AN INVESTIGATION OF THE RELATIONSHIP BETWEEN GAMBLING MOTIVES AND PROBLEM GAMBLING AMONG SPECULATIVE GAMBLERS

Diandra Leslie¹, Daniel S. McGrath¹, Jennifer N. Williams², & Carrie A. Leonard²

¹University of Calgary, Department of Psychology; ²University of Lethbridge, Department of Psychology

INTRODUCTION

- Speculative financial market activities (SFMAs) are short-term, high-risk financial instruments such as day trading.
- Although not synonymous with gambling, SFMAs and gambling share similarities such as being chance-based and incurring a high risk of financial loss¹.
- Past research has shown a link between engagement in SFMAs and increased rates of problem gambling^{2,3}.
- The mechanisms that underlie the relationship between SFMA engagement and problem gambling are not well understood; however, certain gambling motives and fallacious beliefs about how gambling works may play a role in this relationship.

OBJECTIVE

• To investigate whether past year gamblers who had engaged in SFMAs (i.e., speculative gamblers) differed in terms of (i) age, (ii) gender, (iii) problem gambling severity, and (iv) endorsement of gambling fallacies based on their primary motive for gambling.

METHODS

- Using the Alberta Gambling Research Institute National Project Online Panel dataset, N = 1,025 speculative gamblers were identified.
- Participants indicated their single, primary motive for gambling, answered questions about their demographics, and completed the Problem Gambling Severity Index and the Gambling Fallacies Measure.
- Five primary gambling motives were identified: (i) financial, (ii) enhancement, (iii) socialization, (iv), coping, and (v) skill-building.
- Participants were grouped based on their primary gambling motive, and compared in terms of age, gender, problem gambling severity, and endorsement of gambling fallacies.
- Statistical analyses:
- Chi-square test of independence.
- Kruskal-Wallis H tests with Bonferroni corrected Dwass-Steel-Critchlow-Fligner (DSCF) pairwise comparisons.

PARTICIPANT CHARACTERISTICS

- Mean age: 45.3 ± 16.0 years.
- Gender distribution: 67% male; 33% female.

RESULTS Primary Gambling Motive Distribution

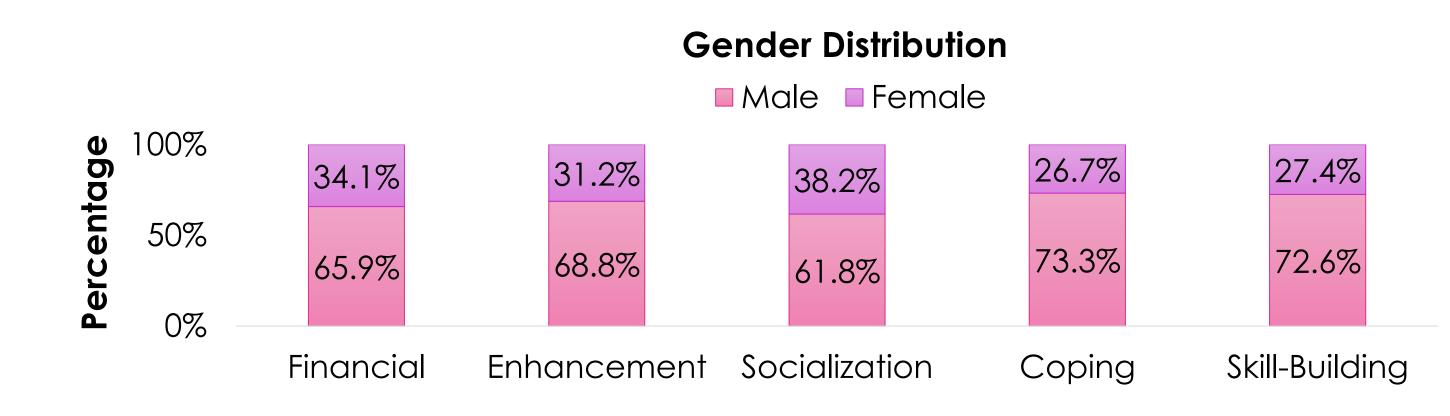


Figure 1. Distribution of the endorsed primary gambling motives among the N = 1,025 speculative gamblers included in this study.

