




TEXAS TECH UNIVERSITY  
Department of Community,  
Family & Addiction Sciences



OAPGG  
Oklahoma Association on Problem Gambling & Gaming

## 2022 Gambling Prevalence Study: Findings From Oklahoma and Missouri

Presentation for the 2023 Midwest Consortium on Problem Gambling and Substance Abuse

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### Overview of Presentation

1. Gambling Context and Study Purpose
2. Summary of Methods
3. Primary Findings
4. Summary of Findings
5. Recommendations and Future Directions
6. Emerging Areas of Concern
7. Questions


*Collaborative Partnership among:*



**Kansas City Port Authority Problem  
Gambling Fund Advisory Committee**



**TTU Graduate Students:**  
Lauren Lewis & Uibin Lee



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### References to NCPG's NGAGE Study



**Conducted in 2018**  
**Includes 3,000 US adults**

**Serves as a reference point**

National Survey on Gambling  
Attitudes and Gambling Experiences



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### What is gambling?

**Definition:** *Gambling* is placing something of value at risk on the chance of winning something of greater value

**Three Elements:** (1) Wager, (2) Chance, (3) Reward

**From NGAGE Study:** 73% of US adults gamble annually



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### Gambling Disorder in the United States, and within Missouri and Oklahoma



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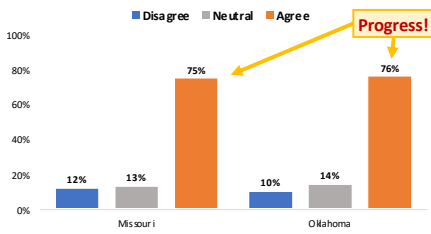
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### From NGAGE Study (Missouri & Oklahoma): "Addiction to gambling is a lot like addiction to drugs or alcohol"



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### A note on Gambling Disorder

#### Clinical Diagnosis (ICD-11 or DSM-5)

- Persistent and recurrent gambling behaviors leading to clinically significant impairment or distress
- Includes evidence of tolerance, conflict, chasing, preoccupation, withdrawal, deception, etc.
- Self-report is not a substitute for a clinical diagnosis



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### DSM-5 Criteria

1. Need to gamble with increasing amounts to achieve the desired excitement.
2. Restless or irritable when trying to cut down or stop gambling.
3. Repeated unsuccessful efforts to control, cut back on or stop gambling.
4. Frequent thoughts about gambling (such as reliving past gambling or planning future gambling).
5. Often gambling when feeling distressed.
6. After losing money gambling, often returning to get even. (This is referred to as "chasing" one's losses.)
7. Lying to hide gambling activity.
8. Risking or losing a close relationship, a job, or a school or job opportunity because of gambling.
9. Relying on others to help with money problems caused by gambling



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### Prevalence of Gambling Disorder

**United States:** <1% to 2%

*\*\*\*Prevalence rates appear to be increasing in recent state-wide surveys suggesting a need to update the national estimate\*\*\**

**New Jersey: 6.1%**

**Illinois: 3.8%**

*The increase in prevalence follows the legalization of sports betting and the expansion of online gambling*



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**Outcomes (or correlates)**

**Gambling Disorder co-occurs with:**

- Depression / anxiety
- Suicide and self-harm
- Relational conflicts
- Criminal behaviors
- Substance use
- Employment issues

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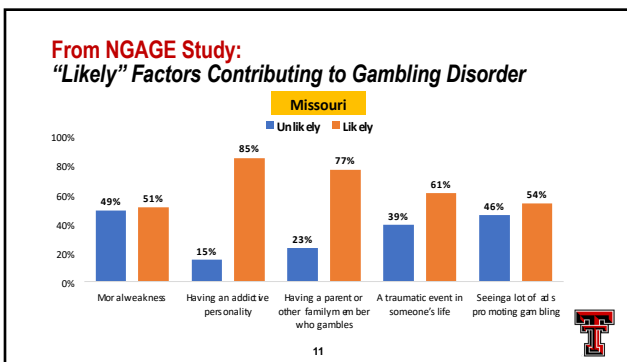
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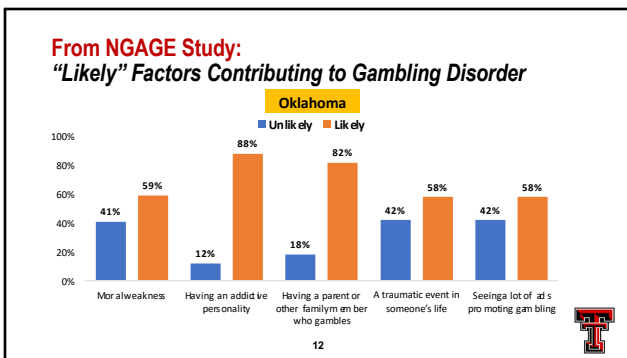
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**Awareness and use of resources for Gambling Disorder among those who gamble**

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**Two Studies on Prevention / Awareness Campaigns**

Can Advertising Increase Awareness of Problem Gambling? A Statewide Survey of Impact

**2003 paper**  
Psychology of Addictive Behaviors

Lisa M. Najavits  
Harvard Medical School and McLean Hospital

Lorraine D. Grymala and Betty George  
North American Training Institute, Duluth, Minnesota


RESEARCH ARTICLE

*"When the Fun Stops, Stop": An analysis of the provenance, framing and evidence of a 'responsible gambling' campaign*

**2021 paper**  
PLOS ONE

May Cl van Schalkwyk<sup>1\*</sup>, Naeem Maani<sup>1,2,3</sup>, Martin McKee<sup>1</sup>, Samantha Thomas<sup>4</sup>, Cécile Khai<sup>1,2</sup>, Mark Petticrew<sup>1,2</sup>

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**Gambling Disorder Resources**

- Limited research on awareness of and use gambling disorder resources.
- There is a need for more research on the effectiveness of prevention ads, gambling helplines, Gamblers' Anonymous, and treatment (in general).

