

# The slot machine of sports betting?

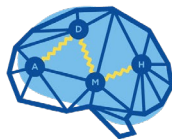
## Who, why, and the harms of in-play sports betting

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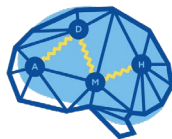
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@AndrewHSKim86

# Land Acknowledgement

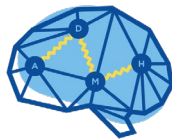
In the spirit of respect, reciprocity, and truth, we honour and acknowledge that the townsite of Banff is located on traditional Treaty 7 territory. These sacred lands are a gathering place for the Niitsitapi from the Blackfoot Confederacy, of whom the Siksika, Kainai, and Piikani First Nations are part; the Îyârhe Nakoda of the Chiniki, Bearspaw, and Wesley First Nations; the Tsuut'ina First Nation; the Métis Nation of Alberta, Region III within the historical Northwest Métis Homeland, and many others whose histories, languages, and cultures continue to enrich our vibrant community.



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# Disclosures

- ❖ My work has been funded by the Alberta Gambling Research Institute, Gambling Research Exchange Ontario, and the International Centre for Responsible Gaming
- ❖ I've received honorariums for conferences from The Partnership Symposium



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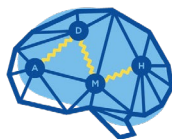
# Co-Investigators



**Jenna Vieira, BA**  
Toronto Metropolitan University



**Matthew Keough, PhD**  
York University



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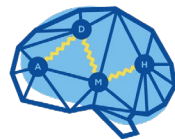


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# Recent Changes in Sports Betting Legislation and Impact



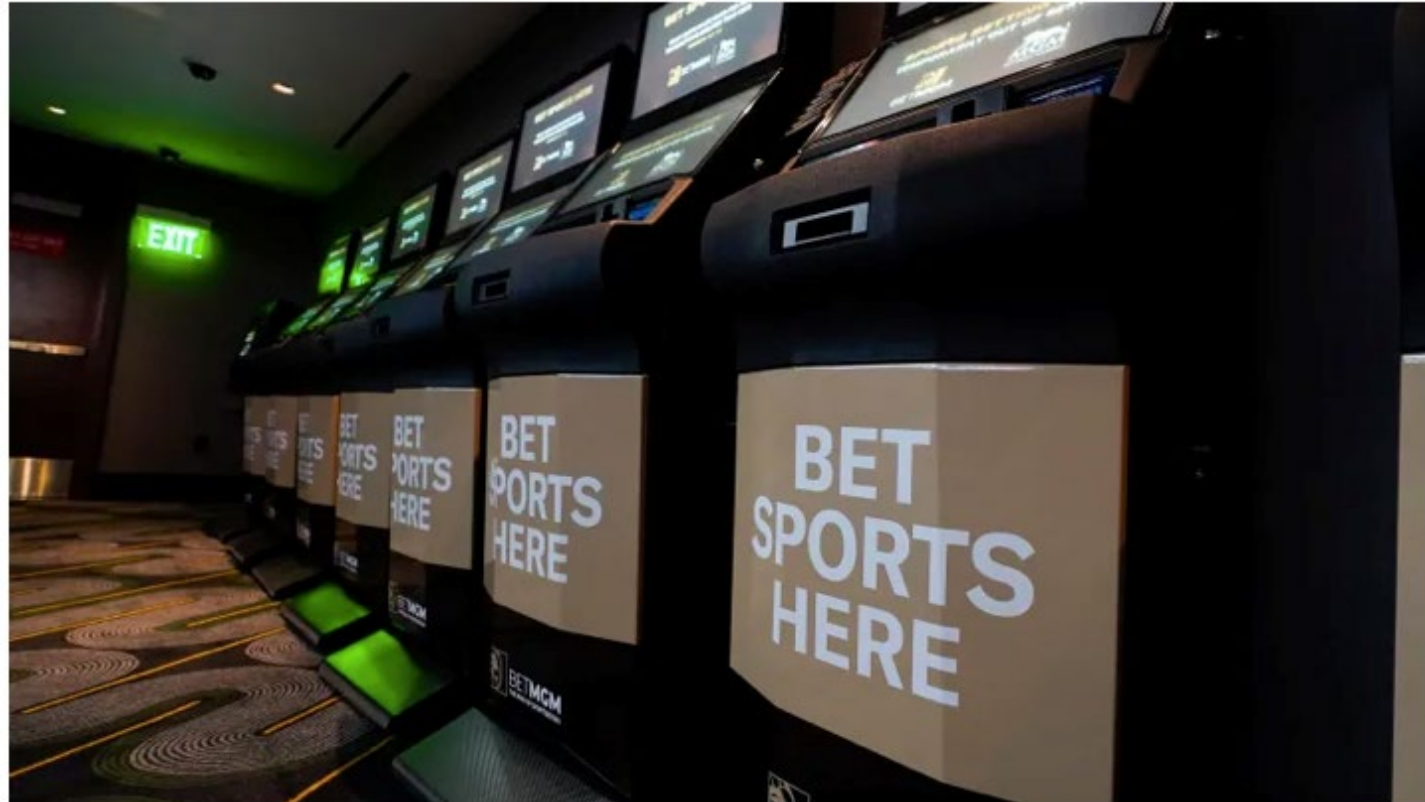
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# How sports gambling changes now that it's fully legal in Ontario



Everything you need to know before placing a bet

[Myles Dichter](#) · CBC Sports · Posted: Apr 04, 2022 5:31 PM EDT | Last Updated: April 4, 2022



Alberta opened up online gambling in September 2020, but offshore betting sites continue to advertise and take profits away from provincial corporations. (Julio Cortez/The Associated Press)



THE ONLINE CASINO WITH AWARD-WINNING  
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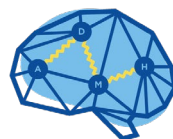
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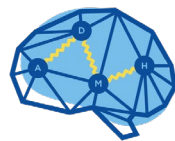


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# Sports Betting Prevalence Rates by Province, 2018 & 2022



(AGRI, 2018; Ipsos, 2022)

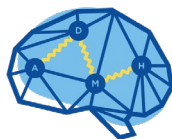


**Province**  
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# Sports Betting

## Types and Novel Forms

- ❖ **Parlay** → All outcomes bet on must be correct to win
- ❖ **Single-event** → Placing a bet on the outcome of one game
- ❖ **In-play** → Placing any bet as game is ongoing
  - ❖ Prop bets
  - ❖ Microbets








**A bet every  
35 seconds**

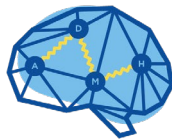


A photograph of a row of slot machines in a casino. The machines are illuminated with various lights, and the background is slightly blurred, showing other casino elements. A semi-transparent circular overlay is positioned on the right side of the image, containing text.

The structural characteristics of novel forms of sports betting (e.g., in-play) have made this activity a **continuous form of gambling**.

