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The Role of Positive Emotions and Positive Urgency in Gambling: A Scoping Review

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Abstract: Problem gambling, the degree that leads to harm and/or disrupts life pursuits, is often associated with experiences of positive emotion. However, it is currently unclear what specific positive emotions are involved with this outcome. Positive urgency, a positive emotional dimension of impulsivity, has also been linked with problem gambling. The current scoping review aimed to synthesise existing literature examining positive emotion, impulsive positive urgency, and problem gambling. This review also sought to identify gaps in knowledge and highlight areas for potential future research. *A priori* inclusion and exclusion criteria were used to determine the eligibility of studies. A total of (n = 18) eligible peer-reviewed studies, with 11 investigating positive emotions and seven investigating positive urgency, underwent synthesis. Excitement, enjoyment, and passion were distinct forms of positive emotions involved in problem gambling, with problem gamblers more likely to experience higher levels of these emotions compared to non-problem gamblers. Positive urgency was also an important predictor of problematic gambling, with problem gamblers also reporting high levels of this trait compared to non-problem gamblers. Existing research is currently constrained by male-based samples and over-reliance on cross-sectional self-reported methodologies. Thus, the current review highlights the importance of longitudinal, qualitative and gender-diverse research in order to develop a more holistic understanding of the roles and mechanisms linking positive emotions to problem gambling

Keywords: Problem Gambling, Impulsivity, Positive Emotions, Positive Urgency, Scoping Review.

Introduction

Problem gambling is defined as gambling to the degree that leads to harm and/or disrupts life pursuits (McMillen & Wenzel, 2006). A recent systematic review and meta-analysis examining gambling in 68 countries and territories estimated that 2.3 billion adults had gambled at least once in the past year, with 8.7% engaging in risky gambling and 1.41% engaging in problematic gambling (Tran et al., 2024). Problem gambling is commonly recognised as the precursor or subclinical form of gambling disorder (Nower et al., 2013). Gambling disorder, previously known as "pathological gambling", is classified under the *Substance-Related and Addictive Disorders* category within the *Diagnostic and Statistical Manual of Mental Disorders-5-Text Revised* (DSM-5-TR) and is defined as "persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress" (APA, 2022, p.661). Estimates suggest that the global prevalence of problem and disordered gambling in adults is approximately 1.29% (see Gabellini et al., 2023), with some researchers suggesting that 0.2 to 57.5% of adolescents met the criteria for some form of problem or disordered gambling (see Calado et al., 2017; Montiel et al., 2021). With the shift in diagnostic terminology, the term "disordered gambling" will be used in place of "pathological gambling" throughout this study when referring to individuals specifically diagnosed with gambling disorder. Also, for brevity, "problem gambling" will be employed as an umbrella term when referring to gambling that results in harm (i.e., problem or disordered).

Research suggests that negative emotions can perpetuate problem gambling severity and frequency (e.g., Jonsson et al., 2017; Tessier et al., 2024). Problem gambling can be understood as an escape-based coping mechanism against experiences of negative emotions (see Aldao et al., 2010; Blaszczynski & Nower, 2002; Stewart & Zack, 2008). Conversely, researchers have also observed that experiences of positive emotion can increase reckless gambling (Cummins et al., 2009) and problem gambling propensity (Mercer & Eastwood, 2010). Notwithstanding this, there has been relatively minimal research investigating positive emotions and problem gambling, with the majority of research focusing on negative emotions. As such, the current scoping review focuses on reviewing the existing literature surrounding experiences of positive emotion, positive urgency, and problem gambling.

Theories of Emotion

While there remains a lack of a unified definition of emotion, this concept is generally understood as a series of complex patterns, physiological shifts and behavioural responses triggered by a stimulus (Izard, 2009; Mason & Capitanio, 2012). Emotional episodes are also recognised as a key characteristic of emotion, which are suggested to contain key components, namely a cognitive component, a feeling component (i.e., emotional experience), a motivational component, a

somatic component (i.e., physiological responses), and a motor component (i.e., behavioural expression). These components are noted to be tied to certain functions, such as "stimulus evaluation" (i.e., cognitive), "monitoring" (i.e., feeling), and "preparation for action and the action" (i.e., somatic/motor) (Moors, 2009). Despite this, conjecture remains surrounding the function of emotion, with some researchers following the theory of "basic emotion theory", which suggests that emotions function as evolved adaptations (see Ekman, 1999; Keltner et al., 2019; van Heijst et al., 2025). In contrast, others endorse the idea that emotions are "constructed" through past experiences and are driven by an individual's physiological state and immediate environment (Barrett, 2017; Barrett et al., 2025; Shaffer et al., 2022). A constructed approach to understanding emotions also suggests that mechanisms of allostasis lead to ad-hoc decisions, resulting in momentary signal design for efficiency and action (see Barrett, 2006a; Barrett et al., 2025; Shaffer et al., 2022). Despite the equivocal research, emotion theorists propose that emotions contain both quantity (i.e., intensity) and quality (i.e., positive or negative valence) (Moors, 2009).

Within the extant literature, several prominent theories have been proposed to explain emotion and emotional experiences. For example, the James-Lange theory of emotion, a feeling theory (i.e., a theory that associates emotion with emotional experience), posits that emotions are subjective experiences resulting from the somatic bodily responses to stimuli (Cannon, 1927). Within this theory, bodily responses precede emotional experience, with an emotional response determined by the specific response pattern elicited by the stimulus (Lange & James, 1922; Moors, 2009). Building on the James-Lange theory, Schachter (1964) proposed a two-factor model of emotion. Within this theory, the initial step involves physiological arousal and cognitive interpretation/ labelling. Specifically, the cognitive interpretation is outlined to produce a specific emotional experience (Schachter, 1964). Retaining Schachter's (1964) dual approach, appraisal theories of emotion detail that cognition is involved in the unconscious elicitation of emotion (Arnold, 1960), with emotions triggered by an individual's evaluations of their environment, as opposed to the environment itself (Moors, 2009; Ortony et al., 1988; Smith & Ellsworth, 1985). Although appraisal theories differ from Schachter's (1964) dual approach. Namely, these theories suggest that the cognitive component of emotion occurs after the stimulus is presented and prior to the somatic response (Moors, 2009). Therefore, in this context, an individual's cognitive response determines whether a stimulus leads to an emotion. More recently, the "core affect" theory (Russell, 2003) proposes that neurophysiological and conscious experiences combine to form "affective quality". This affective quality of stimuli results in a state of core affect, containing both valence/arousal and a conscious component (Russell & Barrett, 1999). Extending upon core affect theory, Barrett's (2006b) "conceptual act theory" also suggests that neurophysiological states and

conscious experience lead to core affect. However, Barrett (2006b) suggests that core affect is not a specific emotion, but instead a form of perception influenced by factors such as previous experiences, mood state and learning behaviour (Barrett, 2006b).

Beyond the concept of emotion, one of the most common theories regarding emotion and emotional valence is the *Affective Circumplex Model,* developed by Russell (1980), which proposes that states arise from two independent neurophysiological systems: valence (i.e., a continuum of pleasure and displeasure) and arousal/activation. Within this two-dimensional circular space, emotional states are understood as a combination (linear or varying) of these two dimensions (Russell, 1980). Linear emotional experience is seen as the combination of the valence and arousal systems, with each system either gradually increasing or decreasing. For example, the transition from frustration to calmness represents a linear path, whereby valence increases whilst arousal decreases. In contrast, varying emotional experiences involve fluctuations (small or large) in valence and arousal levels. For instance, a transition from excitement to fear illustrates a lateral shift in valence, with the high state of arousal remaining constant, although the hedonic quality shifts from positive to negative.