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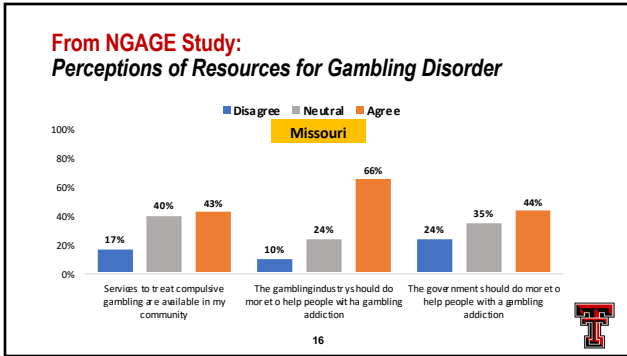
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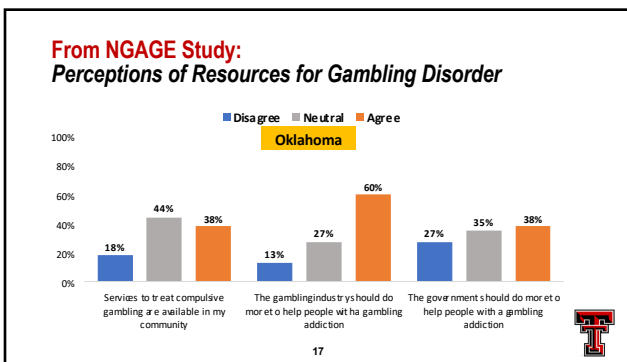
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**In summary...**

- Gambling is a **popular** recreational activity, and the vast majority of adults gamble at least once annually.
- Gambling disorder is a serious mental health concern.
- Prevalence rates of gambling disorder have been increasing in recent state-wide assessments.
- Prevalence of players with knowledge of resources for gambling disorder remains largely unknown.

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## The 2022 Oklahoma and Missouri Gambling Prevalence Studies

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### Purpose and Objectives

1. To assess the prevalence of gambling participation among Oklahoma and Missouri adults
2. To assess the prevalence of gambling disorder among Oklahoma and Missouri adults, as delineated in the DSM-5.
3. Examine demographic differences for gambling participation and gambling disorder among Oklahoma and Missouri adults.
4. To assess the awareness and use of gambling disorder resources and support among Oklahoma and Missouri adults

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### Methods

- A third-party marketing research firm conducted the data collection
- Data from 5,578 OK adults and 5,094 MO adults were collected during the 2022 Summer via a non-probabilistic sampling procedure
- Only those reporting gambling engagement during the past year were allowed to complete the survey
  - Demographic data was still collected from those who did not gamble.

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**It is common practice to heavily vet data from online surveys to ensure only valid responses are used in primary analyses.**



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**Methods (continued)**

- Data were screened for the following issues:
  - Incomplete demographics*
  - Evidence of socially desirable responding*
  - Inconsistent response to gambling participation items*
  - Incomplete gambling disorder self-report*

**Final Samples include  
4,035 OK adults and 3,259 MO adults**



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**Methods (continued)**

- Data was weighted by several demographic variables:
  - Sex** (male, female)
  - Age Group** (under 25, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, and 85+)
  - Ethnicity** (i.e., Hispanic, Latino, or Spanish heritage [yes, no])
  - Race** (White, Black, American Indian, Asian, Hawaiian or Pacific Islander, Two or more races, and Other race/Prefer not to say)
  - State County**
- The weighting procedure largely corrected for all of the imbalances between the targeted percentages based on Census data and observed.



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**State Populations**  
*(2022 Census Data)*

<p><b>Missouri</b></p> <p><b>Total Population: 6,177,957</b></p> <p>Total Adults: 4,794,095</p> <p><u>Every 1% is about 47,941 adults</u></p>	<p><b>Oklahoma</b></p> <p><b>Total Population: 4,019,800</b></p> <p>Total Adults: 3,051,028</p> <p><u>Every 1% is about 30,510 adults</u></p>
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**Sample Demographics**



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**Gambling Frequency Categories**

**Gambling Frequency**

- Defined as the maximum frequency reported across all activities the player endorsed.
- Three categories were created based on methods from previous studies:
  1. **Those who do not gamble**
  2. **Low Frequency** [Less than monthly]
  3. **Moderate Frequency** [Monthly]
  4. **High Frequency** [Weekly or more]

**Example of coding process:**

If an individual buys lottery tickets weekly, plays casino games monthly, and bets on sports less than monthly. This person would be categorized as High Frequency player based on the frequency that they purchased lottery tickets during the last year.