# Overall Research Questions

- ❖ **RQ1:** Is in-play betting associated with greater problem gambling severity and gambling-related harms compared to single-event and traditional forms of sports betting (e.g., parlay)?
- ❖ **RQ2:** What are the individual and situational antecedents (e.g., social influences, substance use) of in-play betting and harms?

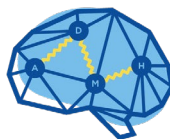
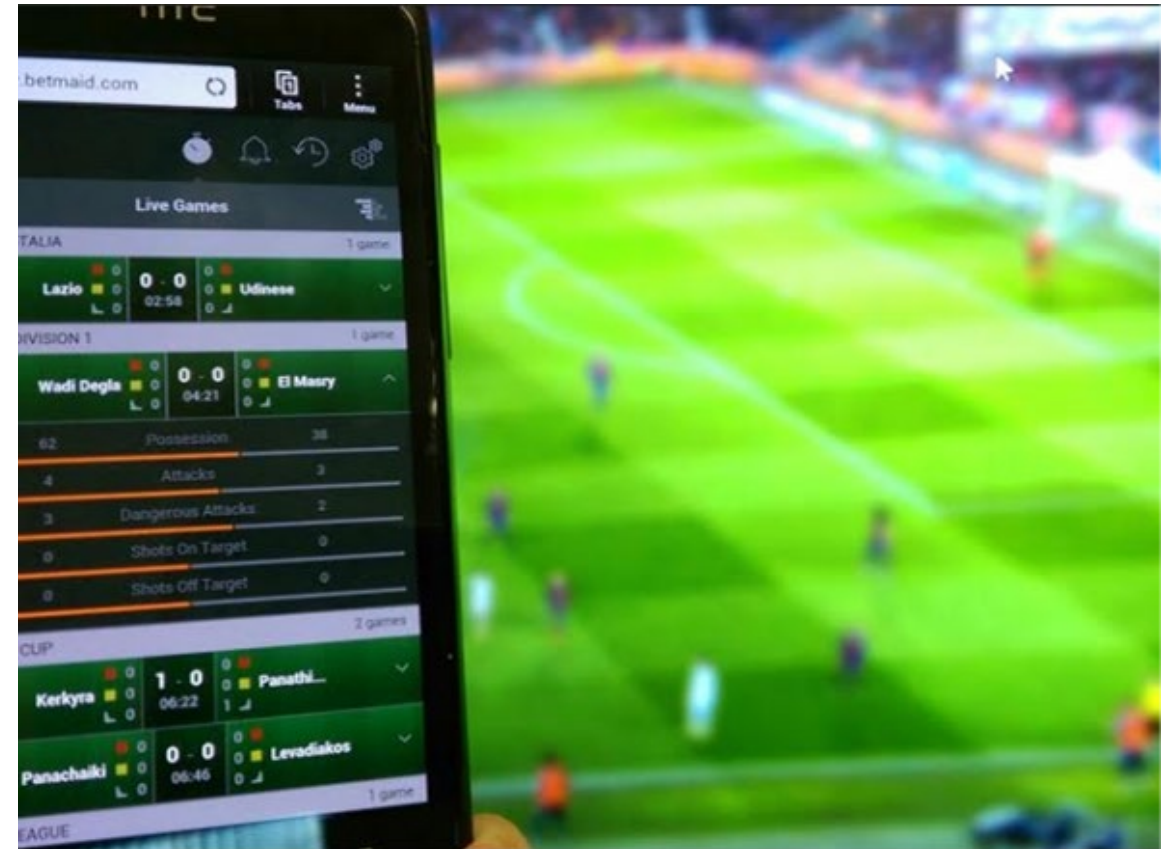




# Study 1

## Overview

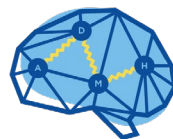
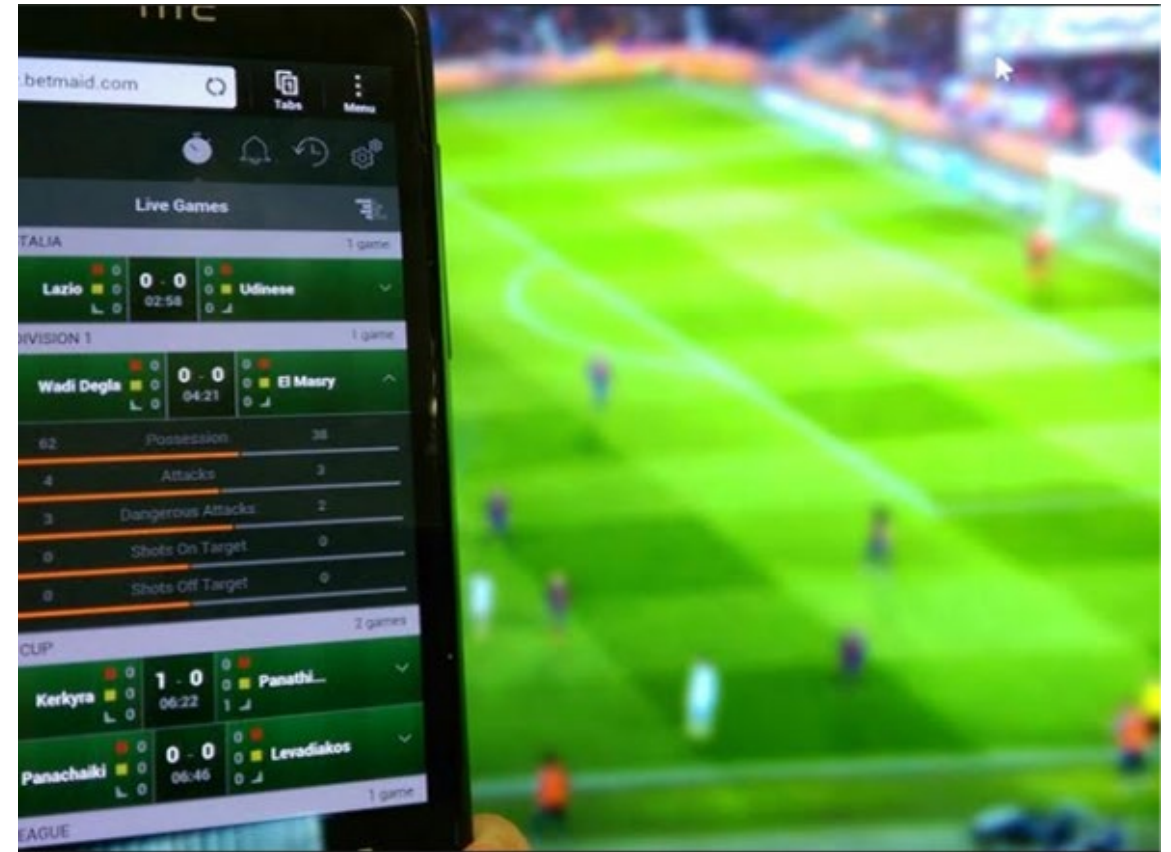
- ❖ **Sample** → 920 Ontarian adults who placed a sports bet in the past 3 months and completed measure of sports betting engagement (Timeline follow-back)
  - 223 in-play bettors, 533 single-event bettors, 164 traditional bettors
  - Recruited via Asking Canadians panel in May 2022
- ❖ **Online survey**
  - Demographics
  - Psychological vulnerabilities (e.g., depression, impulsivity, emotion dysregulation substance use)
  - Problem gambling and related harms



