

Loot boxes, gambling-related risk factors, and mental health: A large-scale survey of Mainland Chinese players

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EXTENDED ABSTRACT

Loot boxes can be bought with real-world money to obtain random content inside video games (Drummond and Sauer 2018). Loot boxes are viewed by many as gambling-like and are prevalently implemented globally (Xiao 2023; Xiao, Henderson, and Newall 2023; 2022; Zendle et al. 2020; 2022), including in the People's Republic of China (PRC). Previous Western and international studies have consistently found loot box spending to be positively correlated with problem gambling (Zendle and Cairns 2018; Spicer et al. 2021; Garea et al. 2021). Previous Western studies presented mixed results as to the correlations between loot box purchasing and gambling-related risk factors, mental wellbeing, and psychological distress (Etchells, Morgan, and Quintana 2022; cf. Drummond, Hall, and Sauer 2022). A large-scale survey of adult video game players from Mainland China ($N = 2,601$) was conducted through Tencent Survey to assess the relationships between loot box spending and potential gambling-related risk factors and mental health. The positive correlations between loot box spending and problem gambling, and between loot box spending and problem videogaming, were successfully replicated. However, other potential risk factors (*i.e.*, impulsivity/impulsiveness; binary past-year gambling participation status; and sensation-seeking tendencies) either did not positively correlate with loot box spending or only did so weakly. Contrary to expectations (see Garrett et al. 2023), high impulsivity was negatively associated with loot box engagement. The Risky Loot Box Index (RLI) (see Brooks and Clark 2019) most strongly positively correlated with, and was the best predictor in multiple linear regression models for, loot box spending. The RLI may be effective at measuring loot box harms cross-culturally (see Forsström et al. 2022). A surprising weak *positive* correlation was found between loot box engagement and PRC players' mental wellbeing, and high psychological distress unexpectedly *negatively* predicted loot box purchasing. No evidence was found that loot box engagement correlated

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negatively with mental wellbeing or positively with psychological distress amongst PRC video game players. In fact, there was weak support for the opposite. The practical harms of engaging with loot boxes (if any) need further elucidation. Cross-cultural research can contribute to a better understanding of loot box harms.

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