While the affective circumplex model maps the dimensions of emotional experiences, it is limited in its ability to explain the motivational processes that drive an individual's emotions. *Reversal Theory* (Apter, 1989), however, explicitly focuses on delineating the link between an individual's motivation, arousal, and emotional experiences. In particular, reversal theory describes four pairs of opposite meta-motivations: "telic" (goal-oriented) and "paratelic" (sensation-oriented); "autic" (self-interest) and "alloic" (interest of others); "conformist" (confirmative) and "negativistic" (rebellious); and "mastery" (control) and "sympathy" (cooperation) (Apter, 1989). This approach suggests that an individual's behaviour is fluid, resulting not solely from arousal, but the interaction between arousal and sudden shifts in motivational states (Apter 1989, 2001). In a gambling context, high arousal may trigger a reversal from a goal-oriented (i.e., telic) motivation, such as adherence to money limits, to a paratelic state. As such, the intention for an individual to stick to their preset money limits is overwhelmed by the paratelic urge to seek out sensations and thrills. This shift aligns with dual process theories, such as the Reflective-Impulsive Model (RIM; Strack & Deutsch, 2004, 2014), which posits that human behaviour is the product of two interacting yet opposing systems. Particularly, the impulsive system (i.e., system 1) is driven by quick decisions, operating through a "bottom-up" approach, whereby an individual's behaviour changes, whereas the controlled/reflective system (i.e., system 2) follows a "top-down" approach and involves conscious and logical decisions (Strack & Deutsch, 2004, 2014). In a gambling context, system 2 may be active when an individual enters a gambling venue with the intention to follow a set spending limit. However, external cues (e.g., sounds of a gambling machine) or internal

affective states (e.g., the desire to enhance positive affect) may lead system 1 to dominate system 2, in turn, resulting in impulsive and reckless gambling.

Overall, theories of emotion recognise arousal as a fundamental driver of human experience and suggest that emotions are dynamic rather than static. Although, these frameworks also offer different perspectives on how these emotions function. Nevertheless, each theory can be collectively employed to illustrate how emotional experiences and motivational shifts drive and maintain an individual's gambling behaviour. For instance, within a gambling session, the circumplex model could be used to explain the fluctuations in arousal and emotional valence that manifest from gambling outcomes (e.g., wins). Furthermore, changes in arousal and valence may also be influenced by motivational "reversals," in which an individual shifts from a goal-oriented focus to a sensation-seeking state.

With this, the expression and regulation of positive emotions have often been linked to a range of problematic behaviours, including alcohol use (Guinle & Sinha, 2020; Paulus et al., 2017), illicit substance misuse (Hand et al., 2024; Stellern et al., 2023), inhalant use (i.e., smoking and vaping) (Rogers et al., 2018) and gaming (Lin et al., 2023; Schettler et al., 2024; Stoeber et al., 2011). In particular, positive emotions have also been closely associated with the aetiopathogenesis and exacerbation of problem gambling (e.g., Atkinson et al., 2012; Barrault et al., 2018; Morasco et al., 2007; Ruiz de Lara et al., 2019; Rogier & Velotti, 2018; Young & Wohl, 2009).

Positive Emotions, Affect and Problem Gambling

Positive emotion refers to pleasant *feelings*, such as happiness and joy, that arise in response to an internal and/or external stimulus (Yin, 2019), while positive affect relates to the degree to which an individual experiences positive *mood* states (Peterson, 2006). Evidence suggests that individuals who engage in risky or problematic gambling tend to show greater emotional reactivity (positive and negative) towards their gambling (Cholewick & Bennett, 2025; Kovan & Yıldırım, 2025; Rogier et al., 2020). Similarly, the anticipation and experiences of positive emotions have also been identified as a key emotional trigger for problem gambling (Cornil et al., 2018; Gillespie et al., 2007; Molander et al., 2022). Interestingly, an individual's gambling preference has also been tentatively linked to experiences of positive emotions. Research by Balodis et al. (2014) and Navas et al. (2017) also indicates that strategic (Type I) gamblers exhibit greater sensitivity to positive emotional experiences and rewards compared to non-strategic (Type II) gamblers.

Several studies have also outlined a significant relationship between difficulties in emotion regulation and lack of control over gambling (e.g., Jauregui & Estevez, 2020; Maniaci et al., 2017). The combination of these factors has been shown to increase an individual's overall problematic gambling (Panayiotou et al., 2023; Tessier et al., 2024). Problem gamblers

also tend to report greater impairments in emotional clarity and a higher level of lack of control compared to non-problem gamblers (Pace et al., 2015; Williams et al., 2012). In some cases, emotional dysregulation has also been associated with erroneous gambling cognitions (e.g., cognitive bias) (Buen & Flack, 2022; Estévez et al., 2021; Jara-Rizzo et al., 2019; Thurm et al., 2023) and illusions of control (Jara-Rizzo et al., 2019).

Positive Urgency and Problem Gambling

The personality trait of impulsivity is also recognised as a central feature of problem gambling (see Blaszczynski & Nower, 2002; Ioannidis et al., 2019; Loxton et al., 2008; Maclaren et al., 2011). Impulsivity can be defined as the sudden urge to act, often without deliberation (Hodgins & Holub, 2015). While multiple models of impulsivity have been developed, the eponymous *Urgency* (negative) – *Premeditation* (lack of) – *Perseverance* (lack of) – *Sensation Seeking* – *Positive Urgency* (UPPS-P) - *Impulsive* Behaviour Scale (Lynam et al., 2006) model has been a focal point in problem gambling literature. This five-dimensional model is widely used as it aligns with current conceptualisations of impulsivity as a multidimensional construct rather than a unidimensional one. Namely, researchers suggest that positive urgency (i.e., the tendency to act rashly and the difficulty in regulating strong positive emotions, Cyders et al., 2007) may be key to understanding the development and progression of problem gambling. Positive urgency has been observed as one of the most robust predictors of problem gambling (see Blain et al., 2015; Marmurek & Cooper, 2023; Rogier et al., 2022; Willie et al., 2022). Several studies have also found positive urgency to be the stronger predictor of problematic gambling than negative urgency (i.e., the tendency to act rashly under intense negative affect) (e.g., Canale et al., 2015, 2016; Willie et al., 2022).

Whilst limited, some researchers have also identified positive urgency as a significant longitudinal predictor of problem gambling (in college students) compared to the remaining dimensions of the UPPS-P (see Cyders & Smith, 2008). Despite the lack of available evidence, it can be argued that the link between emotions (positive and negative) and problem gambling may be bi-directional. Specifically, chasing supports this notion, with gamblers often observed to chase losses out of anger and frustration, and chase wins to enhance or experience positive emotions. Thus, the repeated engagement in chasing behaviours over time and within gambling sessions may serve to intensify the emotional states an individual experiences when gambling. This could theoretically lead to a reinforced and continuous cycle where gambling triggers an emotional response, resulting in increases in problem gambling propensity, culminating in increasingly dysregulated emotional and gambling patterns.