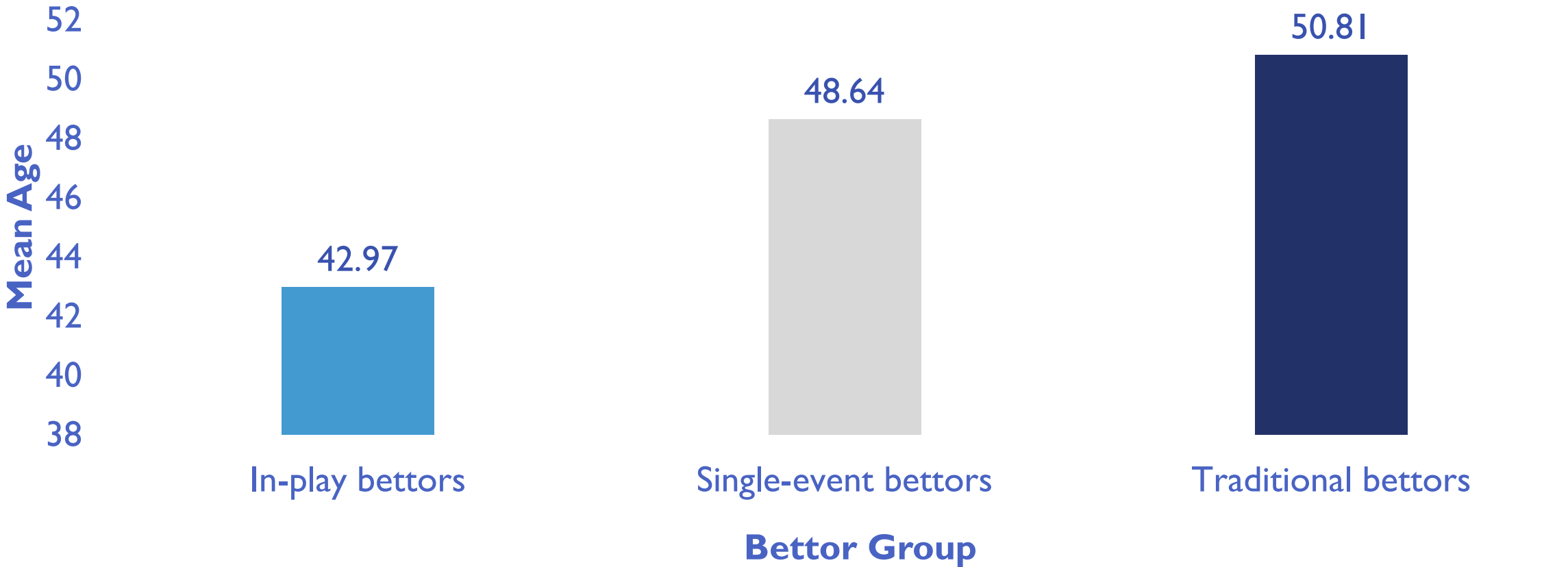
# Study 1

## Results

- ❖ On average over the past 90 days, in-play bettors:
  - ❖ Placed an in-play bet on 6.17 days
  - ❖ Placed 20.74 in-play bets
  - ❖ Spent \$281.63 CAD on in-play betting

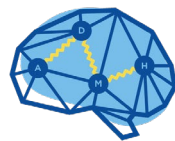
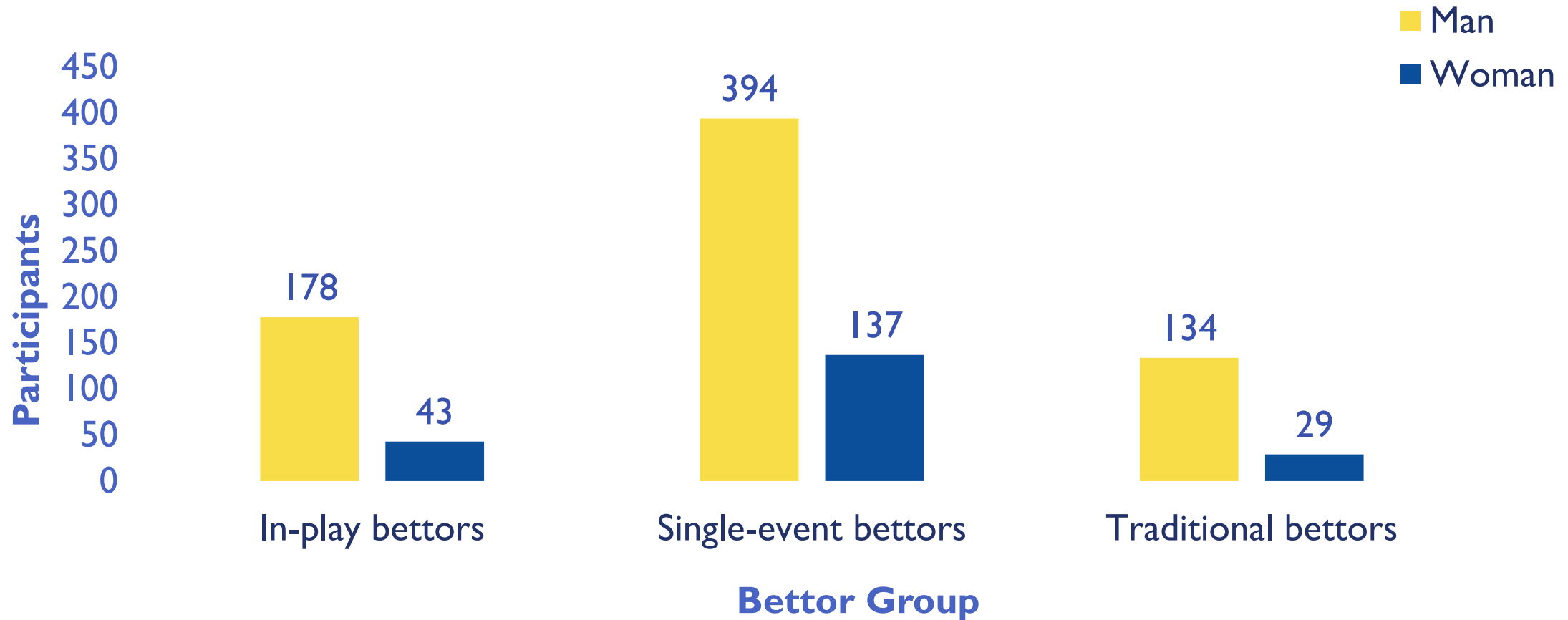