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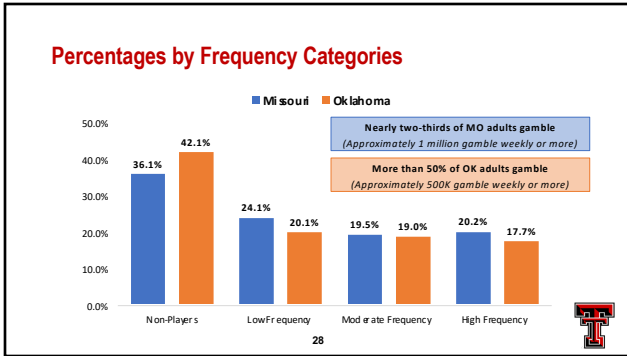
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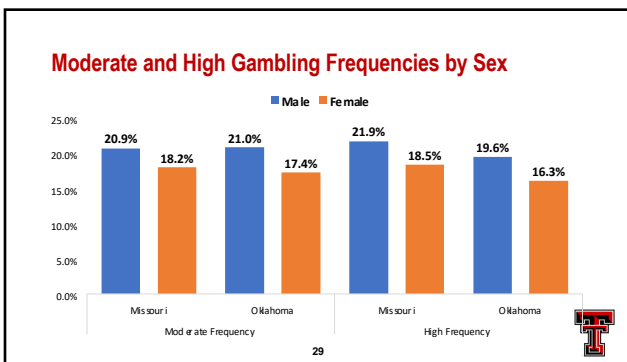
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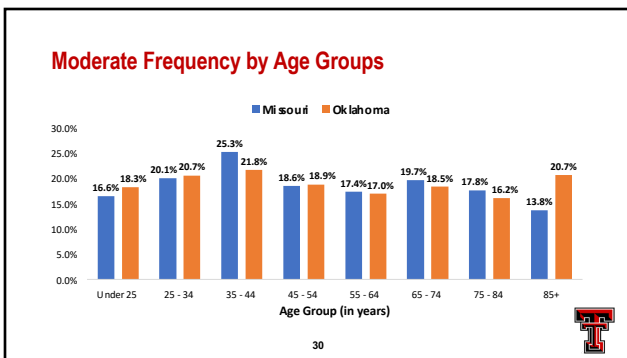
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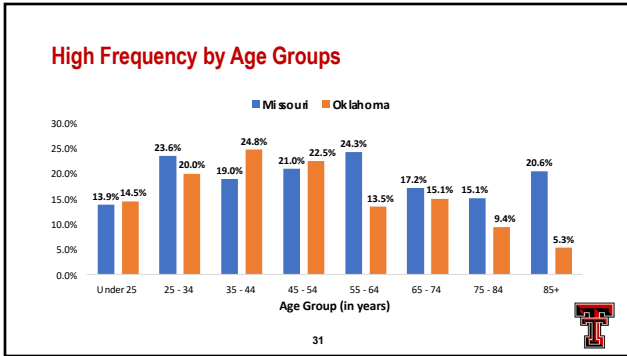
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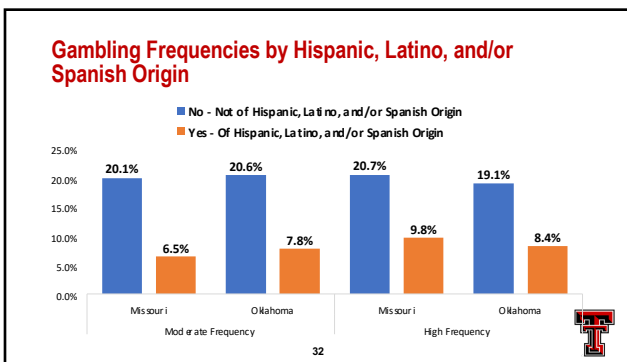
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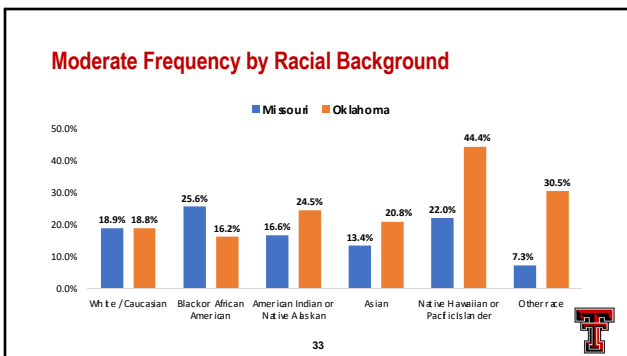
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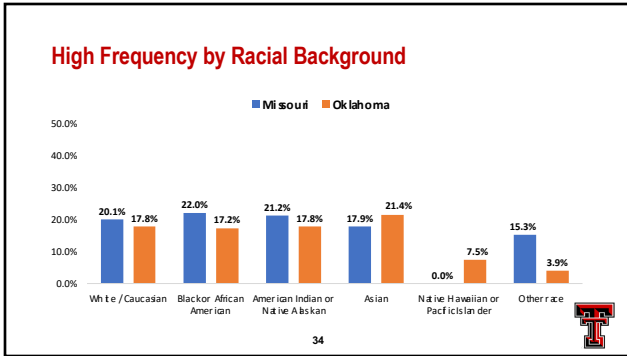
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### Gambling Disorder Classification

Defined by the number of DSM-5 criteria that were self-endorsed.

Four categories were created based on recommendations from the DSM-5:

1. **Those who do not gamble**
2. **No Criteria** [Those who did not endorse any criteria]
3. **At-Risk** [Those who endorsed 1-3 criteria criteria]
4. **Gambling Disorder** [Those who endorsed 4+ criteria]

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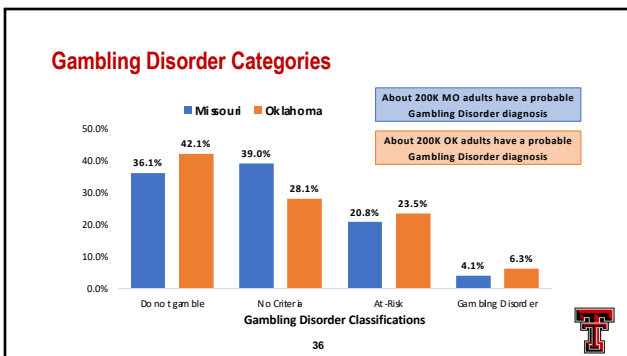
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**Data from 2020 Reports from SAMHSA**  
*(Both state reports reference data from 2017-2019 among individuals 12+ years)*