The Current Study

While positive urgency is argued to be an important factor involved in an individual's gambling, very little is known about the link between

positive emotions and problem gambling. Further, given the demonstrated role of positive emotions in problem gambling from both a theoretical and clinical perspective, the empirical literature surrounding positive emotion and affect and problem gambling, overall, remains underdeveloped. Additionally, while past research has outlined the importance of positive emotions in behaviours, such as alcohol and drug use (Bresin et al., 2024; Cheetham et al., 2010; Guinle & Sinha, 2020; Hand et al., 2024; Paulus et al., 2017) and problematic smartphone use (Cheng et al., 2024; Marty-Dugas & Smilek, 2020), there remains little research regarding the direct link between positive emotions/affect and problem gambling. Further, while reviews in the areas of emotion and problem gambling have occurred (e.g., Estupiñá et al., 2024; Marchetti et al., 2023; Neophytou et al., 2023), most have examined emotional dysregulation or negative affect, and typically fail to explore positive emotions and/or positive urgency (e.g., Dowling et al., 2017; Maclaren et al., 2011; Velotti et al., 2021). The few reviews in this area have often employed a narrow focus, concentrating on only specific forms of these constructs (e.g., Morvannou et al., 2018b; Wu et al., 2023). As scoping reviews are primarily used when the literature surrounding a body of research lacks clarity, the use of a scoping review was justified as the existing body of knowledge on problem gambling, positive emotion, and urgency currently lacks structural coherence. Furthermore, given the broad nature of the proposed research questions, a scoping review enabled authors to map key concepts, identify gaps, and provide an overview of the available empirical literature, which, to date, has not been reviewed or systematically synthesised. Considering these gaps in knowledge, the current scoping review aimed to answer the following key questions:

1. "*What forms of positive emotion have been studied in relation to problem gambling?"*
2. *"How do experiences of positive emotion impact problem gambling?"*
3. *"How does positive urgency impact problem gambling?"* and
4. *"What areas and/or gaps in knowledge require further research and clarification?"*

Method

Search Protocol

This current scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-analysis Extension for Scoping Reviews (PRISMA-ScR) (Tricco et al., 2018). The research team, with backgrounds in psychology and public health, were all involved in the reviewing process.

Search Strategy

The databases of PsycINFO, PubMed Central, PsycProQuest and Academic Search Elite [EBSCO] were used for this review. Each database was searched independently by the first author. The search formatting was adjusted to align with the specific search functionalities of each database,

with the full search strategy initially developed for EBSCO and then adapted for the syntax of each remaining database. Prior to reviewing the literature, an initial search was conducted to ensure that there were no pre-registered, ongoing or current reviews (systematic or scoping) in this area. No existing reviews were found. The first author reviewed all eligible studies between August 2024 and October 2024, with a final review occurring in February 2025 to capture studies published between October 2024 and February 2025. The key search terms used for this scoping review are presented in Table 1.

Table 1

Search Terms

Concept	Search terms
Gambling	*"gambl*" or "gamblers" or "problem gambling" or "problem gamblers" or "problematic gambling" or "disordered gambling" or "pathological gambling" or "gambling pathology" or "gambling disorder" or "emotional gambling" or "impulsive gambling" or "problematic gambling behaviour" or "problem gambling propensity" or "gambling motives" AND*
Positive Emotion and Affect	*"amusement" or "calm" or "calming" or "confidence" or "enjoyment" or "excitement" or "fulfilment" or "fun" or "happiness" or "happy" or "harmonious passion" or "hedonic" or "hedonic experiences" or "hope" or "joy or "love", or "obsessive passion" or "pleasant emotions" or "pleased", "positive affect" or "positive affectivity" or "positive emotions" or "positive feelings" or "pride" or "relaxation" or "relax" "relief" or "satisfaction" or "serenity" or "solace" or "thrill" OR*

Positive Urgency	*"emotional urgency" or "extreme positive emotions" or "impulsive dimensions*" or "*impulsive urgency" or "impulsivity" or "intense positive emotion" or "positive urgency" or "UPPS-P" or "urgency" or "urgency facets"*

Search terms were selected through deliberation with the research team, dictionary searches, and the first author's own review of the literature. The literature search was conducted across electronic databases using a comprehensive combination of positive emotion/urgency and gambling-related key terms connected by Boolean operators ("AND", "OR"). The reference lists of studies were also examined (i.e., backwards citation searching) to identify any additional potential publications. The search terms included various combinations of keywords, such as:

- ("positive urgency" AND "gambling" OR "gamblers" OR "impulsive gambling" OR "problematic gambling behaviour" OR "gambling motives"),
- ("excitement" AND "OR "problem gambling" OR "disordered gambling" OR "disordered gambling"),
- ("positive feelings" AND problem gambling" OR "emotional gambling" OR "impulsive gambling" OR "disordered gambling" OR "gambling motives").

Eligibility Criteria

The inclusion criteria were based on the following: year of publication (i.e., published from 2000 onwards), participant characteristics (i.e., demographics), study design, assessment (i.e., measures utilised to assess positive emotions/urgency), outcome (i.e., key findings), and availability (i.e., published in a peer-reviewed scientific journal and available in English or an English translation). While it is acknowledged that earlier studies may offer foundational insights, the year 2000 was chosen as a cut-off to allow authors to capture literature reflecting contemporary research surrounding understandings of problem gambling and positive emotional experiences. This timeframe also aligns with the scope and objectives of the present review, ensuring accuracy regarding the current conceptualisation of problem gambling while maintaining a representative volume of available literature for potential synthesis. The inclusion and exclusion criteria used in the current scoping review are presented in more depth in Table 2.

Table 2

Inclusion and Exclusion Criteria

	Inclusion Criteria	**Exclusion Criteria**
Year of publication	Completed from 2000 onwards	Studies completed prior to 2000
Participants	Past Gamblers	None of the participants were gamblers
	Active adult or adolescent gamblers (treatment or non-treatment-seeking)	
	Unrestricted age limit	
Study Design	Quantitative (i.e., cross-sectional, mixed methods, longitudinal, randomised control trials, experimental and quasi-experimental).	Editorials
	Qualitative	Commentary articles
	Mixed Methods	
		Reviews (i.e., scoping, systematic, umbrella)
		Meta-Analyses
		Books
		Conference papers
		Posters
		Classification manuals
		Grey Literature
Assessment	Described and reported the gambling severity of participants.	Did not assess and/or report the gambling severity of participants
	Measured or contained a measure of problem gambling, positive emotions/affect and/or positive urgency	Did not explore the impact of positive emotions, affect or positive urgency on problem gambling.

