PREDICTORS OF MODERATE-RISK-TO-PROBLEM GAMBLING AMONG CANADIAN DAY TRADERS

R. Diandra Leslie[1], Carrie A. Shaw[2], & Daniel S. McGrath[1]

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

INTRODUCTION

- Financial speculation includes activities such as purchasing penny stocks, shorting stocks, trading options, futures, and cryptocurrencies, and day trading.

- Previous studies have revealed that factors such as age [1, 4-6], gender [1-6], racial/ethnic background [1, 2, 4, 6], education [1-3, 6], income [1-6], preferred game type (i.e., skill- or chance-based) [1-2], and the number of gambling activities engaged in [2] are associated with participation in financial speculation.

- Past research has also shown a positive association between financial speculation and problem gambling severity [1, 2, 4, 6].

- There is a paucity of research examining predictors of risky gambling behaviour among financial speculators.

- The goal of the present study was to explore risk factors for moderate-risk-to-problem gambling in a sample of day traders.

METHODS

Recruitment
- Using the baseline AGRI National Project online panel dataset, N = 467 day traders were identified.

Measures
- Sociodemographics
- Preferred game type (skill-based, chance-based, or none)
- Number of gambling activities
- Primary gambling motives
- Gambling Fallacies Measure (GFM)
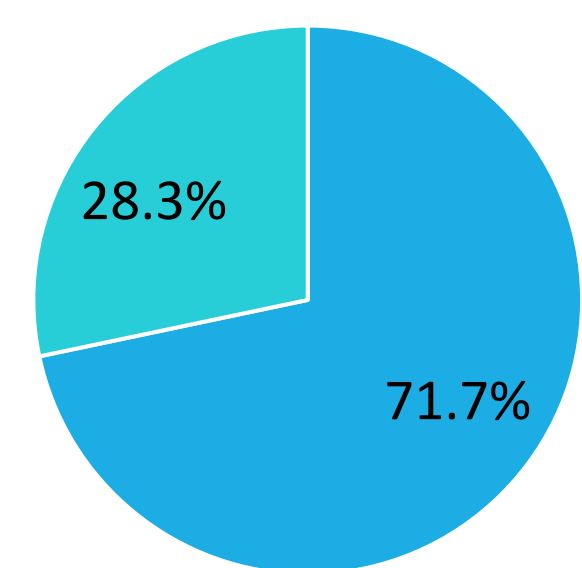- Problem Gambling Severity Index (PGSI)

Statistical Analysis
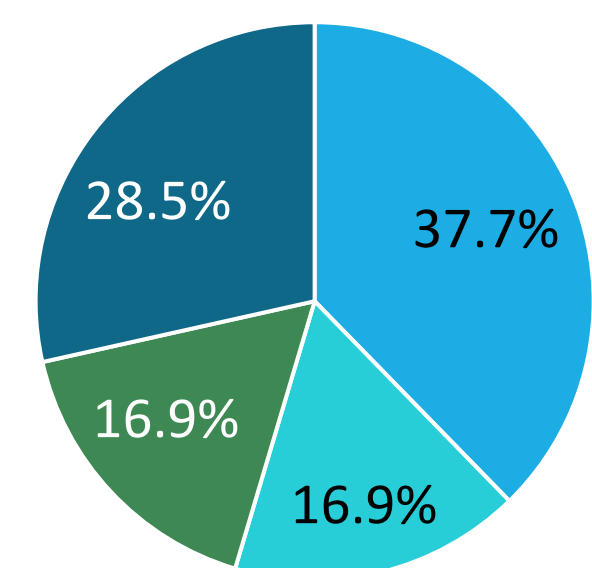- Binary logistic regression