Missouri	Oklahoma
Alcohol Use Disorder: 5.1%	Alcohol Use Disorder: 6.1%
Opioid Use Disorder: 0.5%	Opioid Use Disorder: 0.8%
Marijuana Use Disorder: 1.4%	Marijuana Use Disorder: 1.0%

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**Links to these 2020 Reports from SAMHSA**

Missouri	Oklahoma
	

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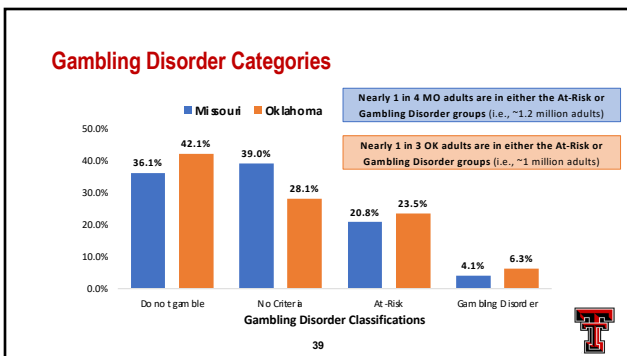
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# Demographics of At-Risk and Gambling Disorder

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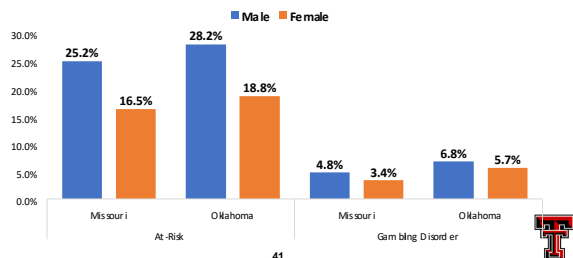
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## At-Risk and Gambling Disorder by Sex



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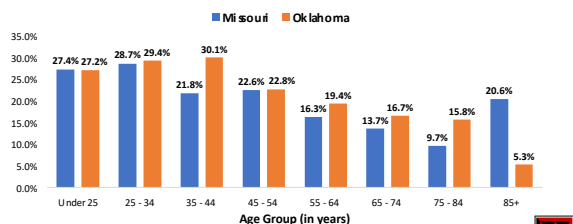
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## At-Risk by Age Groups



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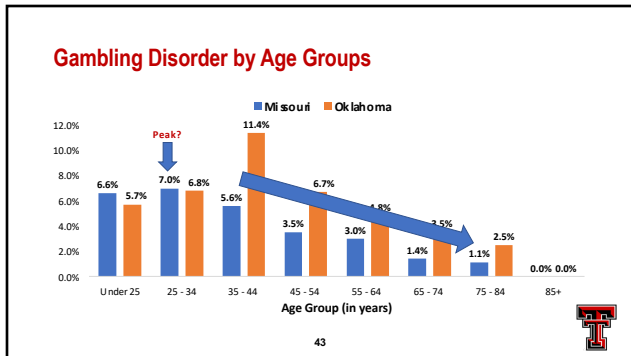
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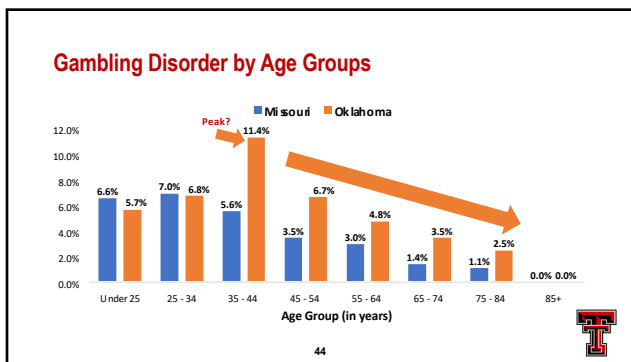
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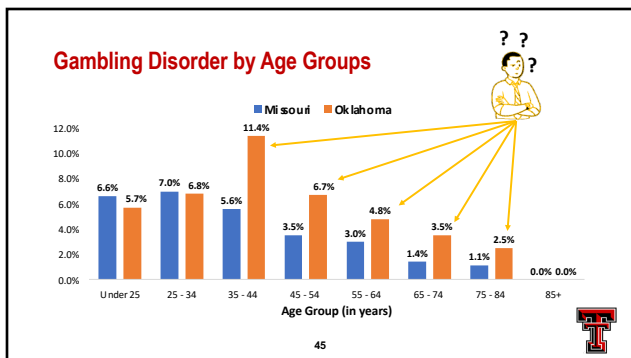
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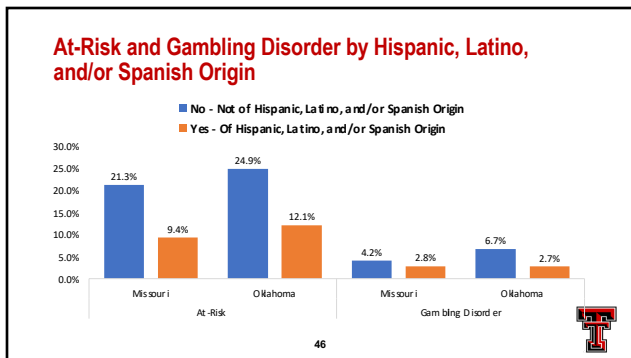
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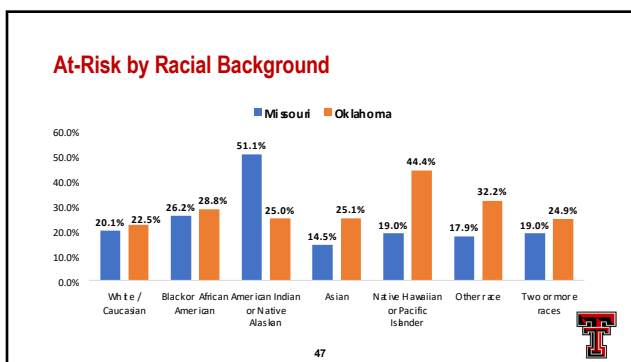
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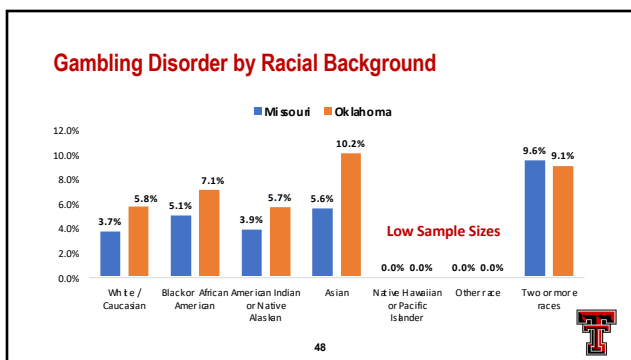
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### Moving forward:

Only data from those who gambled during the past year were used in the following analyses

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### Gambling Frequency by Gambling Disorder Categories

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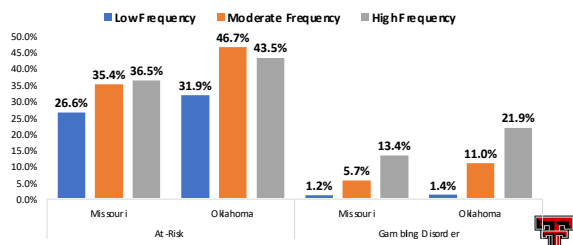
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### Gambling Frequencies by either At-Risk or Gambling Disorder (among those who gamble)



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# Gambling Activity Engagement

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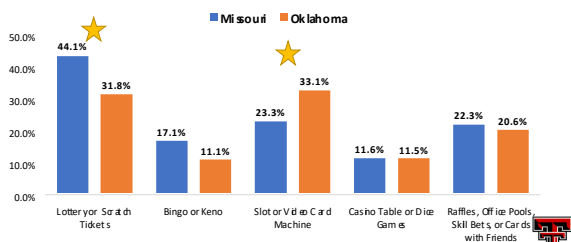
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## Top Five Gambling Activities



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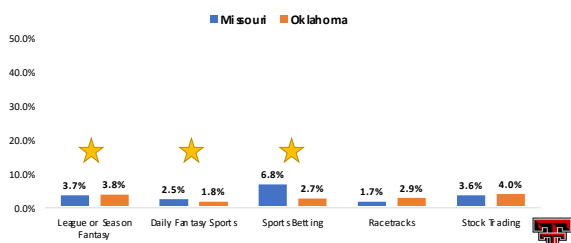
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## Bottom Five Gambling Activities



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What percentage of those playing different gambling activities are endorsed 4+ criteria (i.e., gambling disorder)?

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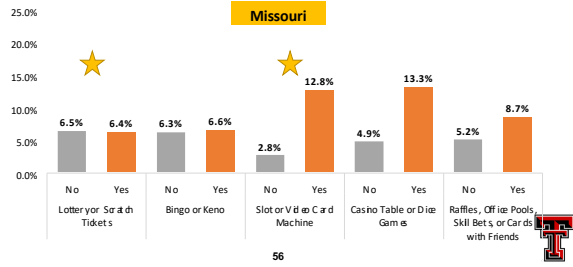
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Prevalence of Gambling Disorder among those engaging in (or Not) the Top Five Gambling Activities



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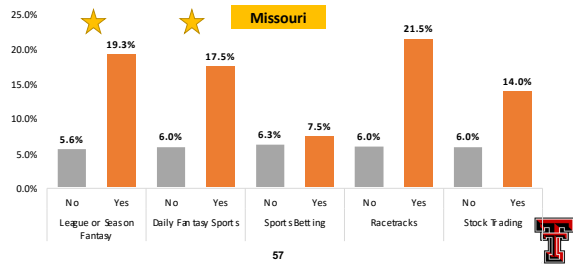
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Prevalence of Gambling Disorder among those engaging in (or Not) the Bottom Five Gambling Activities



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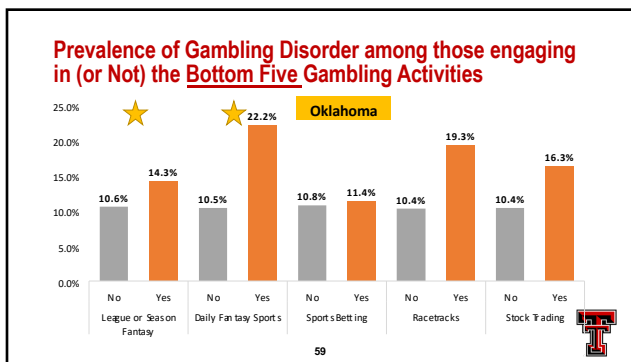
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## Why do people gamble?