Outcomes	Provided findings between positive emotions/affect, positive urgency, and problem gambling	Did not provide findings relating to positive emotions/affect, positive urgency and problem gambling
Availability	Published in a peer-reviewed journal	Not peer-reviewed
	Available in English or an English translation	Not available in English or an English translation

Study Selection and Data Extraction

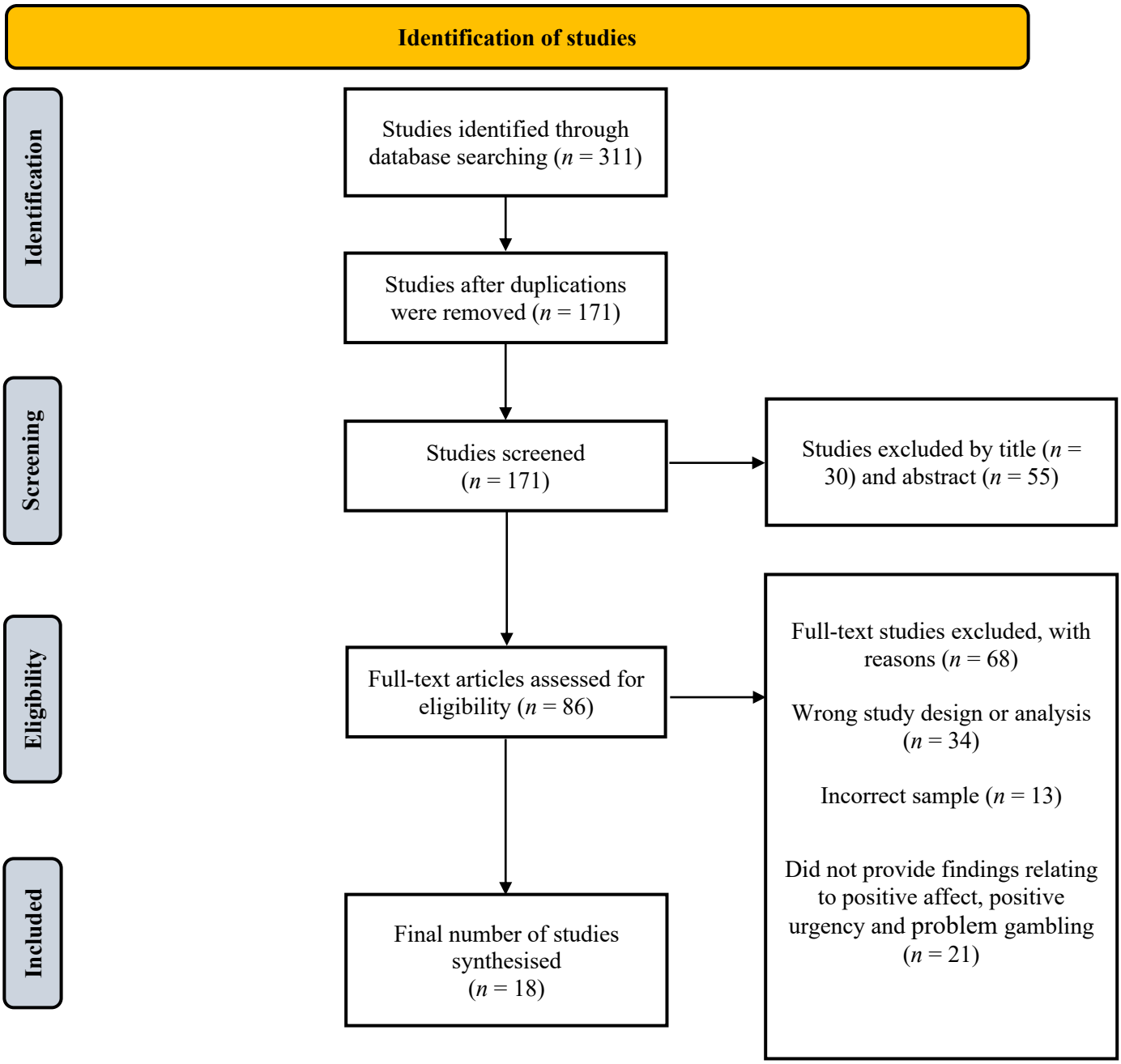
Studies were screened at two stages: an initial review of the title and abstract, followed by a full-text review. The first author completed both an independent review of the title and abstract for eligible articles and a full-text review. The second and third authors were mainly involved in stage two and reviewing the final manuscript. The PRISMA-ScR reporting guidelines were followed, with Figure 1 (PRISMA flowchart) highlighting the step-by-step study selection process. Data was extracted following a set of predefined field codes, which were used to capture and chart data from the synthesised studies. The field codes used in the current review can be seen below:

1. Abstract and full reference
2. Sample characteristics and demographic information (e.g., age, gender, gambling severity).
3. Study design (e.g., experimental, longitudinal, cross-sectional, thematic).
4. Materials (e.g., self-report questionnaires, interviews, physiological measures, behavioural tasks).
5. Findings (i.e., how positive emotions/affect and positive urgency impact and/or relate to problem gambling).
6. Study limitations

These field codes facilitated consistent data extraction across reviewers and supported a comprehensive synthesis of findings. Any discrepancies were resolved through discussion among the authors until consensus was achieved. A Microsoft Excel document was created by the first author to compile information relating to selected studies. The Excel document was designed to collect information based on the advised field codes and was populated as the first author reviewed each study. All authors had access to the Excel document, with 30% of all articles randomly selected to be independently reviewed by authors two and three.

Figure 1

PRISMA-ScR Flowchart



Data Synthesis

Data synthesis followed both descriptive and thematic analysis. Descriptive analysis was employed to capture underpinning characteristics and key features (e.g., study design and participants' gambling severity) of each study. In light of the heterogeneity in outcome measures pertaining to positive emotions and affect, thematic analysis was deemed the most suitable method for identifying recurring patterns and overarching themes. Additionally, synthesised studies were categorised based on whether

positive emotions or positive urgency were assessed. The total number of participants for each synthesised study and their gambling severity were also reported.

Results

Study Characteristics

A review of each study's titles and abstracts resulted in 86 eligible studies. After excluding 68 studies for reasons outlined in Figure 1, a final total of 18 studies remained for synthesis. Of the 18 included studies, four were conducted in Canada and Australia, four in Italy, one each in Brazil, Belgium, France, Finland, South Korea and the United States of America. 11 studies examined experiences of positive emotions/affect, while the remaining seven examined positive urgency. 12 studies included participants identified as problem gamblers, and five studies specifically examined samples of disordered gamblers. Of the 18 studies reviewed, 16 employed quantitative methods while two utilised a mixed-methods approach. 16 of the 18 studies were cross-sectional, while two were longitudinal.

The 18 studies represented a total of (n = 19532) gamblers, with 3.2% (629) as non-gamblers, 37.6% (7343) as social/recreational gamblers, 46.2% (9030) as not at-risk/non-problem gamblers, 4.1% (797) as low/at-risk problem gamblers, 2.5% or (485) as moderate risk problem gamblers, 3.3% (631) as problem gamblers and 3.1% (617) as disordered gamblers. Across the 17 studies, sample sizes ranged from (n = 31) to (n = 7517). All studies reported on gender, except for Morvannou et al. (2017), who collected data pertaining to gender but did not report this information. A total of (n = 11555) participants were males, and (n = 7957) participants were female. One participant was classified as “other”, with 18 responses outlined as “missing”. Of the studies that reported gambling severity across genders, 1737 males were recognised as problem or disordered gamblers, while 202 females were seen as problem or disordered gamblers. Results and study characteristics of the final 18 studies are presented in Table 3.

