

IMPULSIVITY AS A PREDICTOR OF GAMBLING SEVERITY IN ONLINE GAMBLERS: A SIX-FACTOR ANALYTICAL STUDY

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50

Participants
(Online Gamblers)

68%

Classified as
Problem Gamblers

10.60

Mean PGSI Score
(SD = 6.80)

88.46

Mean BIS-11 Score
(SD = 17.70)

BACKGROUND

The rapid expansion of digital technologies has fundamentally transformed gambling practices worldwide. Online gambling increases accessibility, convenience, and anonymity — contributing to a growing public mental health concern.

Globally, gambling disorder is classified as a **behavioral addiction** within the DSM-5-TR, involving impaired decision-making, reward sensitivity, cognitive distortions, and deficits in self-regulation (APA, 2022).

In Mongolia, online gambling is legally restricted yet increasingly prevalent, particularly among young adults. In 2024, over **USD 500 million** flowed out of Mongolia through illegal online gambling platforms (National Police Agency, 2025).

Despite growing concern, scientific investigations of psychological determinants of Mongolian online gambling behavior remain scarce.

OBJECTIVES

- Assess gambling severity among online gamblers
- Measure impulsivity using the BIS-11 six-factor model
- Examine whether impulsivity predicts gambling severity

HYPOTHESIS

Higher levels of impulsivity would be associated with greater gambling severity among Mongolian online gamblers.

METHOD

Design

Quantitative cross-sectional correlational design

Participants

N = 50 online gamblers; recruited via online platforms; age ≥ 18 years

Instruments

PGSI — Problem Gambling Severity Index (9 items, $\alpha = .929$)

BIS-11 — Barratt Impulsiveness Scale-11 (30 items, $\alpha = .940$)

BIS-11 SIX-FACTOR STRUCTURE

14.02 Attention	21.44 Motor	18.20 Self-Control
15.86 Cognitive Complexity	10.76 Perseverance	8.60 Cognitive Instability
Attentional Impulsivity Attention + Cognitive	Motor Impulsivity Motor + Perseverance	Non-planning Impulsivity Self-Control + Cognitive

PGSI RISK CLASSIFICATION

Problem Gambler	68% (n=34)
Moderate-Risk	16% (n=8)
Low-Risk	4% (n=2)
Non-Problem	12% (n=6)

RESULTS

KEY FINDING

The study hypothesis was not supported. Despite **68% of participants being classified as problem gamblers**, impulsivity did not significantly predict gambling severity ($r = .103$, $p = .477$; $R^2 = .009$, $p = .507$).

Correlation Analysis

PGSI and BIS-11 total scores were not significantly correlated ($r = .103$, $p = .477$). None of the six impulsivity dimensions demonstrated statistically significant correlations with gambling severity (**all $p > .05$**), although self-control showed a weak negative association ($r = -.191$).

Dimension	r	p
Attention	.054	.709
Motor	.062	.669
Self-Control	-.191	.185
Cognitive Complexity	-.125	.389
Perseverance	-.064	.661
Cognitive Instability	.033	.818

Group Differences (One-way ANOVA)

Dimension	F	p
Attention	1.072	.370
Motor	0.928	.435
Self-Control	1.035	.386
Cognitive Complexity	0.438	.727
Perseverance	1.402	.254
Cognitive Instability	0.215	.885

Regression Analyses

BIS-11 Total → PGSI: $R^2 = .009$, $F(1,48) = 0.446$, $p = .507$

Cognitive Instability → PGSI:

$\beta = .054$, $p = .709$

Non-planning Impulsivity → PGSI:

$\beta = .152$, $p = .292$

Second-order factors (combined) → PGSI:

$R^2 = .054$, $F(3,46) = 0.869$, $p = .464$

Moderation & Mediation Analyses

Moderation: **No significant interaction effects among impulsivity dimensions** ($R^2 = .088$, $p = .659$)

Mediation: *Non-planning impulsivity strongly predicted BIS-11 total* ($B = 2.30$, $p < .001$), but the indirect effect on PGSI was non-significant (BootCI includes 0)

DISCUSSION

In contrast to several previous international studies (Ioannidis et al., 2019; Yan et al., 2016; Coşenza et al., 2020), impulsivity did not significantly predict gambling severity in this Mongolian sample.

Possible explanations:

- Cultural differences** — findings may not generalize across contexts.
- Other influences** — financial, social, and cognitive factors may be more important.
- Restricted variance** — high proportion of problem gamblers (68%).
- Interaction effects** — other psychological factors may moderate gambling severity.

The main finding of this study is that impulsivity did not significantly predict gambling severity. **This suggests that gambling severity among Mongolian online gamblers may be influenced by other financial, social, and cognitive factors that warrant further investigation.**

CONCLUSIONS

Impulsivity did not significantly predict gambling severity among Mongolian online gamblers. The study hypothesis was not supported. Other psychosocial factors may better explain gambling severity.

Future research should examine:

emotional regulation • financial stress • cognitive distortions • social influences • environmental factors

This study contributes

novel evidence from Mongolia — one of the first investigations of impulsivity and gambling severity in a Central Asian context.

LIMITATIONS & FUTURE DIRECTIONS

- Small sample (N = 50) limits statistical power
- Cross-sectional design precludes causal inference
- Self-report measures susceptible to response bias
- Future studies: larger samples, longitudinal design, additional psychological constructs

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