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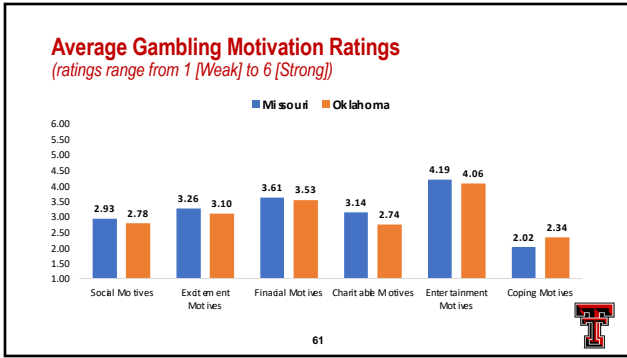
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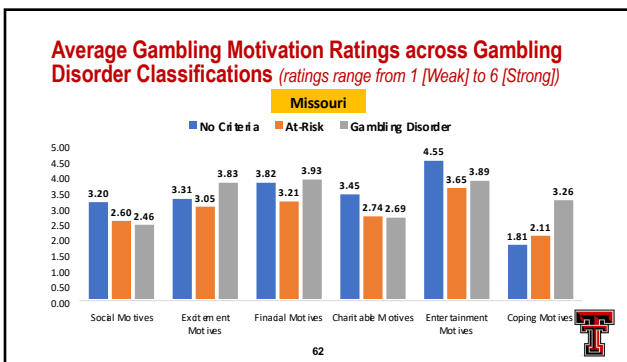
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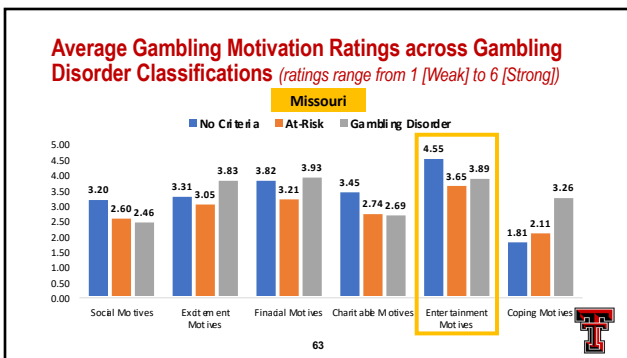
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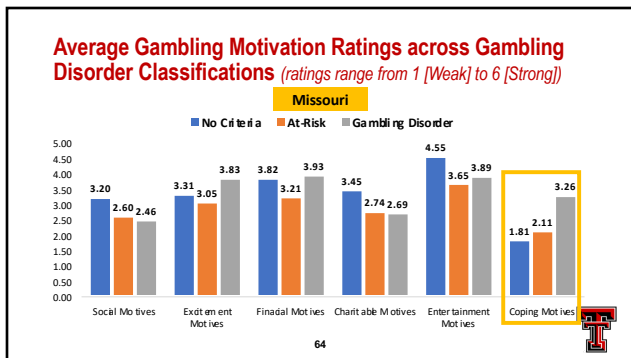
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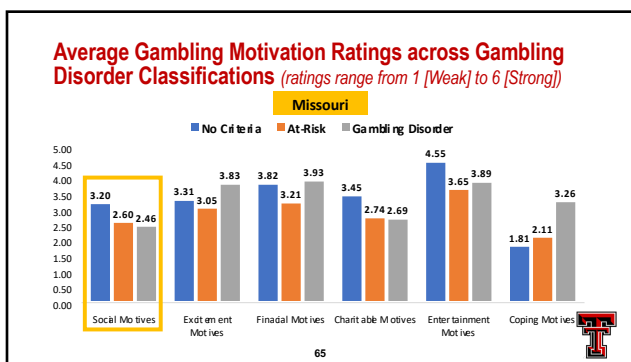
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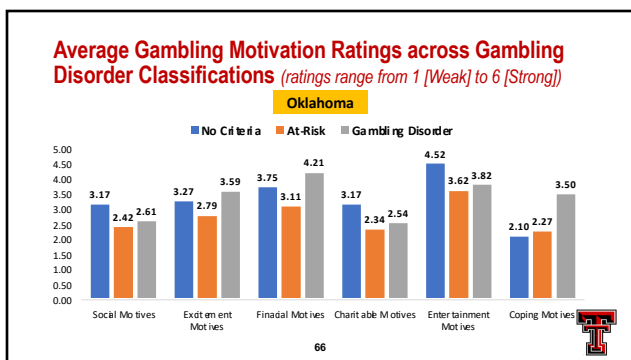
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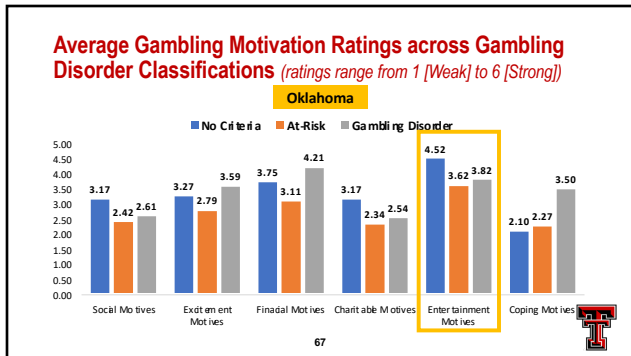
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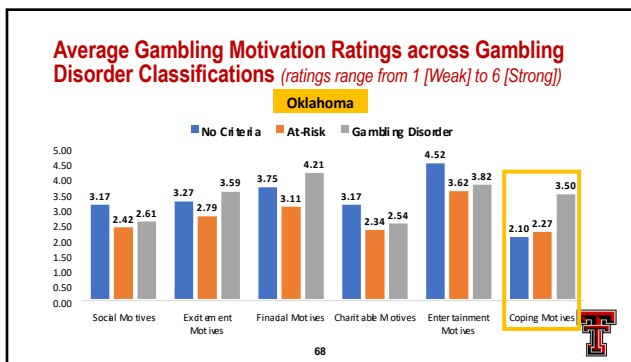
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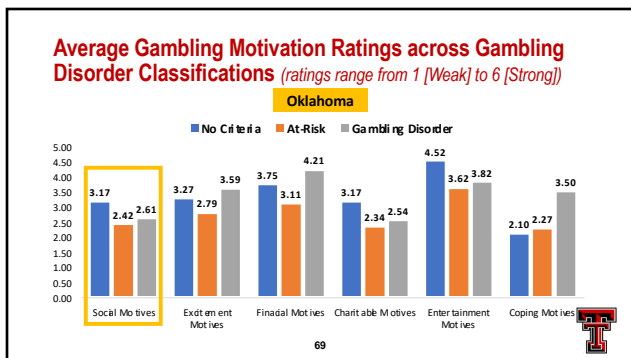
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### What proportion of those who gamble endorse maladaptive beliefs?