Table 3

Summary of Studies

Construct	Citation	Country	Sample	Study Design	Questionnaires and Scales	Summary of Key Findings
Positive Emotions						
	Back et al. (2011)	South Korea	*n* = 400 adults *n* = 200 recreational gamblers and *n* = 200 disordered gamblers *n* = 259 males *n* = 112 were seen as recreational gamblers and *n* = 147 seen as disordered gamblers *n* = 141 females *n* = 88 recreational gamblers and *n* = 53 disordered gamblers	Quantitative Cross-sectional	DSM-IV criteria for recreational and disordered gamblers Gambling intentions were measured by two items used in a previous study by researchers (see Back & Lee, 2005) GPS (translated from English to Korean)	Disordered gamblers demonstrated stronger positive extrinsic motivations for obsessive passion, while recreational gamblers displayed stronger intrinsic motivations for harmonious passion. Disordered gamblers showed significantly higher effects of obsessive passion on behavioural intentions, whereas recreational gamblers had higher effects of harmonious passion on behavioural intentions.
	Cornil et al. (2017)	Belgium	A total of *n* = 31 adult regular gamblers were recruited. Of the 31 participants *n* = 21 were males and *n* = 10 were females In total, n = 10 participants were recognised as at-risk problem gamblers, with n = 11 outlined as probable problem gamblers. The remaining 10 participants were seen as social/ recreational gamblers.	Mixed methods Cross-sectional	Qualitative Phase – Nine open-ended questions were generated to explore the core features and characteristics of gambling craving (e.g., *When the desire to gamble occurs (before gambling), what emotions do you experience*?) Quantitative Phase – PGSI 12 questions were generated to assess gambling triggers, and 10 questions were created to examine gambling cravings	Positive affect was more commonly noted than negative affect. Excitement was often reported before gambling (61%), diminished during gambling (26%) and quasi-absent post-gambling (6%). Joy was more frequent post-gambling (65%) than before gambling (39%) or physically gambling (26%).

				PGSI	Participants reported that positive affect (e.g., excitement and feelings of happiness) was important in triggering their gambling craving.
de Castro et al. (2008)	Brazil	*n* = 50 adult disordered gamblers (*n* = 25) males and (*n* = 25) females	Quantitative Cross-sectional	WCS PANAS-X PCS SAS-SR	Gambling cravings were inversely correlated with positive affect, suggesting that disordered gamblers gamble to cope with low levels of positive emotions and experiences. However, gambling craving was more dependent upon external factors and related to an unpleasant mood state.
Dowling et al. (2021)	Australia	*n* = 109 adults *n* = 1 other In total, there were *n* = 18 participants seen as non-problem gamblers, *n* = 24 as low-risk gamblers, *n* = 42 were moderate risk gamblers and *n* = 25 were problem gamblers. *n* = 39 males *n* = 3 were non-problem gamblers, *n* = 10 were low-risk gamblers, *n* = 16 were moderate-risk gamblers and *n* = 11 were problem gamblers *n* = 69 females *n* = 15 were non-problem gamblers, *n* = 14 were low-	Quantitative Longitudinal	B-COPE GEQ GMQ-F K6 PGSI	Enjoyment and excitement predicted the likelihood of gambling for gamblers who displayed gambling cravings or who had gambling problems. Results suggested that the anticipation of positive gambling outcomes, such as feelings of excitement and feeling good about oneself, is also associated with the development of more severe gambling.

		risk gamblers, *n* = 26 moderate risk gamblers, and *n* = 14 were problem gamblers			
Eyzop et al. (2019)	France	*n* = 130 adults In total, there were *n* = 65 disordered gamblers and *n* = 65 non-disordered gamblers. *n* = 104 males *n* = 52 were disordered gamblers and *n* = 52 were non-disordered gamblers *n* = 26 females *n* = 13 disordered gamblers and *n* = 13 non-disordered gamblers	Quantitative Cross-sectional	GMQ-F MVS-15 RSES	Happiness was illustrated to have a positive direct effect on the probability of becoming a disordered gambler. Happiness, to an extent, was also mediated by financial motives. Happiness explained most of the variance in the probability of becoming a disordered gambler.
Morvannou et al. (2017)	Canada	*n* = 159 adult poker players In total, *n* = 52 participants were seen as non-problem gamblers, *n* = 48 low-risk gamblers, *n* = 53 moderate at-risk problem gamblers and *n* = 6 as problem gamblers.	Quantitative Cross-sectional	BAI BDI DEBA - Alcohol / Drugs EIQ GPS ICROLJ PGSI Gambling behaviours were determined according to the past 12 months of participation in 18 types of gambling activities.	Participants reported more harmonious passion than obsessive passion for playing poker. Only obsessive passion was shown to predict and relate to increases in gambling problems for poker players. At-risk gamblers, when compared to non-problem gamblers, were more likely to score higher in obsessive passion.
Morvannou et al. (2018a)	Canada	*n* = 116 adults In total, *n* = 93 participants were non-problem gamblers, *n*	Quantitative Longitudinal	DEBA - Alcohol / Drugs EIQ	Only obsessive passion for poker was a predictive factor of at-risk gambling one year later. Obsessive

		= 39 low-risk problem gamblers, *n* = 22 moderate-risk problem gamblers and *n* = 1 participant was seen as a problem gambler. *n* = 99 males *n* = 77 non-problem gamblers/low risk gamblers and n = 22 moderate risk and n = 1 problem gambler *n* = 17 females *n* = 16 were seen as non-problem gamblers/low-risk gamblers, and *n* = 0 were moderate risk/problem gamblers.		GPS PGSI Risk factors generally associated with gambling problems in the literature were documented as follows: (1) Gambling behaviours were determined according to participation over the past 12 months in 18 forms of gambling activities, allowing calculation of the mean of the number of gambling activities in which poker players were involved	passion was also observed to double the risk of developing gambling problems. Harmonious passion did not predict at-risk gambling one year later from the initial assessment.
Philippe and Vallerand (2007)	Canada	*n* = 810 adults In total, *n* = 425 participants were seen as non-gamblers, *n* = 362 were without gambling problems, *n* = 13 were seen to be at-risk gamblers, and *n* = 10 were disordered gamblers. *n* = 335 males, *n* = 458 females, *n* = 17 missing data	Quantitative Cross-sectional	GPS SOGS-R	Disordered gamblers scored significantly higher on obsessive passion compared to gamblers without problems and at-risk gamblers. Obsessive passion for gambling was positively correlated with the number of symptomatic behaviours relative to disordered gambling, while harmonious passion was negatively correlated with these variables. Obsessive passion did not significantly differ between gamblers without problems and at-risk gamblers. Harmonious passion scores were lower for disordered