Median Age 50.0 44.0 46.0 42.0 41.0 34.0 25.0 0.0 Financial Enhancement Socialization Coping Skill-Building

Primary Gambling Motive

Figure 2. Median age of participants based on their primary gambling motive, $\chi^2(4, N = 1.025) = 17.48$, p = .002, $\varepsilon^2 = 0.02$. Those who endorsed skill-building were significantly younger than those who endorsed financial (W = -5.75, p < .001) or enhancement motives (W = -5.06, p = 003).



Primary Gambling Motive

Figure 3. Gender distribution of male and female speculative gamblers based on their primary gambling motive. No significant gender differences were found, χ^2 (4, N=1,025) = 3.23, p=.521.



Figure 4. Median Problem Gambling Severity Index scores based on participants' primary gambling motive, χ^2 (4, N=1,025) = 65.09, p<0.001, $\varepsilon^2=0.06$. Those who endorsed skill building reported significantly higher scores than those who endorsed financial (W=11.30, p<0.001), enhancement (W=9.06, p<0.001), socialization (W=6.15, p<0.001), or coping motives (W=6.38, p<0.001).



Primary Gambling Motive

Figure 5. Median Gambling Fallacies Measure scores based on participants' primary gambling motive, χ^2 (4, N=1,025) = 53.24, p<.001, $\varepsilon^2=0.05$. Those who endorsed skill building reported significantly lower scores than those who endorsed financial (W=-9.48, p<.001), enhancement (W=-9.32, p<.001), or coping motives (W=-7.42, p<.001).

SUMMARY

- Demographics
- Speculative gamblers who endorsed skill-building as their primary motive for gambling were significantly younger than those who endorsed financial or enhancement motives.
- No significant gender differences were found.
- Problem Gambling Severity
- Speculative gamblers who endorsed skill-building motives reported significantly higher problem gambling severity scores than those who endorsed financial, enhancement, socialization, or coping motives.
- Beliefs in Gambling Fallacies
- Speculative gamblers who endorsed skill-building scored significantly lower on the Gambling Fallacies Measure than those who endorsed financial, enhancement, or coping motives. Lower scores are indicative of increased susceptibility to beliefs in fallacies about how gambling actually works.
- Future Directions
- Targeting speculative gamblers (especially younger players and those who believe their gambling skills can be improved) with interventions to reduce susceptibility to gambling fallacies may be warranted.
- Previous research has shown interventions such as training in probability theory can increase resistance to gambling fallacies⁴. This may be a viable intervention strategy that could lead to a reduction in players' likelihood of experiencing gambling-related harms.

REFERENCES

- 1) Arthur, J. N., Williams, R. J., & Delfabbro, P. H. (2016). The conceptual and empirical relationship between gambling, investing, and speculation. *Journal of behavioral addictions*, 5(4), 580-591.
- 2) Arthur, J. N., Delfabbro, P., & Williams, R. J. (2015). Is there a relationship between participation in gambling activities and participation in high-risk stock trading? *Journal of Gambling Business and Economics*, 9(3), 34–53.
- 3) Arthur, J. N., & Delfabbro, P. (2017). Day traders in South Australia: Similarities and differences with traditional gamblers. *Journal of Gambling Studies*, 33(3), 855-866.
- 4) Williams, R. J., & Connolly, D. (2006). Does learning about the mathematics of gambling change gambling behavior? *Psychology of Addictive Behaviors*, 20(1), 62–68.







Poster presented at the 17th annual Hotchkiss Brain Institute Research Day Conference May 27, 2021

Contact: Diandra Leslie – rdleslie@ucalgary.ca