# Mean Age of In -Play, Single-Event, and Traditional Sports Bettors

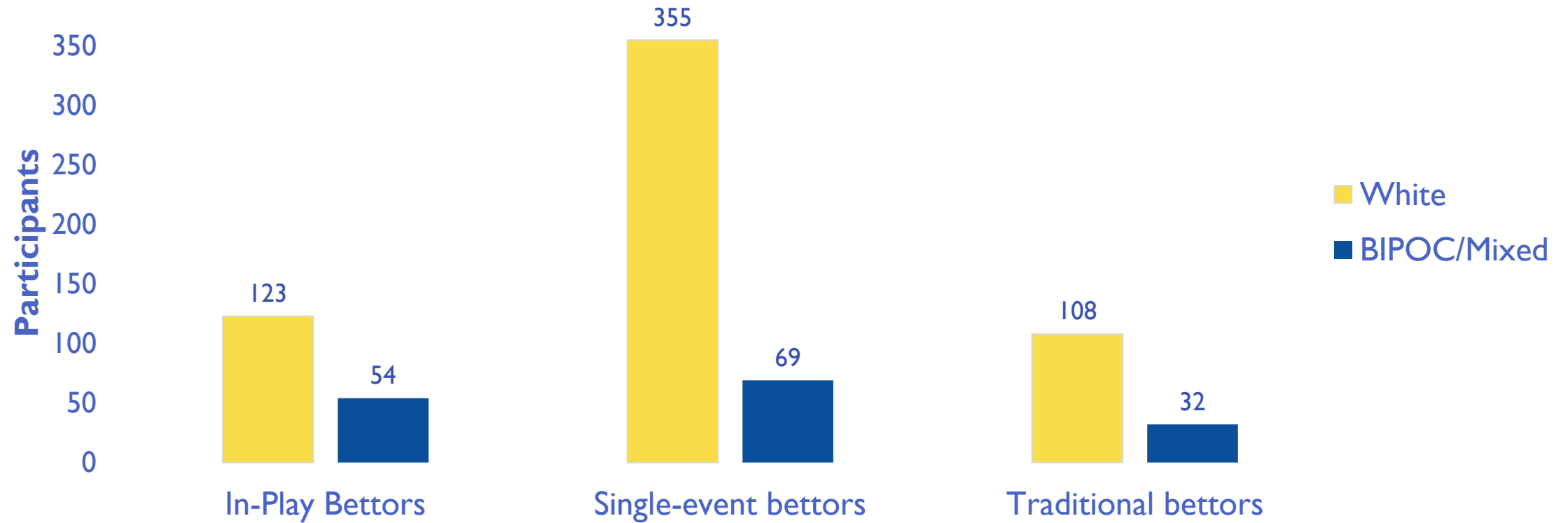




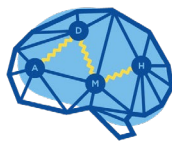
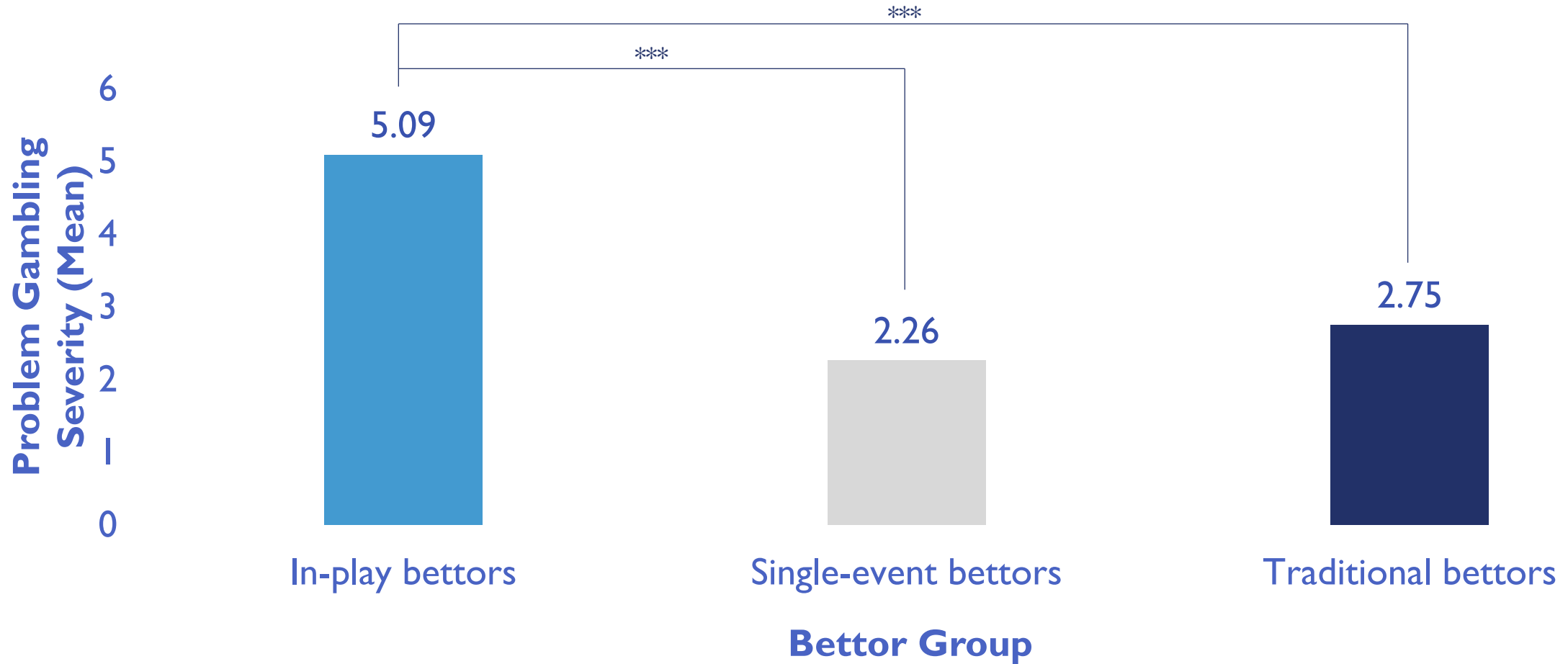
# Gender Distribution of In-Play, Single-Event, and Traditional Sports Bettors