PARTICIPANT CHARACTERISTICS
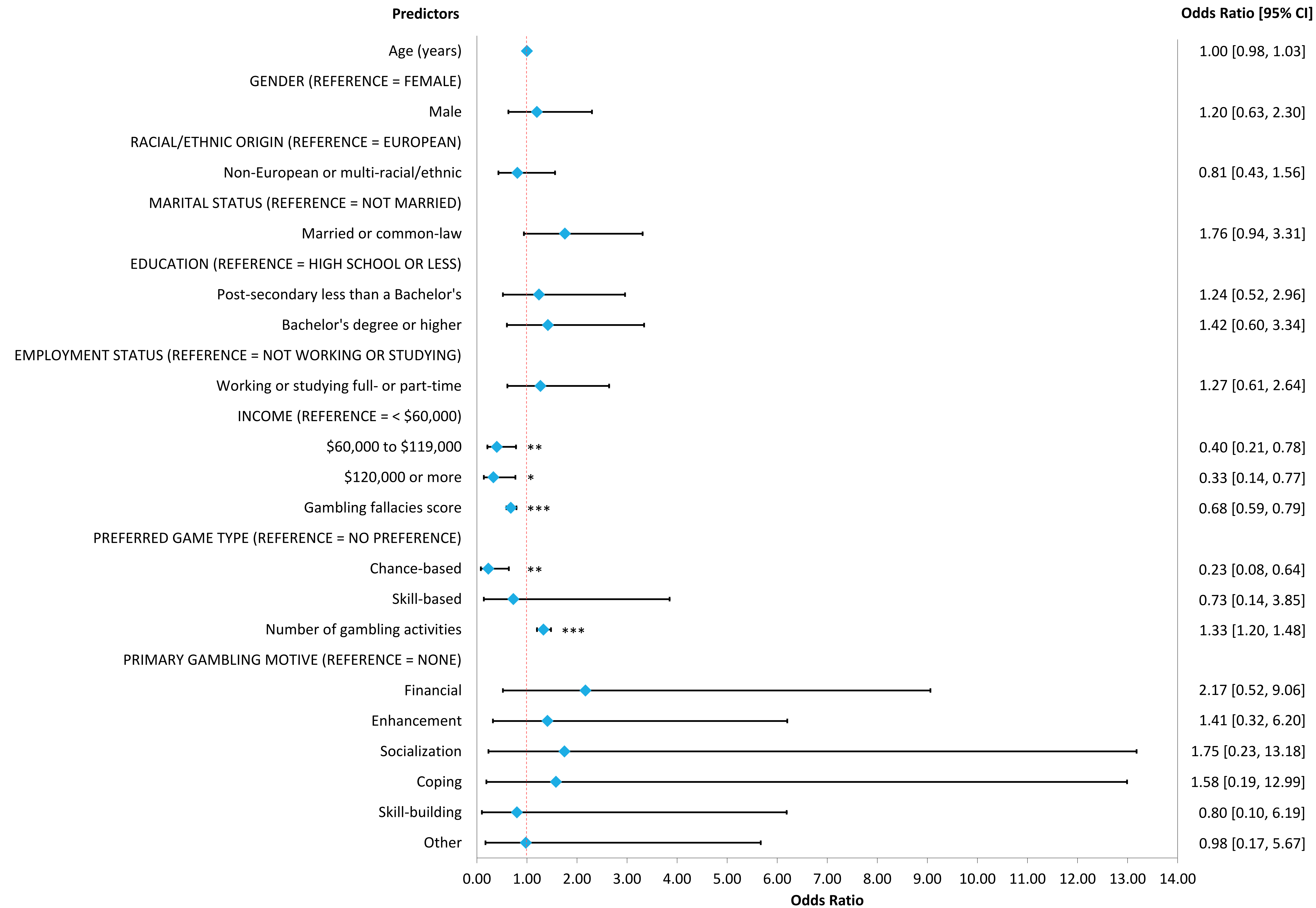
- Mean age: 46.3 ± 16.2 years

