

Hasty high rollers: Assessing the role of impulsivity in individuals with gambling disorder and problematic cocaine use

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INTRODUCTION

- Gambling disorder (GD) shares clinical and neurobiological similarities with substance use disorders (SUDs), particularly those involving psychostimulant drugs [1,2].
- Elevated trait impulsivity is an important determinant of GD and SUDs, separately [3,4].
- However, the influence of impulsivity as a shared feature of GD and SUDs has yet to be examined.
- Therefore, the aim of the current study was to clarify whether dimensions of trait impulsivity are a mutual feature of problematic cocaine use (PCU) and GD.

METHODS

Participants

- A community sample of gamblers was recruited using Amazon's Mechanical Turk (a crowdsourcing platform).
- Participants ($N = 564$) were categorized based on cocaine use risk in accordance with the criteria outlined by the World Health Organization.
 - Never-used ($n = 409$)
 - Non-problem (i.e., no intervention; $n = 102$); and
 - At Risk (i.e., intervention recommended; $n = 51$).

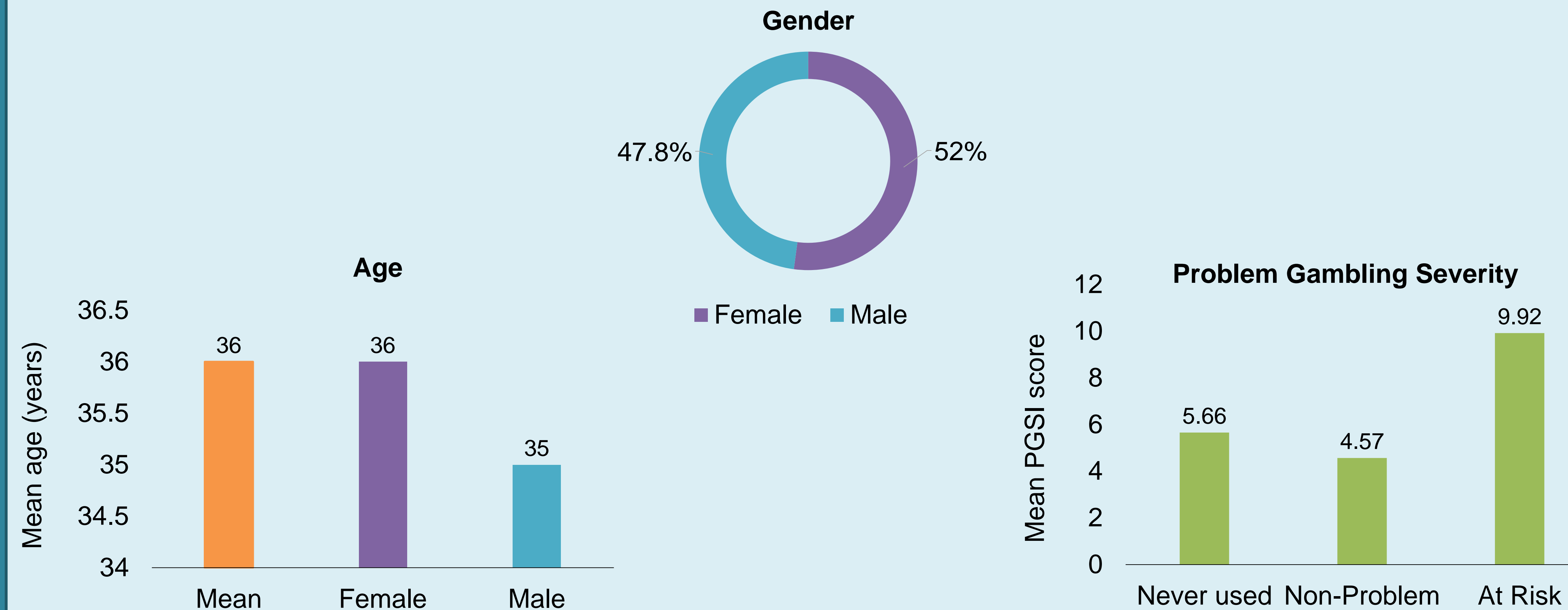
Psychosocial Measures:

- World Health Organization's Alcohol Smoking and Substance Involvement Screening Test (WHO-ASSIST)
- UPPS-P Impulsive Behavior Scale
- Depression Anxiety Stress Scales (DASS)
- Gambling Motives Questionnaire (GMQ)
- Problem Gambling Severity Index (PGSI)

Statistical Analyses

- A multivariate analysis of variance (MANOVA) was conducted to compare impulsivity, DASS, GMQ and PGSI scores between groups.