# Ethnicity of In -Play, Single-Event, and Traditional Sports Bettors

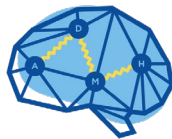
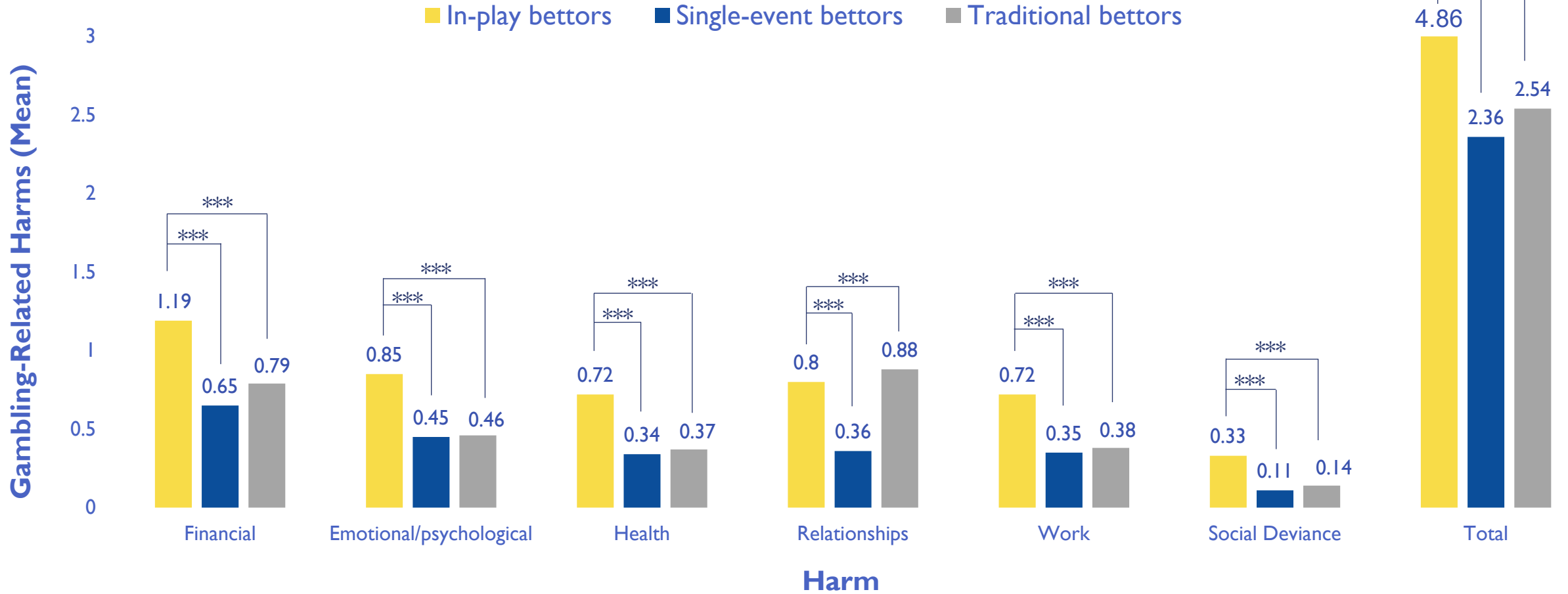


# Problem Gambling Severity of In-Play, Single-Event, and Traditional Bettors

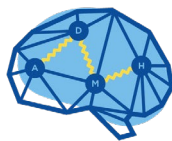
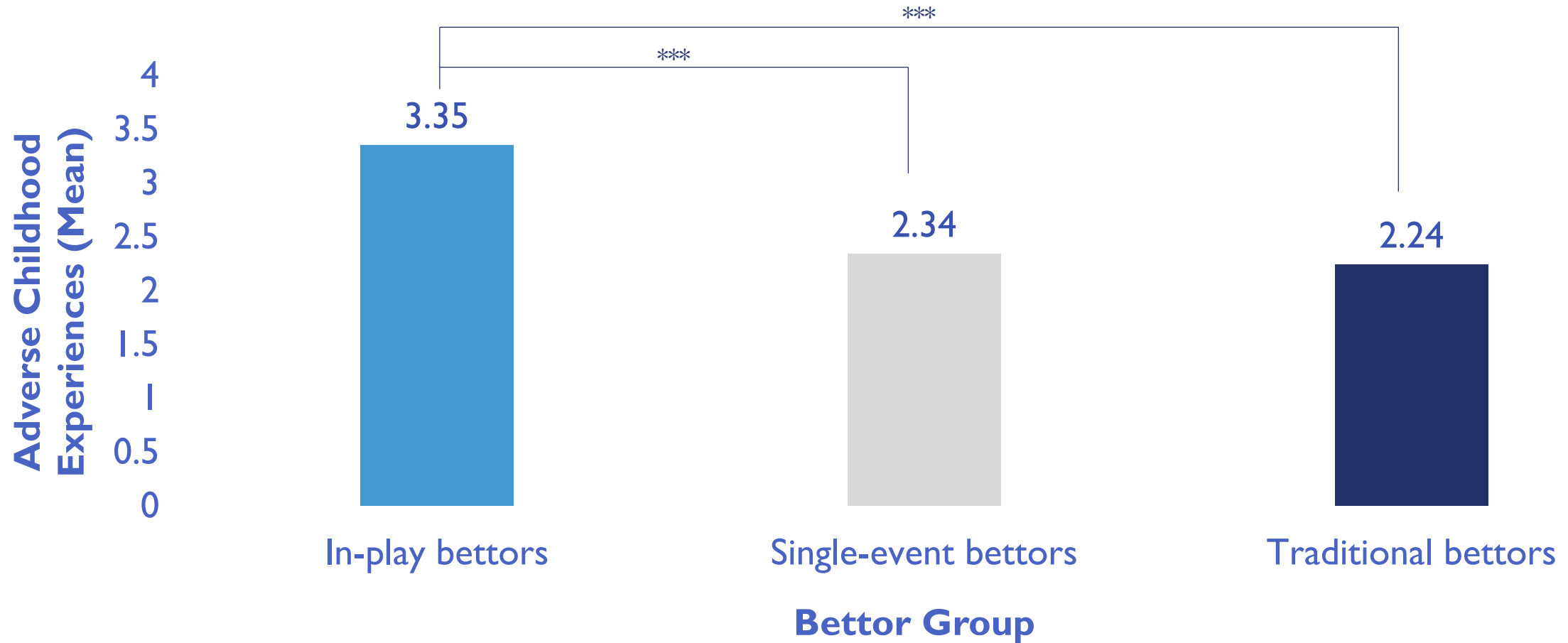




