

A multidimensional concept of loss chasing for predicting gambling harm in online sports betting

What this research is about

Loss chasing is a common behaviour seen in problem gambling (PG). It occurs when people attempt to win back money that they have lost while gambling. Research has consistently shown that loss chasing is a key risk factor for PG.

Understanding why people chase losses is an important step for treating PG. However, the definition of loss chasing and how to measure it has often been different across studies. Furthermore, it is unclear if loss chasing occurs in a similar way across different types of gambling.

Recent research has focused on a multidimensional concept of loss chasing. Edson et al. (2024) examined the possibility that multiple gambling behaviours contribute to loss chasing. They defined loss chasing as accelerated betting behaviour that occurred when the prior bet was a loss. They found that loss chasing was better modelled as a multidimensional phenomenon.

While a growing body of research has improved our understanding of loss chasing, there are still unanswered questions. First, how loss chasing is best identified is still up for debate. Second, the breadth of gambling behaviours which contribute to loss chasing is still unclear. Lastly, similarities and differences in loss chasing between different forms of gambling have not been established.

The primary aims of the present study were to identify an optimized threshold for loss chasing using ROC analysis; compare multidimensional and single-dimension loss chasing in the prediction of gambling harm; and assess whether loss chasing varies across gambling environments, specifically sports betting versus daily fantasy sports (DFS). This study investigated loss trajectory (i.e., increased

What you need to know

Loss chasing happens when people try to win back money that they had previously lost while gambling. Although loss chasing is an important risk factor for identifying problem gambling, it is still unclear if it is best captured by one gambling behaviour or multiple behaviours. In this study, the researchers analyzed data collected from people who bet on sports and those who gambled on daily fantasy sports (DFS). They examined if there were thresholds for different dimensions of loss chasing that would best predict gambling harm. Loss chasing was defined with three dimensions: bet size, betting odds, and time between bets.

The researchers found that for sports betting, the optimized cutpoints informed by ROC analysis for two dimensions of loss chasing (bet size and betting odds) best predicted loss trajectory (i.e., increased losses over time). While each dimension of loss chasing could be used to predict loss trajectory on their own, the combination of all three into a single model yielded poor model fit. The effects of loss chasing were less apparent for another outcome—percentage change in net losses—and among DFS players.

losses over time) and percentage change in net losses (from month to month) as outcomes.

What the researchers did

The researchers analyzed data from two existing datasets. The first dataset came from bwin's sportsbook platform and included 36,325 customers who subscribed in February 2015. The dataset included transactional records since the registration date to July 11, 2020. Most customers were male (90.8%), and the average age was 29.8 years old. The

second dataset included 34,594 DFS players who made their first deposit on DraftKings in 2013, 2014, and 2015. The researchers also examined data on voluntary self-exclusions (VSEs) for both datasets, to determine optimized thresholds for loss chasing.

What the researchers found

Loss chasing was defined with three dimensions: bet size, betting odds, and time between bets. The researchers found that for sports betting, ROC analysis-informed optimized cutpoints for two dimensions of loss chasing (bet size and odds) best predicted loss trajectory. For time between bets, the median cutpoint was the best fitting. Therefore, these discrete cutpoints had greater predictive power than continuous form of loss chasing. This suggests that loss chasing above a certain threshold increases the risk of harm, but chasing anywhere above that threshold may not necessarily make things worse. While each dimension of loss chasing could be used to predict loss trajectory on their own, the combination of all three into a single model yielded poor model fit. The effects of these dimensions of loss chasing were less apparent for percentage change in net losses.

In the case of DFS, the researchers did not find a relationship between loss chasing and either loss trajectory or percent change in net loss.

The findings suggest that loss chasing may be best captured by multiple gambling behaviours, but this could differ across different types of gambling.

How you can use this research

The findings from this study could be of interest to researchers and clinicians. This study adds knowledge to the growing body of research on loss chasing in gambling. Of note, it builds upon previous studies that have attempted to distinguish unidimensional vs. multidimensional loss chasing. It was found that for sports betting, several expressions of loss chasing (i.e., bet size, odds, time between bets) were associated with mounting losses over time. For clinicians, this information could be helpful for discussing potential triggers of loss chasing with their clients.

About the researchers

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