					gamblers compared to both gamblers without problems and at-risk gamblers.
Salonen et al. (2018)	Finland	*n* = 7305 adult gamblers (*n* = 7186) adult non-clinical gamblers and (*n* = 119) clinical adult gamblers For the non-clinical sample, there were a total of (*n* = 3450) males and (*n* = 3736) females In the clinical sample, (*n* = 85) participants were males, while (*n* = 34) were females.	Quantitative Cross-sectional	14-item Problem and Pathological Gambling Measure (PPGM) Participants were asked to report on their gambling frequency on 18 predefined gambling formats. Gambling-related harm for concerned significant others (CSO) was also evaluated through questions such as "*During 2016, has there been a person in your life that you consider gambles too much?"*	Winning money was the most common motivational factor, but the second most common factor was excitement, entertainment, and fun. Only in the youngest age group was the most common reason for gambling excitement, entertainment, and fun With this, every third gambler gambled for excitement, entertainment, and fun Men would typically gamble for excitement, to pass the time, and for fun, while women gamble for the possibility of winning money.
Southwell et al. (2008)	Australia	(*n* = 414) regular gamblers *n* = 114 males and *n* = 269 females, *n* = 1 missing data A total of *n* = 264 participants were non-problem gamblers, *n* = 82 were at low-risk of problem gambling, *n* = 61 were moderate-risk problem gamblers, and *n* = 7 were problem gamblers.	Mixed methods Cross-sectional	CPGSI Participants responded to questions surrounding their control over either their expenditure on EGMs or the length of their EGMs playtime Semi-structured interviews with all 13 Gambling Help services and the 24-hour Queensland Gambling Help Line occurred, and semi-structured interviews with other organisations also took place. These consultations support researchers in gathering information about older people's EGM gambling behaviours.	31% of participants reported gambling because it was exciting A quarter of participants reported having less control over their gambling when in a state of excitement. Problem gamblers were also more likely to be male and to be motivated to gamble by the possibility of winning money, of experiencing excitement.

	St-Pierre et al. (2014)	United States	(n = 7517) college athletes *n* = 5424 males *n* = 5077 were social gamblers, n = 173 were at risk of problem gambling and n = 172 were probable problem gamblers *n* = 2093 females *n* = 2068 were social gamblers, n = 10 were at risk of problem gambling and n = 15 were probable problem gamblers.	Quantitative Cross-sectional	Diagnostic Statistical Manual–IV–Text Revision criteria for pathological gambling, GEQ	Expectancies of enjoyment were negatively related to gambling severity, with stronger expectations of "fun" and "enjoyment" from gambling being inversely related to gambling problems. Specifically, analyses indicated that the enjoyment and arousal subscale of the GEQ predicted a decrease in gambling problems over 12 months.
Positive Urgency						
	Blain et al. (2015)	Australia	*n* = 200 adults *n* = 115 males and *n* = 85 females In total, *n* = 103 participants were not at risk of problem gambling, *n* = 49 were low-risk problem gamblers, *n* = 26 were moderate-risk problem gamblers, and *n* = 22 were problem gamblers.	Quantitative Cross-sectional	CPGSI M-C1 UPPS-P Gambling type frequency was assessed via a range of gambling activities, including horse/dog racing, sports betting, card and table games, lottery tickets, poker machines, gambling types not listed, online gambling and offline gambling/at venues or events.	Positive urgency was positively associated with problem gambling. Positive urgency (and social desirability) were the only significant predictors of problem gambling in the final model of the second regression analysis. Positive urgency was significantly related to offline gambling and was also more related to gambling activities in general.
	Canale et al. (2015)	Italy	*n* = 594 students *n* = 433 males and *n* = 161 females	Quantitative Cross-sectional	UPPS-P GMQ	Positive urgency worked through different pathways to increase gambling-oriented problems,

		A total of *n* = 443 participants were non-problem gamblers, *n* = 99 were at-risk of problem gambling, and *n* = 52 were problem gamblers.		SOGS-RA	indicating relationships between different aspects of impulsivity and gambling problems. Positive urgency and gambling problems were partially mediated by enhancement motives. Positive urgency also had a strong positive relationship with gambling problems in adolescents.
Canale et al. (2016)	Italy	*n* = 400 students, all of whom endorsed gambling activity in the last 12 months *n* = 276 males and *n* = 161 females A total of *n* = 285 participants were non-problem gamblers, *n* = 72 were at-risk of problem gambling, and *n* = 44 were problem gamblers	Quantitative Cross-sectional	UPPS-P SOGS-RA Participants were also asked to respond to 12 "yes" or "no" items assessing negative feelings and behaviours associated with gambling	Positive urgency was positively and significantly associated with higher scores on both gambling frequency and problem gambling amongst the adolescent sample
Dias et al. (2025)	Australia	*n* = 342 adults *n* = 227 males and *n* = 115 females A total of *n* = 34 participants were non-problem gamblers, *n* = 58 were low-risk problem gamblers, *n* = 115 were moderate-risk problem gamblers, and *n* = 135 were problem gamblers.	Quantitative Cross-sectional	DERS-18 DTS-SF GMQ-F IGS-10 K-6 PGSI S-UPPS-P	Participants with higher levels of positive urgency were more likely to report gambling problems than those with lower levels of positive urgency. Positive urgency was also found to moderate the relationship between enhancement motives and problem gambling.
Kim et al. (2018)	Canada	*n* = 564 adults	Quantitative Cross-sectional	GMQ-F PGSI	Both negative and positive urgency were significantly

		n = 269 males, *n* = 294 females, *n* = 1 other In total, *n* = 137 participants were non-problem gamblers, *n* = 130 were low-risk problem gamblers, *n* = 156 moderate-risk gamblers, and *n* = 141 were problem gamblers.		UPPS-P	associated with increased gambling severity scores. Positive urgency was positively associated with gambling severity. Positive urgency and gambling severity were mediated by coping motives, as opposed to enhancement motives.
Rogier et al. (2022)	Italy	*n* = 204 adults In total, there were *n* = 99 disordered gamblers and *n* = 105 non-gamblers or non-disordered gamblers. *n* = 157 males *n* = 82 were disordered gamblers while were *n* = 74 were non-problem/non gamblers *n* = 47 females *n* = 17 were disordered gamblers while *n* = 31 were non-problem/non gamblers	Quantitative Cross-sectional	DERS-P SOGS UPPS-P	Disordered gamblers scored higher on both negative and positive urgency than community gamblers. Non-acceptance of positive emotions (a subscale of the DERS-P) was no more of a significant predictor of disordered gambling severity when controlling for the variance explained by positive urgency.

Velotti and Rogier (2020)	Italy	*n* = 186 adults In total, there were *n* = 87 treatment-seeking disordered gamblers and *n* = 99 community non-gamblers or non-disordered gamblers. *n* = 148 males *n* = 73 were treatment-seeking disordered gamblers and *n* = 75 were non-gamblers or non-disordered gamblers *n* = 38 females *n* = 14 were treatment-seeking disordered gamblers and *n* = 24 were non-gamblers or non-disordered gamblers)	Quantitative Cross-sectional	PID-5 SOGS UPPS-P WOSC	Positive urgency was the only significant predictor of GD's severity out of the remaining facets of impulsivity measured by the S-UPPS-P. Problem gamblers scored higher than community gamblers on positive urgency (and the remaining dimensions of the UPPS-P). Positive urgency positively correlated with all the subscales of the WOSC except for Sharing with Others, Memory Building, Absorption and Counting-Blessing.