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### Maladaptive Gambling Beliefs

• Gambler's Fallacy Belief:

*After losing many times in a row, are you more likely to win?*

MO: 12.2% endorsed

OK: 12.2% endorsed

• Belief in a System or Strategy:

*Can you win more if you use a certain system or strategy?*

MO: 12.0% endorsed

OK: 16.8% endorsed



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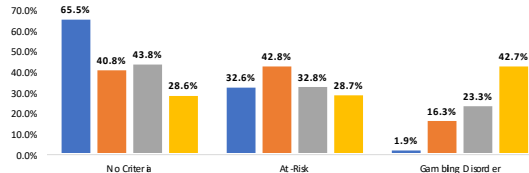
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### Maladaptive Gambling Beliefs and Gambling Disorder

Missouri

■ No Maladaptive Beliefs    ■ Only Gambler's Fallacy  
■ Only Systems or Strategies Belief    ■ Endorsed Both Maladaptive Beliefs



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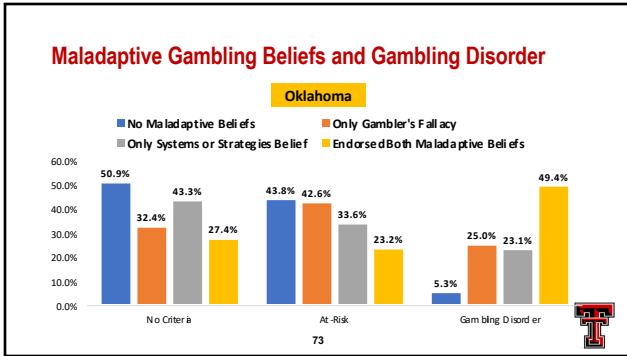
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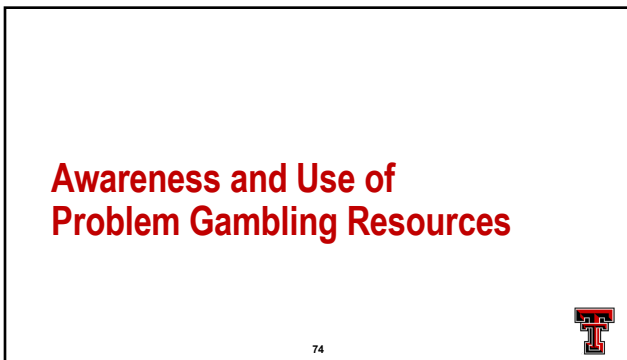
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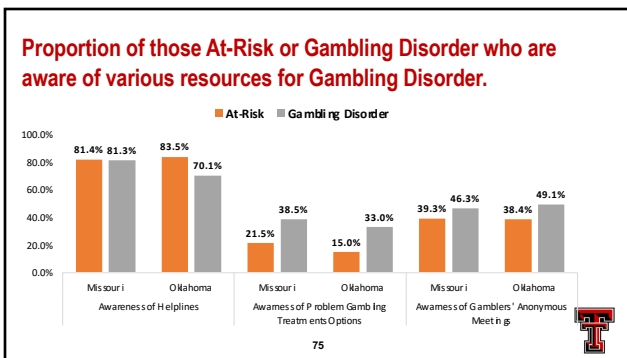
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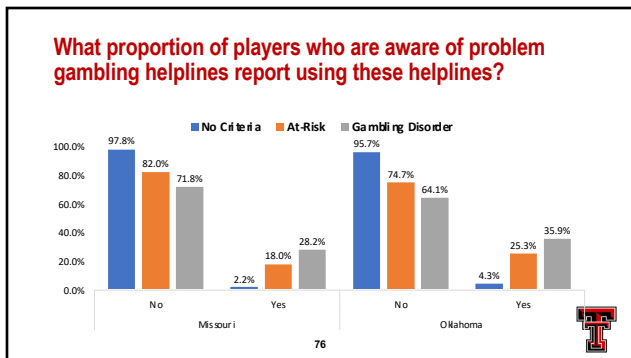
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### Why is gambling disorder critically important to address?

