RESEARCH QUESTIONS
How do gamblers with varying degrees of problem gambling severity cope with self-conscious emotions (i.e., guilt and shame), following gambling loss episodes?

PURPOSE
To date, very little research has been conducted on the emotional consequences of gambling. The purpose of the present study was to apply psychological research on guilt and shame, and the theoretical framework of coping, into the domain of gambling loss.

HYPOTHESIS
Problem gambling severity would be more strongly associated with the experience of shame than guilt following gambling loss. Problem gambling severity would be strongly associated with the use of avoidant coping strategies following gambling loss and minimally associated with non-avoidant-oriented coping strategies. The intensity of shame following gambling loss would be positively associated with the use of avoidant coping strategies, whereas the association between the intensity of guilt and avoidant coping strategies would be minimal. The intensity of shame would mediate the association between problem gambling severity and the use of avoidant coping strategies. Chasing losses would be positively associated with shame and minimally or negatively related to guilt.

PARTICIPANTS
Participants were 284 (62% males) residents of Ontario, Canada who were at least 23 years of age and had spent at least $80 on a single gambling occasion within the last 3 months, which they felt bad about. Approximately 39% of participants were under age 30, 26% were aged 30-39 years, 24% were aged 40-49 years, and 13% were aged 50 plus.

PROCEDURE
Participants were recruited through ads in community centers in three mid-sized cities in southern Ontario, Canada, and through ads in regional newspapers and online bulletin boards. Participants were asked to describe a recent gambling loss and complete a self-report measure of emotions experienced. Participants also completed self-report measures of coping strategies, and gambling behaviour.

MAIN OUTCOME MEASURES
Emotions experienced following gambling loss were assessed with a set of emotion adjectives, rated on a 7-point scale, which consisted of 3 guilt items, 4 shame items, 2 ambivalence items, and 7 positive feeling items. The extent to which the amount of loss was a violation of their self-imposed limit was assessed via two questions (i.e., I exceeded the monetary limit that I had set for this gambling occasion, and I felt like I had failed to meet this limit). The 21-item Coping Scale assessed coping efforts related to negative emotions in the gambling loss context. Two items assessed the extent to which participants attempted to chase losses following the gambling loss episode they reported: the extent to which “they decided to gamble in the following days or weeks in order to recoup the money they lost,” and “they tried to borrow money from others or get money some other way in order to gamble and recoup this loss”, both on a 5-point scale. The Problem Gambling Severity Index of the Canadian Problem Gambling Index assessed the frequency of engaging in thoughts and behaviors commonly associated with problem gambling within the last 12 months.

KEY RESULTS
The hypothesis that problem gambling severity would be more strongly associated with the experience of shame than guilt following gambling loss was supported. Further, the use of non-avoidant-oriented coping, as well as avoidant coping, was more frequent as the risk of problem gambling was higher. The only exception to this was the rationalization strategy. Problem gambling severity was more strongly associated with the use of avoidant coping strategies, namely, wishful thinking, non-disclosure, and mental distortion of loss, than the use of non-avoidant-oriented coping strategies following gambling loss, providing support for the second hypothesis. The hypothesis that the intensity of shame would be more strongly associated with the use of avoidant coping
strategies than the intensity of guilt was also supported. The only exception was wishful thinking, which was associated with guilt as well as shame. The experience of shame upon gambling loss partially accounted for the effect of problem gambling severity on the use of avoidant coping. In contrast, the experience of guilt did not account for the association between gambling severity and avoidant coping. Chasing-related thoughts were positively associated with the intensity of shame, whereas it was negatively correlated with guilt.

LIMITATIONS
The coping scale enabled the authors to assess coping efforts specific to the gambling loss context; however, the scale needs to be refined and validated against a separate sample. All variables were collected in a retrospective survey and the findings may be subject to common method bias and memory bias. The cross-sectional survey did not allow for exploration of the temporal order of coping efforts. A temporal sequence of coping strategies merits future investigation since it is important from both theoretical and practical standpoints.

CONCLUSIONS
The present study provides strong evidence that gamblers use more avoidant coping strategies to deal with shame than guilt following gambling loss. The findings provide important theoretical contributions to the research of self-regulation failure and addiction. The study also has clinical implications and suggests that one important difference between problem gamblers and gamblers with lower risk is problem gamblers' repeated experience of shame and the use of avoidant coping in response to gambling loss. Considering that the use of maladaptive avoidant coping strategies is strongly associated with the experience of shame, clinicians are advised to address problem gamblers' experience of shame after gambling loss by encouraging them to adopt an attribution style associated with guilt.

KEYWORDS: shame, guilt, coping, self-conscious emotions, gambling loss, self-regulation failure

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