variances, with those at UNC Asheville most concerned (closest to a casino & large population of Native American and other racial minority students)

Education concerning gambling behavior and risk and screening for gambling risk are **practically non-existent** on college campuses (less than **1%** of students reported receiving any education or ever being screened)

The vast majority of students (over **97%**) **do not know** if there is a **gambling behavior policy** at their campus

38

MI Based Campus Questions

Gambling a Problem on Campus		2018 (pre) (N=379)	2023 (post) (N=131)
Yes		57.52%	89.24%
No		42.48%	0.76%
Chi-Sq		78.165*	
Received Gambling Education on Campus (2023 only)			
Yes			3.94%
No			96.06%
Screened for Gambling on Campus (2023 only)			
Yes			0.78%
No			99.22%
Knowledge of Campus Policy on Gambling (2023 only)			
Yes			5%
No			95%

39

What Should Happen?

- **Early intervention education is critical** to fighting against college students facing gambling-related harms
 - Ideally, this should begin in high-school so that they are better prepared for exposure in college, although post-secondary institutions cannot expect this to occur
 - Instead, colleges and universities should integrate problem gambling awareness education into student onboarding programs
- Of equal importance, is for universities to invest in support systems so that they can offer students immediate access to online counseling and therapy services for problem gambling, in addition to the common mental/behavioral health concerns they already contend with

40

CAMPUS OUTREACH

- National screening day
- Campus specific screening days – one in fall, one in spring

41

**Emerging Adult Gambling Screen

Issue: the BBGS only captures 25% of those between 18-24 experiencing gambling-related harms and potentially at risk of gambling disorder:

- 25.6% of at-risk
- 37.9% of problem gamblers
- 86.4% of pathological gamblers

Developing the Emerging Adults Gambling Screen

- 4 question short form
- 7 question long form
- *Currently under testing*
 - So far, captures:
 - 47% of at-risk [working to add 1-2 questions to capture higher %]
 - 82.8% of problem
 - 97.5% of pathological

42

Education – the Gambling Blueprint

- Peer-to-peer wellness-based campus curriculum
- Module based for different audiences, including
 - First time education
 - Student-athletes
 - 20 minute quick takes
 - 50 minute classes
 - And more!

Several activities that can be run with student audiences to help them in gambling-related education

- Assessing risk level
- Scenario based gambling behavior (lower risk/risky)
- Financial wellness



Learn more about the curriculum at a preconference session during the National Council on Problem Gambling conference in Ohio (July 2025)

DR. MICHELLE HAZEN, 2025

43

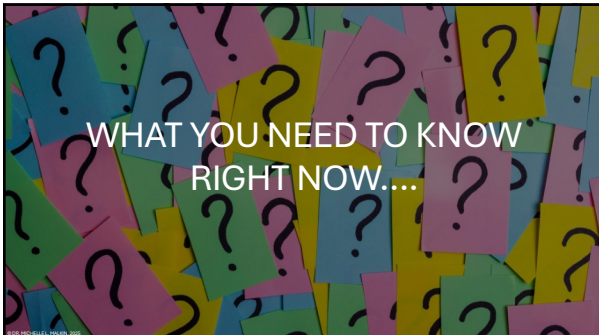
Treatment

State-based treatment providers & services

Campus-based treatment opportunities

DR. MICHELLE HAZEN, 2025

44



WHAT YOU NEED TO KNOW RIGHT NOW....

DR. MICHELLE HAZEN, 2025

45



Warning Signs to Watch for in College Students

- Frequent unexplained absences from work, school, family obligations or other important events
- Unusual interest in newspapers/magazines about stocks, sport scores and/or point spreads
- Excessive phone, text or internet use
- Problems with personal relationships, or withdrawal from family & friends
- Discomfort talking about money or financial management
- Lying about whereabouts; missing household or personal items; the sudden need to borrow money
- Unusual charges on credit card statements
- Visible changes in behavior (severe mood swings, personality or hygiene changes, disturbed sleep or eating patterns) or other symptoms of depression


46

Questions and Behaviors to Think About

- 1) Thinking or planning their next gambling venture
- 2) Skipping school, work or other activities because they were gambling
- 3) Gambling just to win money back that they previously lost
- 4) Losing sleep from thinking or obsessing about gambling issues
- 5) Lying about their gambling behavior
- 6) Making repeated, unsuccessful attempts to stop gambling
- 7) Exhibiting signs of depression
- 8) Gambling in order to make their financial obligations

If the student answers "Yes" to any of these questions, consider seeking assistance from a professional regarding the gambling behavior.

47



What to do if you are associated with students/college(s)

- **Be Proactive!**
 - If you observe possible signs of a problem for yourself or your college student, seek help and support from various resources.
- Have the conversation!
 - Talk with college students about gambling and its risks
- Encourage students with concerns to call the gambling helpline
- Help those with problems get treatment
 - Treatment for gambling works, and college students respond well to brief gambling interventions
- Ask college administrators to raise awareness of and address gambling on campuses

48

More ways to help (for parents/friends/others)

- **Evaluate** how much the student has been exposed to gambling by family members & peer groups
- **Educate** yourself on the warning signs and be aware of changes in behavior that might indicate a problem
- **Share** your concerns with the student and help them set gambling limits
- **Avoid** lending money or indirectly financing (credit card) any college student's gambling
- **Avoid** covering up or taking care of the problem by paying off debts.
- **Seek** help/guidance for yourself in dealing with the problem as an affected other

49

Some useful references:

Barnes, G. M., White, J. W., Hoffman, J. H., & Tobolski, M. C. (2016). Comparisons of gambling and alcohol use among college students and noncollege young people in the United States. *Journal of American College Health*, 65(5), 459-463.