Gender Distribution

28.3%
71.7%

■ Male ■ Female

Problem Gambling Severity

37.7%
16.9%
16.9%
28.5%

■ Non-problem ■ Low-risk
■ Moderate-risk ■ Problem

RESULTS

Predictors	Odds Ratio [95% CI]
Age (years)	1.00 [0.98, 1.03]
GENDER (REFERENCE = FEMALE)	
Male	1.20 [0.63, 2.30]
RACIAL/ETHNIC ORIGIN (REFERENCE = EUROPEAN)	
Non-European or multi-racial/ethnic	0.81 [0.43, 1.56]
MARITAL STATUS (REFERENCE = NOT MARRIED)	
Married or common-law	1.76 [0.94, 3.31]
EDUCATION (REFERENCE = HIGH SCHOOL OR LESS)	
Post-secondary less than a Bachelor's	1.24 [0.52, 2.96]
Bachelor's degree or higher	1.42 [0.60, 3.34]
EMPLOYMENT STATUS (REFERENCE = NOT WORKING OR STUDYING)	
Working or studying full- or part-time	1.27 [0.61, 2.64]
INCOME (REFERENCE = < $60,000)	
$60,000 to $119,000 **	0.40 [0.21, 0.78]
$120,000 or more *	0.33 [0.14, 0.77]
Gambling fallacies score ***	0.68 [0.59, 0.79]
PREFERRED GAME TYPE (REFERENCE = NO PREFERENCE)	
Chance-based **	0.23 [0.08, 0.64]
Skill-based	0.73 [0.14, 3.85]
Number of gambling activities ***	1.33 [1.20, 1.48]
PRIMARY GAMBLING MOTIVE (REFERENCE = NONE)	
Financial	2.17 [0.52, 9.06]
Enhancement	1.41 [0.32, 6.20]
Socialization	1.75 [0.23, 13.18]
Coping	1.58 [0.19, 12.99]
Skill-building	0.80 [0.10, 6.19]
Other	0.98 [0.17, 5.67]

Note. Outcome variable = Non-problem-to-low-risk gambler (PGSI ≤ 2) vs. moderate-risk-to-problem gambler (PGSI ≥ 3). Reference = non-problem-to-low-risk gambler.

How to Read this Graph
- The dashed red vertical line represents the line of null effect.
- The blue diamonds (i.e., point estimates) represent odds ratios.
- The horizontal lines attached to each point estimate (i.e., whiskers) represent 95% confidence intervals.
- Point estimates to the left of the line of null effect are negative predictors of moderate-risk-to-problem gambling. Point estimates to the right of the line of null effect are positive predictors of moderate-risk-to-problem gambling.
- If the whiskers and point estimates do not overlap the line of null effect, the predictor is statistically significant (p < .05). If the whiskers and/or point estimates do overlap the line of null effect, the predictor is not statistically significant (p > .05).
- The right-hand column shows the exact values of the odds ratios and 95% confidence intervals.
- * = p < .05; ** = p < .01; *** = p < .001

SUMMARY

Findings
- Day traders were more likely to engage in moderate-risk-to-problem gambling behaviours if they:
  - reported a lower annual income.
  - were less resistant to endorsing gambling fallacies.
  - showed no preference for game type.
  - participated in a larger number of gambling activities.

- Age, gender, racial/ethnic origin, marital status, educational attainment, employment status, and primary gambling motives did not predict problem gambling severity (p > .05).

Implications
- Much of the research in this area has focused on identifying who is most likely to participate in financial speculation and has reported associations between participation in financial speculation and problem gambling behaviour.

- There is a lack of research examining characteristics that may account for financial speculators' increased risk of engaging in problematic gambling behaviours. The present study addresses this research gap.

- Sociodemographic, behavioural, and cognitive factors appear to play a role in problem gambling risk among day traders.

- Generating an improved understanding of risk factors for problem gambling among financial speculators can shed light on how to identify potentially at-risk individuals and aid in developing strategies for harm reduction and prevention.

Limitations and Future Directions
- This study's focus on only day traders limits the generalizability of findings to other forms of financial speculation.

- Future research comparing characteristics of different types of financial speculators (e.g., day traders, cryptocurrency traders, etc.) is needed to establish their similarities and differences more conclusively.

REFERENCES

1. 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.
2. Williams, J. N., Williams, R. J., Gooding, N. B., & Mix, J. (2022a). Financial speculation in Canada: prevalence, correlates and relationship to gambling. *International Gambling Studies*, 1-14.
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. Oksanen, A., Mantere, E., Vuorinen, I., & Savolainen, I. (2022). Gambling and online trading: emerging risks of real-time stock and cryptocurrency trading platforms. *Public Health, 205*, 72-78.
5. Delfabbro, P., King, D., Williams, J., & Georgiou, N. (2021). Cryptocurrency trading, gambling and problem gambling. *Addictive Behaviors, 122*, 107021.
6. Mills, D. J., & Nower, L. (2019). Preliminary findings on cryptocurrency trading among regular gamblers: A new risk for problem gambling? *Addictive behaviors, 92*, 136-140.

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