Note: Beck Anxiety Inventory (BAI), Beck Depression Inventory (BDI), Brief-COPE (B-COPE), Canadian Problem Gambling Index (CPGSI), Distress Tolerance Scale-Short Form (DTS-SF) , Dysregulation of Positive Emotion (DERS-P), Emotion Regulation Scale (DERS-18), Eysenck Impulsiveness Questionnaire (EIQ), Gambling Expectancies Questionnaire (GEQ), Gambling Motives Questionnaire (GMQ), Gambling Motives Questionnaire– Financial (GMQ-F), Gambling Passion Scale (GPS), Gambling Situations-Short Form (IGS-10), Inventory of beliefs related to gambling (ICROLJ), Kessler 6 Psychological Distress Scale (K6), Marlow-Crowne Social Desirability Scale Short 1 (M-C1), Materialism Values Scale -15-Item Version (MVS-15), Negative Urgency, (lack of) Premeditation, (lack of) Perseverance, Sensation Seeking, and Positive Urgency Impulsive Behaviour Scale (UPPS-P), Pathological Personality Inventory for DSM-5 (PID-5), Pennsylvania Craving Scale (PCS), Positive and Negative Affect Scale Extended Form (PANAS-X), Problem Gambling Severity Index (PGSI), 14-item Problem and Pathological Gambling Measure (PPGM), Rosenberg Self-Esteem Scale (RSES), Screening/Assessment of the Need for Help - Alcohol/Drugs (DEBA), Short - Negative Urgency, (lack of) Premeditation, (lack of) Perseverance, Sensation Seeking, and Positive Urgency Impulsive Behaviour Scale (S-UPPS-P), Social Adjustment Scale (SAS), South Oaks Gambling Screen (SOGS), Souths Oaks Gambling Screen – Revised for Adolescents (SOGS-RA), Souths Oaks Gambling Screen – Revised (SOGS-R), Ways of Savoring Checklist (WOSC), Weiss Craving Scale (WCS)

Positive Emotions and Problem Gambling - Research Question 1

Analysis of the synthesised studies revealed several forms of positive emotions that have been found to be involved in problem gambling, including *excitement*, *enjoyment*/*joy*, *happiness* and *passion*. For example, two of the 18 studies argued that excitement and enjoyment were two of the most putative forms of positive emotions for predicting and triggering gambling cravings (Cornil et al., 2017; Dowling et al., 2021). This notion was also supported by Salonen et al. (2018), outlining that excitement was the most common reason for young adult problem gambling. In addition, Cornil et al. (2017) highlighted that feelings of excitement were more prevalent before gambling; however, they diminished during and after a gambling session (Cornil et al., 2017). In contrast, experiences of joy were noted to be more frequent post-gambling compared to before or during a gambling session (Cornil et al., 2017). Among the 18 included studies, two specifically addressed happiness, also identifying it as a significant positive emotion associated with gambling cravings and the development of problem gambling (Cornil et al., 2017; Eyzop et al., 2019).

Four studies (Back et al., 2011; Morvannou et al., 2017, 2018a; Philippe & Vallerand, 2007) reported on the role of passion in problem gambling. All four studies examined passion as a binary construct consisting of *obsessive* and *harmonious* passion. Harmonious passion is described as the internal drive to actively engage in an enjoyable, beneficial and/or pleasurable activity (Vallerand et al., 2003). Conversely, obsessive passion is described as feelings of internal pressure leading an individual to engage in certain activities that can be uncontrollable and/or overwhelming (Vallerand et al., 2003). In all four studies, problem gamblers scored higher on obsessive passion compared to their non-gambling and at-risk problem gambling counterparts. In one study, obsessive passion was also found to longitudinally predict disordered gambling in both male and female poker players (Morvannou et al., 2018a), with Philippe and Vallerand (2007) arguing that passion could be a potential criterion to distinguish between recreational and disordered gamblers. When examining at-risk problem gamblers and non-problem gamblers, Morvannou et al. (2017) found that at-risk problem gamblers, compared to non-problem gamblers, were more likely to display higher rates of obsessive passion than non-problem gamblers (Morvannou et al., 2017). However, Philippe and Vallerand (2007) found no difference in obsessive passion when comparing at-risk problem gamblers to gamblers without problems. Moreover, Back et al. (2011) and Philippe and Vallerand (2007) found non-problem/recreational gamblers to score higher on harmonious passion than problem gamblers. Moreover, winning money was commonly driven by obsessive passion among disordered gamblers, whereas a sense of challenge/excitement was more related to harmonious passion for recreational gamblers (Back et al., 2011).

Impact of Positive Emotions on Problem Gambling - Research Question 2

Results revealed that gamblers experienced certain forms of positive affect at distinct periods within a gambling session. For example, Dowling et al. (2021) noted that experiences of excitement and joy manifested before a gambling session, whereas Cornil et al. (2017) advised that experiences of joy were more frequent post-gambling. One study showed passion, mainly obsessive passion, was also common before gambling (Morvannou et al., 2017). In addition, Back et al. (2011) indicated that the behavioural intentions of disordered gamblers were driven more so by obsessive passion; yet the behavioural intentions of recreational gamblers were more driven by harmonious passion. One longitudinal study found that obsessive passion functioned to maintain an individual's at-risk problem gambling propensity over one year (Morvannou et al., 2018a). Furthermore, Morvannou et al. (2017) found that obsessive passion may also influence gambling preference, with at-risk problem gamblers high in obsessive passion shown to be more likely to choose internet poker as their form of poker. However, this finding was not observed across the remaining seven reviewed studies. One study revealed experiences of happiness as a trigger for problem gambling (see Eyzop et al., 2019), with Cornil et al. (2017) also noting feelings of happiness, excitement and joy as important triggers for gambling cravings. Southwell et al. (2008) also reported that entering an excited state reduced participants' control over their gambling, with de Castro et al. (2008) also suggesting that disordered gamblers engage in gambling in order to manage and/or cope with low levels of positive emotions. Interestingly, St-Pierre et al. (2014) observed that feelings of enjoyment lead to significant decreases in gambling problems.

Impact of Positive Urgency on Problem Gambling - Research Question 3

Across all seven studies that examined the relationship between positive urgency, all found this facet to be a significant predictor of problematic gambling. Specifically, one study highlighted that positive urgency related to offline gambling and a greater level of gambling involvement in general (Blain et al., 2015). Similarly, Canale et al. (2015, 2016) and Dias et al. (2025) found that adults and adolescents with high levels of positive urgency were more likely to report gambling problems. Kim et al. (2018) also advised that high levels of positive urgency led to increases in problem gambling severity. A similar finding was also observed by Rogier et al. (2022), who reported a significant correlation between disordered gambling and increased difficulty in controlling impulsive behaviour(s) when experiencing positive urgency. Two studies advised that high levels of positive urgency reduced an individual's ability to regulate, accept and savour their experiences of positive affect (see Rogier et al., 2022; Velotti & Rogier, 2020).

Gaps in Knowledge and Areas for Future Research - Research Question 4

The present review also identified several existing gaps in the current body of knowledge. For instance, all of the reviewed studies employed self-report questionnaires. While self-report questionnaires are common, an overreliance on this form of data collection can often limit the richness, scope and overall quality of data that can be gathered. Across the 18 studies, only Cornil et al. (2017) and Southwell et al. (2008) collected data through methods other than self-report questionnaires, namely, open-ended questioning. Of the 18 studies reviewed, only Cornil et al. (2017), Salonen et al. (2018), and Southwell et al. (2008) reported findings related to a range of positive emotions. Given this, it is evident that more comprehensive data collection methods are needed to identify the specific forms of positive emotion that are the most important towards an individual's problem gambling.