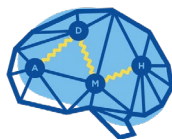
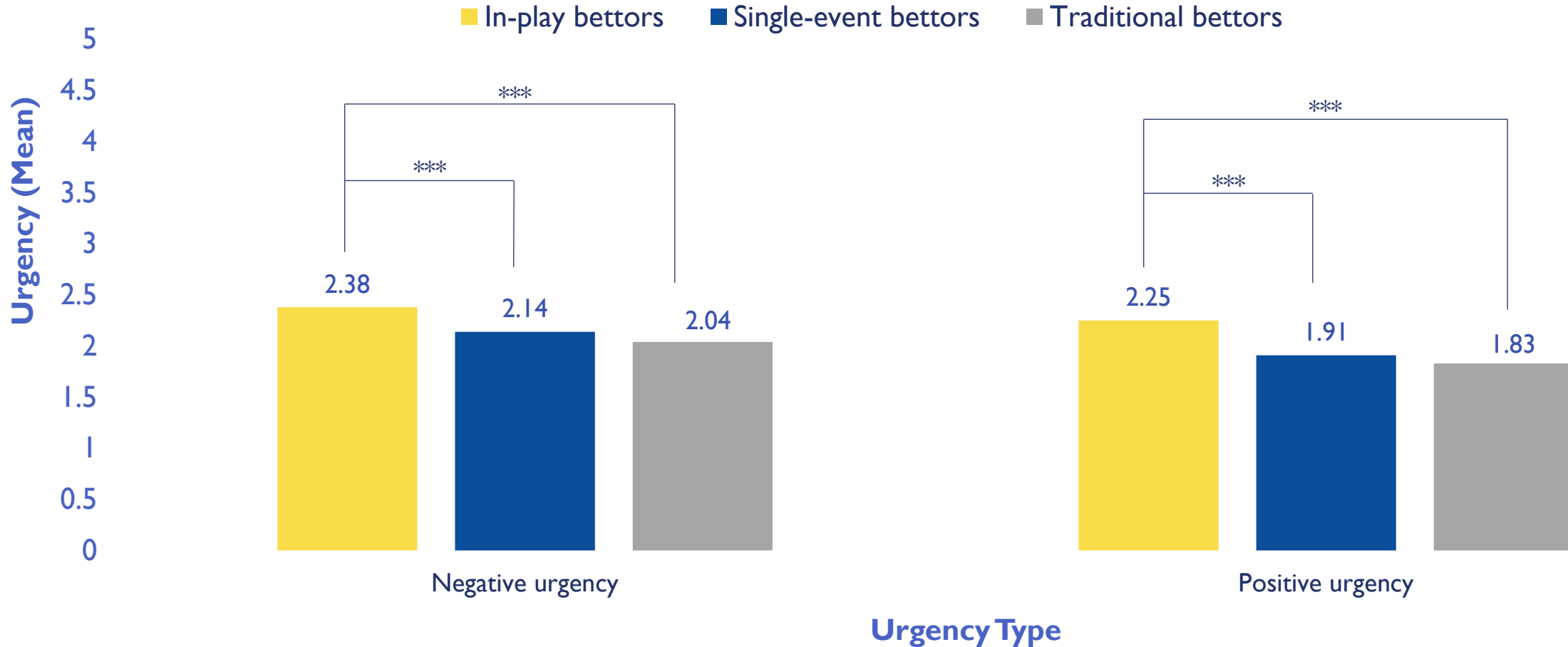
# Gambling -Related Harms of In -Play, Single-Event, and Traditional Bettors



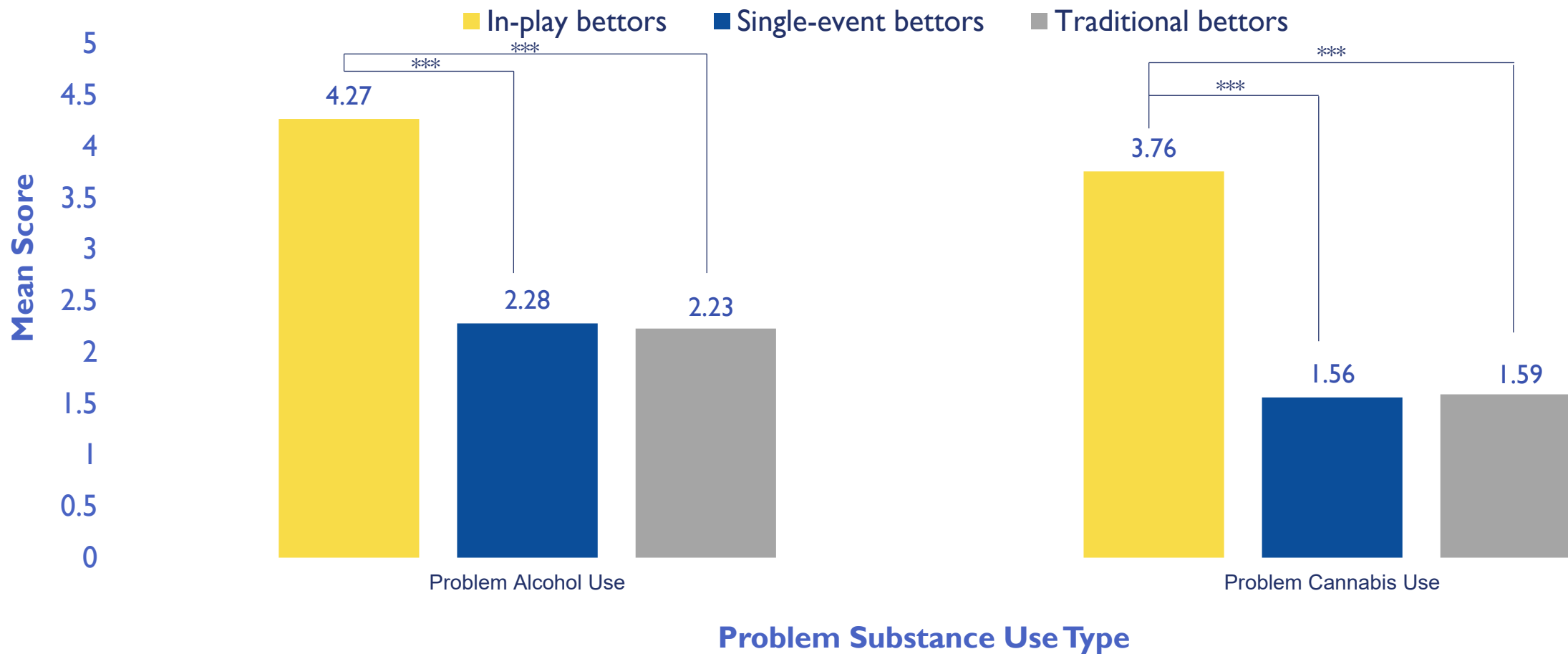
# Adverse Childhood Experiences among In-Play, Single-Event, and Traditional Bettors