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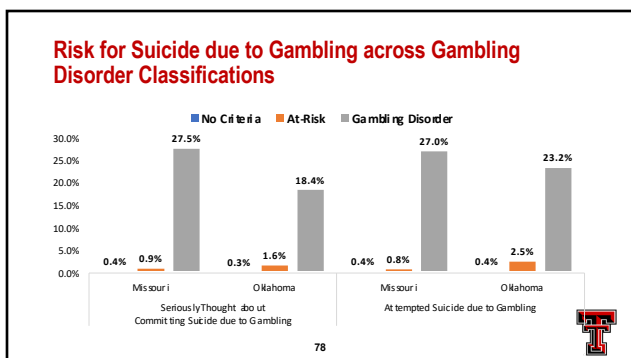
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## Summary of Findings and Implications

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### Summary

- 64% of MO and 57% of OK adults gamble with 18% gambling weekly
- Nearly 25% of MO adults and 30% of OK adults are at-risk for gambling disorder
  - 4.1% of MO and 6.3% of OK adults endorsed 4+ criteria suggesting high probability of gambling disorder
- Gambling weekly and/or playing slot or video card machines increases risk for gambling disorder
- Those who gamble do appear to be aware of the gambling helpline, but a small proportion are accessing this resource
- About 1 in 4 of those probable for gambling disorder report experiencing suicidal thoughts and even attempting suicide due to their gambling

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### Implications

**MO and OK have heightened prevalence rates of gambling disorder relative to other states and national estimate of about 2%**

- There is reason to believe that legalizing sports betting will increase the prevalence of gambling disorder based on increases in call volume within some states.
- With an already high prevalence of gambling disorder, do Missouri and Oklahoma have the resources, policies, and infrastructure to support legal sports betting and online gambling?

**If not, what will it take to become ready?**

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**Implications**  
*(continued)*

**A small proportion of those struggling with gambling disorder have called the helpline.**

- What explains the lack of calling the helpline among high-risk individuals?

**A high proportion are not aware of treatment options or Gamblers Anonymous meetings.**

- What are the obstacles in increasing awareness of these resources?

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**Expectations for Next Five Years**

**Two general predictions**

1. **There will be an increase in the prevalence of gambling participation across the U.S.**
2. **Individual intensity is expected to increase.**

- Legalization of sports betting and online gambling will contribute to an increase in access to gambling
- Younger adults are gambling at higher rates, and more gambling is becoming increasingly intertwined with other activities (e.g., video gaming, investing)

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**A Comment on Emerging Gambling Activities**

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**Cryptocurrency Trading and Cryptocurrency Casinos**

- Gambling (or speculation) within financial markets is not new
- Access to financial markets has expanded exponentially in the last five years, and in particular, access to risky financial assets (e.g., options contracts, cryptocurrencies)
- A strong correlation between cryptocurrency trading and risk for gambling disorder (Note: National and state-level prevalence data is not currently available)
- Cryptocurrencies are also used to access online casinos

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**Gamblification of Video Gaming**

- Gambling within or around video gaming has increased dramatically.
  - Examples include: (1) Loot box purchases, (2) eSports Betting, (3) Skin Betting, (4) Social Casino Gaming, (5) Play-to-Earn Video Games
- All examples (except Play-to-Earn gaming) are associated with increased risk for gambling disorder and gambling-related harms.

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**The Takeaway**

- Do not limit intake questions surrounding gambling to only commonly viewed gambling activities
- This might be a bold statement:

***Gambling is less an activity and more a behavior***

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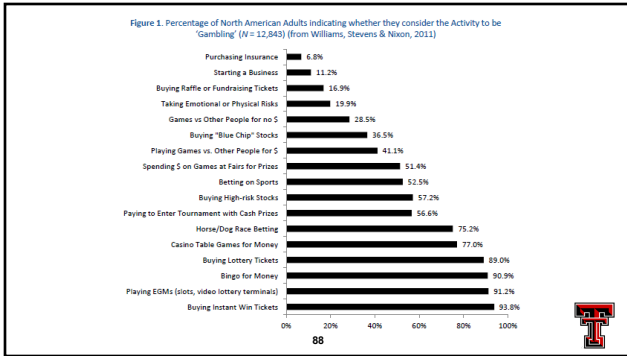


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**A Comment on Gambling-Related Harms**

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**Gambling Harms**

**These include...**

- Financial harms
- Emotional and psychological harms
- Interpersonal harms
- Community harms (e.g., criminal activity)
- Economic harms
- Physical harms

**Gambling harms are common even among recreational players**

**22% of players below problem**

**7% of non-problem players**

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### On the costs of problem vs disordered gambling

#### A population-level metric for gambling-related harm

Matthew Browne, Nancy Greer, Vijay Ravat and Matthew Rockloff  
School of Human, Health and Social Sciences, COUniversity, Bundberg, Australia



**ABSTRACT**  
Prior estimates of the population-level impact of gambling have relied on economic costings. Recent work has derived disability weights for the Problem Gambling Severity Index, which measure per-person impact of gambling on quality of life on a scale of zero to one. This provided scope for the present study to calculate the burden of gambling harm, which captures the aggregate impact of harms arising from gambling on quality of life in a population. Gambling-related harm was associated with 101,675 years of life lost in Victoria, Australia, approximately two-thirds that of alcohol use and dependence, and major depressive disorder. Problem gamblers suffer more individually (disability weight = .44) compared to those in moderate (.29) and low (.13) risk categories. Nevertheless, moderate and low risk gamblers account for 85% of population level harm, due to greater prevalence of these groups. Overall, the scale of gambling-related harm is large relative to other significant health issues, with milder yet non-negligible harm accruing to a relatively broad segment of the gambling population. The article suggests that the tendency to conflate the (typically low) prevalence of problem gambling with total gambling impact is misleading, and argues for a broader population-health based measure.

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### The point here is...

Most people gamble at least once a year

Many players experience gambling-related harms

Yet, only a small subset meet criteria for gambling disordered

**Gambling may be harmful (and problematic) even if it is not "disordered"**

**We cannot be *only* concerned about disordered gambling**

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### Final Thoughts

Gambling participation is likely to increase as legalized gambling continues to expand.

The prevalence of gambling disorder in OK and MO is concerning and underscores and current mental health crisis within the state.

More outreach and awareness campaigns promoting responsible (or safer) gambling strategies

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Thank you!

# Questions?

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