Bian, P., & Loken, M. (2007). Disordered gambling among college students: A meta-analytic synthesis. *Journal of Gambling Studies*, 23, 175-193.

Chen, C., & Piquero, A. (2008). Neurodevelopment, impulsivity, and adolescent gambling. *Journal of Gambling Studies*, 24(1), 61-84.

Epstein, D., & Stewart, R. (2004). Gambling and other risk behaviors on university campuses. *Journal of American College Health*, 53(4), 140-145.

Gilbert, J., & White, J. (2008). Prevalence and extent of on-campus college gambling. *Journal of Gambling Studies*, 24, 171-175.

Gray, H. K., Wilson, J. P., Bugeis, J. L., Spence, J. L., Mayers, A. W., & Pearson, G. D. (2015). College student beliefs about warning: An evaluation of the adolescent gambling experiences survey. *Journal of Gambling Studies*, 31, 149-171.

Gratwick, A. L., Smeets, W. L., Kuhl, J., & Sher, K. J. (2008). Longitudinal patterns of gambling activities and associated risk factors in college students. *Addiction*, 103(7), 1219-1230.

Hwang, J.-H., Hwang, J.-Y., Chon, H.-J., & Park, J.-S. (2017). A national study on gambling among US college students' attitudes. *Journal of American College Health*, 66(2), 80-89.

Labadie, A., Bialle, A., Lefebvre, A., & White, J. (2016). Correlates of college student gambling in the United States. *Journal of American College Health*, 65(2), 124-132.

Labadie, A., Bialle, A., & White, J. (2016). Prevalence of pathological gambling and related problems among college students in the Quebec metropolitan area. *Canadian Journal of Psychiatry*, 61(5), 284-294.

Levine, M. R., Cnaan, J., Fink, M. L., Beach, M., White, C. M., Rubenstein, G., et al. (1991). Gambling and pathological gambling among university students. *Addictive Behaviors*, 16, 517-527.

McIntyre, D., & Whelan, P. (2012). Assessing severity of problem gambling: A review of the literature. *International Gambling Studies*, 12, 1-15.

National Collegiate Athletic Association. Don't Bet on It. Retrieved January 17, 2011, from www.dontbetonit.org

Nelson, T. C., LaBrie, R. A., Lefebvre, A., Bialle, M., Chabot, H., & Whelan, P. (2017). Sports betting and other gambling in athletes, fans, and other college students. *Research Quarterly for Exercise and Sport*, 88(2), 271-283.

Nevak, D. C. (2016). A meta-analytic synthesis and examination of pathological and problem gambling rates and associated risk factors among college students, 1987-2016. *Journal of Gambling Studies*, 32(2), 485-498.

Nevak, D. C., & Allen, N. M. (2016). The prevalence of pathological gambling among college students: A meta-analytic synthesis, 2000-2013. *Journal of Gambling Studies*, 32, 819-843.

Petrillo, P., Bhatt, J., Shen, L., Bhat, L., Galt, J., Tucker, D., et al. (2011). Compulsive alcohol use and other high-risk behaviors among college students. *American Journal on Addictions*, 120(1), 14-20.

Perry, J. M., Whitbeck, L., & Hendershott, D. W. (2008). Brief risk assessment for college student problem gambling. *Addiction*, 103(8), 1248-1258.

Rockey, D., Bialle, A., Chabot, H., & White, J. (2016). Gambling by Greek-affiliated college students: An association between affiliation and gambling. *Journal of College Student Development*, 60(1), 70-87.

Sarraf, A., Bialle, A., Chabot, H., & White, J. (2016). Self-injury, substance use, and associated risk factors in a multi-campus probability sample of college students. *Psychology of Addictive Behaviors*, 63(1), 119-128.

Shaffer, H. J., Bialle, A., Labadie, A., & White, J. (2016). The epidemiology of college student and gambling-related issues. *Addictive Behaviors*, 63(1), 1-11.

Shaffer, H. J., Bialle, A., Labadie, A., & White, J. (2016). The national history of college gambling from age 18 to 28. *Journal of American College Health*, 65(2), 124-132.

Shaffer, H. J., Bialle, A., Labadie, A., & White, J. (2017). Gambling as a emerging health problem for college students. *Journal of American College Health*, 66(2), 70-83.

Tatarski, J. B., Gilman, M. E., Wilson, J. P., Mayers, A. W., & Pearson, G. D. (2015). The moderating effect of gender on the relation between experiences and gambling frequency among college students. *Journal of Gambling Studies*, 31, 179-193.

Wassenaar, J., Wilson, J. P., Mayers, A. W., & Pearson, G. D. (2007). Gambling behavior of student athletes and a student cohort: what are the odds? *Journal of Gambling Studies*, 23(1), 13-24.

White, J. (2016). College student on-campus: More problems for student athletes. *Addictive Behaviors*, 65(2), 124-132.

White, J. M., & Bialle, A. (2016). The prevalence of problem gambling among US adolescents and young adults: results from a national survey. *Journal of Gambling Psychology*, 32(2), 119-128.

Whitbeck, L. M., Jr., Wilson, J. P., Watt, R., Mayers, A., McCauley, C., & Leuten, J. (2007). Perceived availability, risks, and benefits of gambling among college students. *Journal of Gambling Studies*, 23(2), 285-298.

50

Questions?

Dr. Michelle L. Malkin
Director
Gambling Research & Policy Initiative
East Carolina University
malkim20@ecu.edu

51