# Emotion -Driven Impulsivity among In -Play, Single-Event, and Traditional Bettors

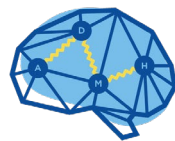
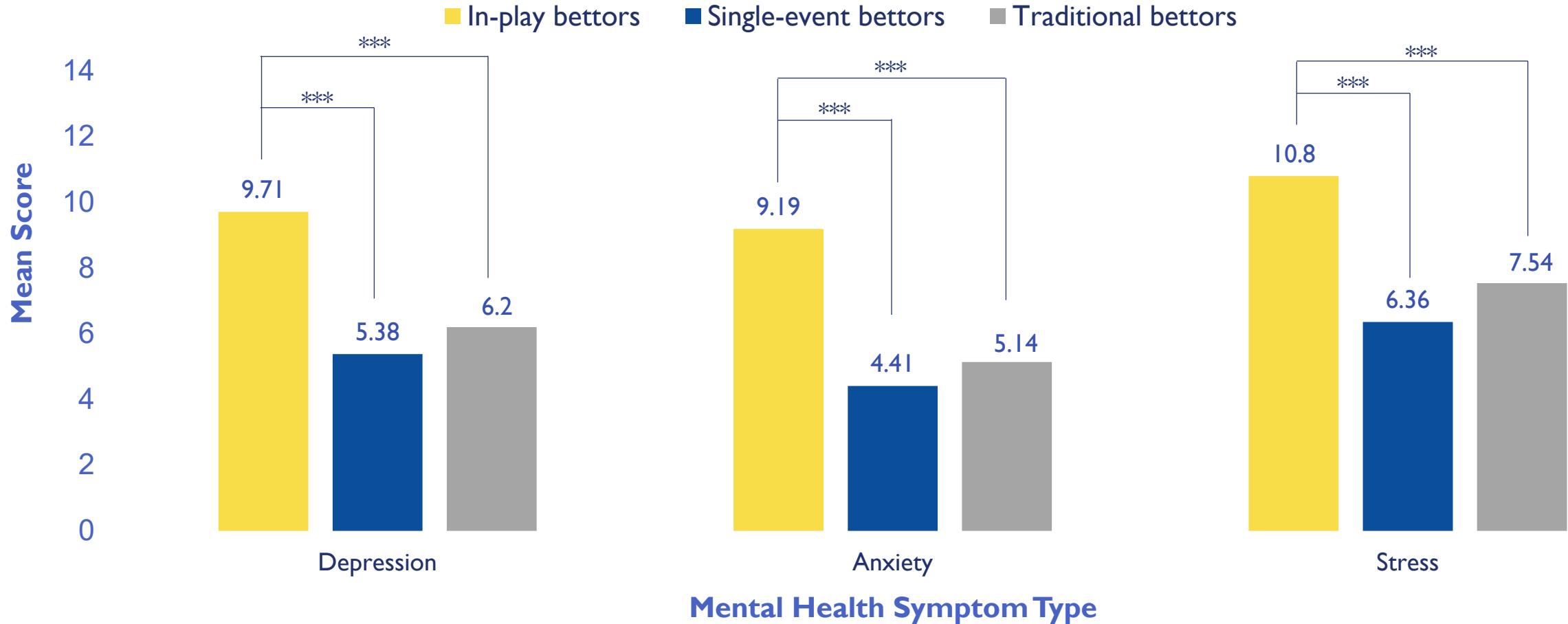


# Substance Use among In -Play, Single-Event, and Traditional Bettors

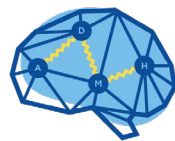
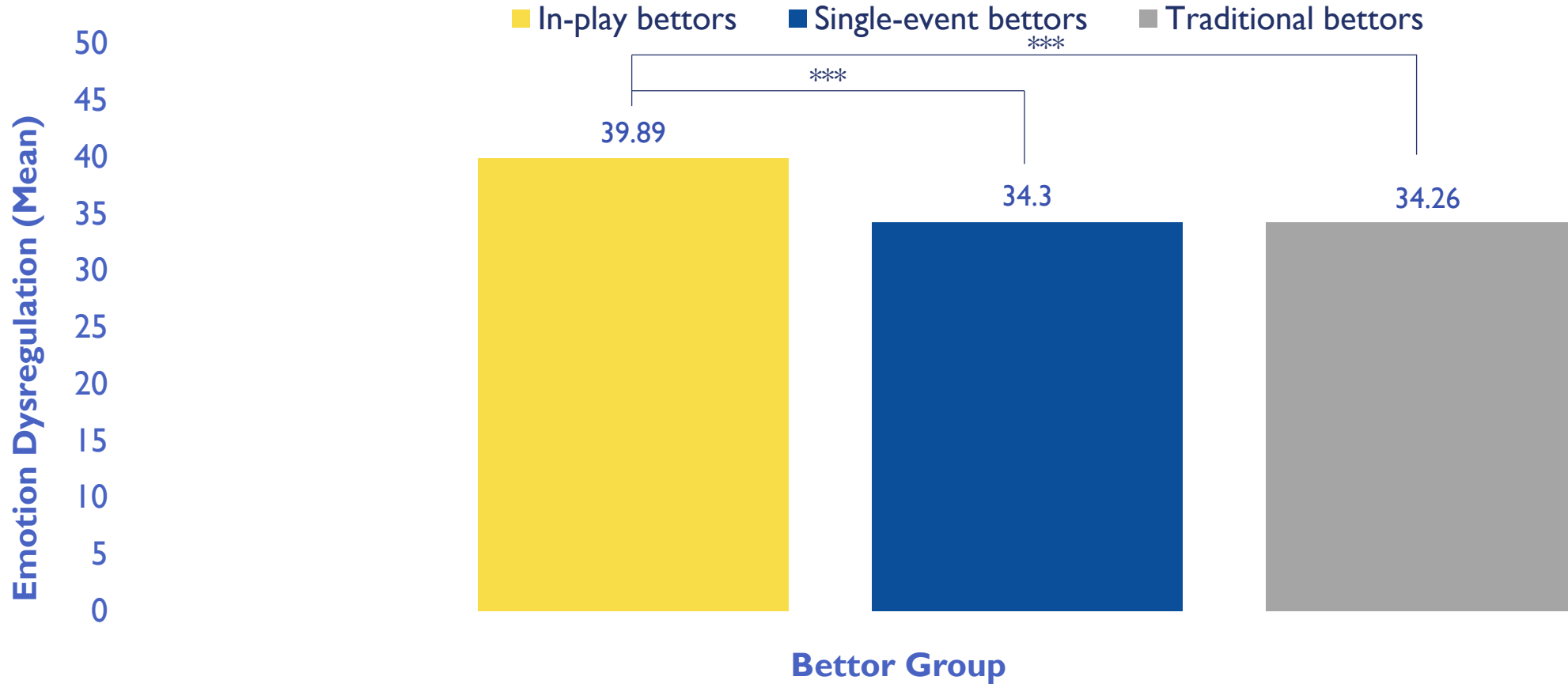




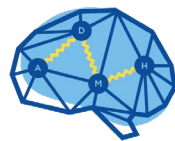
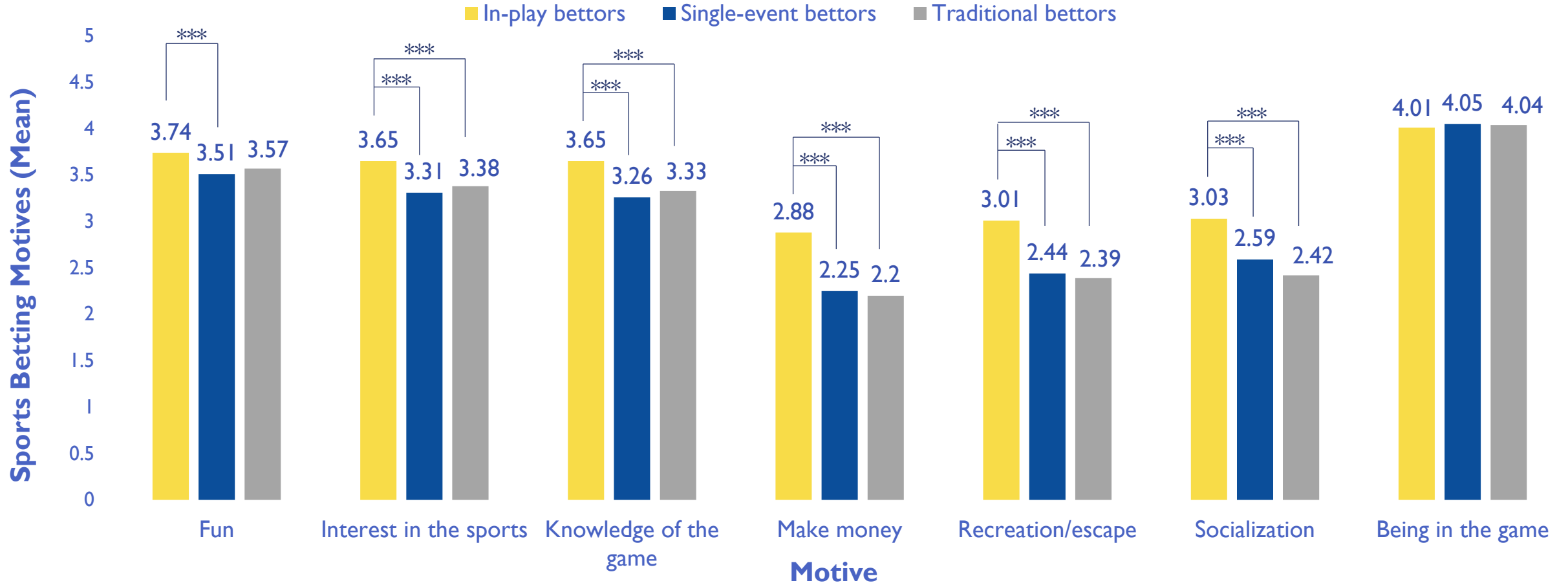
# Mental Health Symptoms among In-Play, Single-Event, and Traditional Bettors