RESULTS: DEMOGRAPHICS



RESULTS: MANOVA

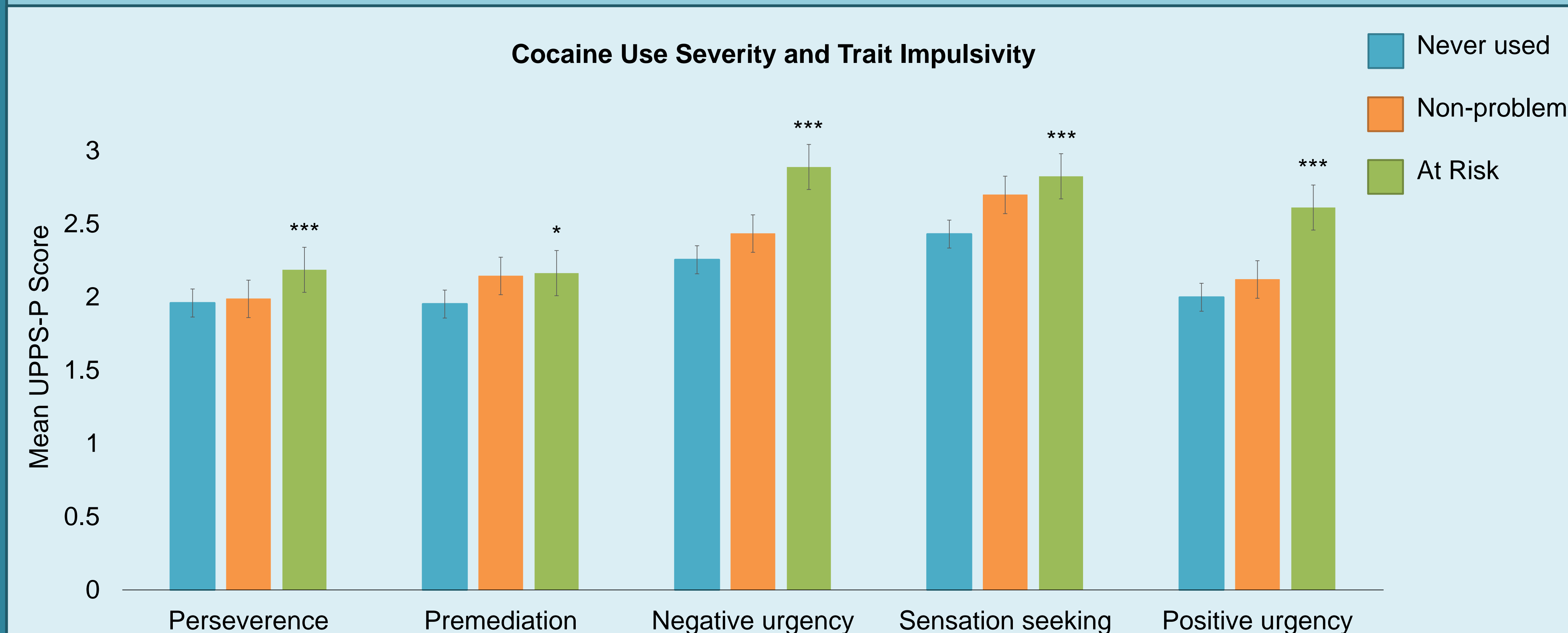


Figure 1. Mean scores in five domains of impulsivity as a function of cocaine use risk profile. *Denotes a significant difference between groups, $p < .05$. *** Denotes a significant difference between groups, $p < .001$.

The groups differed significantly for all subscales of impulsivity.

- Perseverance** $F(10, 1112) = 4.20, p = .016$.
- Premeditation** $F(10, 1112) = 7.99, p < .001$.
- Negative urgency** $F(10, 1112) = 21.80, p < .001$.
- Sensation seeking** $F(10, 1112) = 13.11, p < .001$.
- Positive urgency** $F(10, 1112) = 15.19, p < .001$.

DISCUSSION

- Results of this study suggest that GDs with PCU were more likely to:
 - score higher on measures of trait impulsivity. These results are consistent with previous research showing links between PCU and elevated trait impulsivity [5].
 - have elevated problem gambling severity scores. Elevated problem gambling severity has been linked to PCU [6], as well as other co-morbid substance use disorders (e.g., alcohol and cannabis) [7].

Future Research & Clinical Implications

- This research could aid in the development of treatment plans tailored to individuals with comorbid GD and PCU.
 - Integration of therapeutic techniques to treat impulsivity traits (i.e., emotion regulation therapy, mindfulness-based cognitive therapy).
- Substance treatment providers may benefit from training in the diagnosis and treatment of GD.
- Future research could examine the etiology, development, shared features, course and direction of relationship between GD and PCU.

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