# Emotion Dysregulation among In-Play, Single-Event, and Traditional Bettors



# Sports Betting Motives of In-Play, Single-Event, and Traditional Bettors

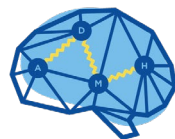


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# Study 1

## Conclusion

- ❖ Adds support to the growing literature suggesting that in-play sports betting is associated with greater problem gambling and related harms compared to other forms
- ❖ Individuals with increased psychosocial vulnerabilities (e.g., ACEs, emotion dysregulation) may be especially attracted to in-play betting – but directionality of these relationships requires further investigation

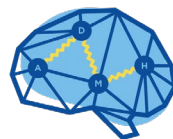




# Study 2

## Overview

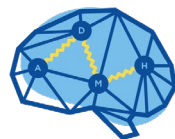
- ❖ Sample → 84 in-play bettors from Study 1
  - The majority of participants were White, men, and heterosexual. Mean age → 41.02 years
- ❖ Demographics + baseline characteristics measured in Study 1
  - ❖ ACEs
  - ❖ Emotion dysregulation
  - ❖ Impulsivity
  - ❖ Problem gambling
- ❖ 14-day daily diary study
  - Via MetricWire app in May and June 2022



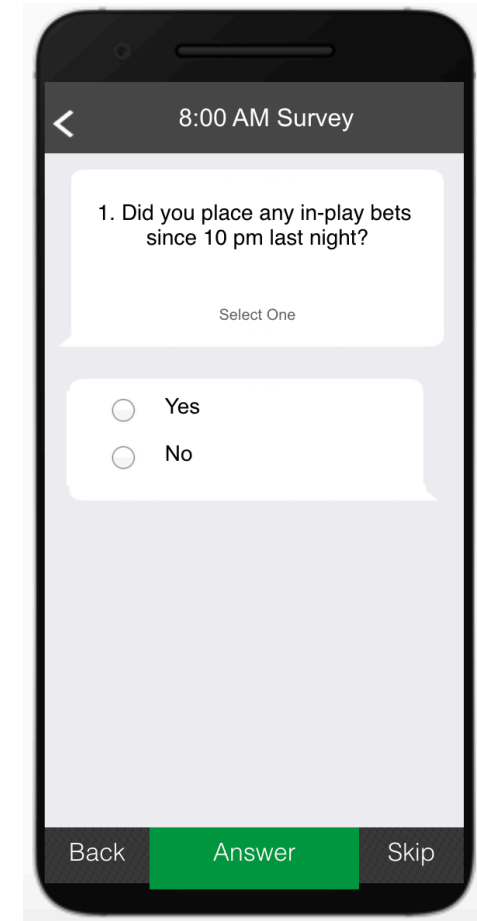
# Study 2

## Overview

- ❖ Prompted 2x per day
  - ❖ Morning survey → 8:00am
  - ❖ Night survey → 10:00pm
- ❖ Questions consistent across surveys
  - ❖ In-play betting behaviours
  - ❖ Motives for in-play betting
  - ❖ In-play betting-related harms
  - ❖ Context of in-play betting



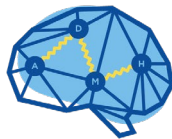
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# Study 2

## What was examined?

- ❖ Generalized linear mixed models (GLMM)
- ❖ Outcome variables
  - ❖ Number of in-play bets placed
  - ❖ Money spent on in-play bets
  - ❖ Financial harms
  - ❖ Interpersonal harms
- ❖ Predictors
  - ❖ Model Set 1 → Demographic & psychological correlates
  - ❖ Model Set 2 → Contextual correlates
  - ❖ Model Set 3 → Motivational correlates



# Study 2

## Results– Demographic and Psychological Correlates

### In-play bets placed



- ❖ Negative urgency
- ❖ Emotion dysregulation

### Money spent

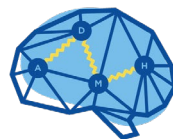


- ❖ Problem gambling severity
- ❖ ACEs
- ❖ Sensation seeking

### Gambling-related harms



- ❖ Problem gambling severity



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# Study 2

## Results– Contextual Correlates

### In-play bets placed



- ❖ Alcohol + cannabis use
- ❖ Watching the game
- ❖ Being with others
- ❖ Being with friends who were placing bets

### Money spent

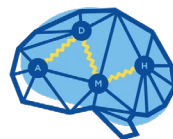


- ❖ Alcohol + cannabis use
- ❖ Being with others

### Gambling-related harms



- ❖ Alcohol + cannabis use
- ❖ Watching the game



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# Study 2

## Results– Motivational Correlates

### In-play bets placed



- ❖ Enhancement motives
- ❖ Coping motives
- ❖ Being in the game motives

### Money spent

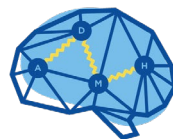


- ❖ Enhancement motives
- ❖ Coping motives
- ❖ Interest in sport motives

### Gambling-related harms



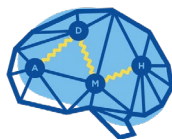
- ❖ Coping motives
- ❖ Making money motives
- ❖ Interest in sport motives



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# Conclusion

- ❖ In-play betting appears to be a particularly harmful activity relative to single-event and traditional forms of sports betting
- ❖ Efforts to address the harms of in-play betting are necessary, given the increasing liberalization and availability of sports betting in Canada and the U.S.
- ❖ RG prevention and intervention efforts in Ontario may need to be tailored for in-play betting.



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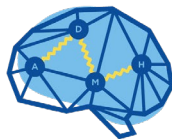
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