Further, of the 18 assessed studies, most (16) were cross-sectional, with many suggesting that longitudinal methods would have enhanced and/or validated their respective results (see Back et al., 2011; Kim et al., 2018; Morvannou et al., 2017; Philippe & Vallerand, 2007; Rogier et al., 2022). Similarly, only Cornil et al. (2017) and Southwell et al. (2008) utilised qualitative methodologies, with several studies included in this scoping review also proposing that more qualitative-based research is needed. Specifically, Morvannou et al. (2018a) noted that qualitative research would be beneficial in elucidating how different forms of passion influence the development of gambling problems in poker players. As such, future research may adopt more longitudinal and qualitative approaches to address the current gaps in knowledge in an attempt to enhance the understanding surrounding the link between positive emotion/affect, positive urgency and gambling.

While majority of studies (16 out of 18) contained male and female participants, 11 of these studies were dominated by male participants (see Back et al., 2011; Blain et al., 2015; Canale et al., 2015, 2016; Cornil et al., 2017; Dias et al., 2025; Eyzop et al., 2019; Morvannou et al., 2018a; Rogier et al., 2022; St-Pierre et al., 2014; Velotti & Rogier, 2020). Only five studies (see Dowling et al., 2021; Kim et al., 2018; Philippe & Vallerand, 2007; Salonen et al., 2018; Southwell et al., 2008) contained more female than male participants. Although males are often more likely to gamble than females (Ellenbogen et al., 2007; Welte et al., 2015), evidence suggests that the number of female gamblers is increasing (Dowling, 2013; Wardle et al., 2017). Therefore, further research on female gamblers is necessary to both expand the existing literature and develop a more comprehensive understanding of the relationship between positive emotions and urgency in this population.

It should also be noted that no study included in this review contained a sample of gender-diverse individuals. Whilst research considering gender-diverse groups and gambling is still emerging, the

available literature suggests that individuals who identify with gender-diverse groups may be at an increased risk for problem gambling (Lee & Grubbs, 2023). However, as limited studies have explored the direct association between positive emotion/affect or positive urgency and gambling in gender-diverse groups, this is also an area of research that requires attention.

Discussion

While a limited number of studies were synthesised, experiences of excitement, enjoyment, joy, happiness and passion were all shown to be important forms of positive emotion in problem gambling. Specifically, experiences of excitement, passion (obsessive) and enjoyment were more frequently reported among problem gamblers than non-problem and social gamblers (Back et al., 2011; Dowling et al., 2021; Eyzop et al., 2019; Morvannou et al., 2017, 2018a; Philippe & Vallerand, 2007; Southwell et al., 2008). Additionally, problem gamblers were also more likely to report higher levels of positive urgency compared to non-problem gamblers (see Blain et al., 2015; Canale et al., 2015, 2016; Dias et al., 2025; Kim et al., 2018; Rogier et al., 2022; Velotti et al., 2020). Thus, findings suggest that excitement, passion (obsessive) and the tendency for rash actions under intense positive emotions (i.e., positive urgency) hold an important role in problem gambling and could also potentially distinguish between non-problem/social gamblers and problem gamblers. The current review also highlights that positive emotions may reinforce problematic gambling (see Back et al., 2011; Cornil et al., 2017; Dowling et al., 2021; Eyzop et al., 2019; Morvannou, 2018a). Despite this, only one study within the current review (Cornil et al., 2017) explored the specific emotional and behavioural changes that occurred as a result of gambling. Given this, the direct emotional changes and mechanisms that occur throughout a gambling cycle remain mostly unknown.

Nevertheless, findings indicate that both positive emotions and positive urgency may be central towards the development and maintenance of problem gambling. The affective circumplex model may offer a valuable framework for elucidating how positive emotional states may contribute to an individual's problematic gambling. Specifically, as gambling often elicits feelings of thrill and excitement, this may potentially activate both the arousal (high activation) and valence (positive affect) systems. The activation of these systems may then serve as salient motivators for repeated problematic gambling engagement. In particular, gambling may lead to a gradual increase in positive valence (e.g., amusement, enthusiasm and excitement) or a rapid increase in arousal (e.g., from relaxation to elation). This, in turn, may result in more impulsive decision-making and increase the likelihood of chasing behaviours.

With this, as positive emotions have been associated with chasing and sensation-seeking behaviours (Cummins et al., 2009; Larsen et al., 2004), these emotions may also lead to changes in motivational states, such

as a shift to paratelic or negativistic. For example, problem gamblers entering a paratelic state resulting from high levels of positive emotions may fuel an increased tolerance for risk, as the "thrill" of gambling becomes more sought after than the preservation of financial resources. Conversely, a transition into a negativistic state may trigger "chasing" behaviours driven by the thrill of defying the odds. In this state, the escalating risk and the pursuit of mastery become the primary sources of intense arousal, regardless of the financial outcomes. Through this, the high levels of arousal may inhibit an individual's reflective system (i.e., system 2), triggering the activation of an individual's impulsive system (i.e., system 1), thus driving behaviour through rapid, automatic responses rather than deliberate and volitional choice.

The prevalence of positive urgency in the gambling literature further elucidates the role of positive affective states in problem gambling. Namely, positive urgency outlines the inability to inhibit rash actions when one is strongly experiencing positive emotion (Cyders & Smith, 2008; Lynam et al., 2006). Consequently, individuals high in this trait, such as problem gamblers, often exhibit a diminished capacity to modulate positive emotional arousal (Rogier et al., 2022; Velotti & Rogier, 2020), mechanisms which are postulated in both the affective circumplex model and reversal theory. For instance, a state of high arousal (as mapped by the circumplex model) can trigger a paratelic motivational shift, with the pursuit of sensation (paratelic state) overriding an individual's ability to self-regulate (i.e., telic state), resulting in impulsive gambling behaviours, such as rapid betting or chasing. Furthermore, as high positive urgency is associated with a diminished ability to savour positive emotions (Rogier et al., 2022; Velotti & Rogier, 2020), this could also contribute to increased gambling intensity, as individuals attempt to prolong and maintain positive mood and emotional states.

Limitations and Directions for Future Research

Several limitations within this scoping review should be considered. Specifically, authors focused on peer-reviewed studies written in or available in English, excluding grey literature, editorials, conference papers, books and commentary articles. Thus, future reviews in this area may adopt more flexible inclusion criteria surrounding study design and study availability. Search terms were also limited, focusing only on positive emotions, positive urgency and problem gambling. As such, the search protocol employed within the current review was unlikely to have captured all relevant studies. Therefore, when developing search protocols for future reviews, researchers may seek to expand the key search terms and year of publication to limit unintentional omissions. The authors also did not assess the overall quality of studies and did not comment on the risk of reporting bias. While the risk of bias is not necessarily required within scoping reviews (see Tricco et al., 2018), not reporting the potential risk of bias limits the overall conclusions that can be generated from this review. Given

this, future research in this area could employ more holistic methodologies, such as meta-analyses or systematic reviews, to address this limitation.

Conclusion

The current scoping review examined the existing literature surrounding the relationship between experiences of positive emotions, affect and positive urgency towards gambling. Findings affirm that experiences of excitement, joy, and passion are positively associated with problematic gambling. Furthermore, positive urgency was also a consistent predictor of problem gambling. By conceptualising experiences of positive emotions/ urgency and problem gambling within several theoretical models and frameworks, the present review elucidates the nuanced roles these constructs play in the aetiopathogenesis of this behaviour. Findings from the present scoping review also illustrate a lack of qualitative and longitudinal investigations in the area of positive emotion, positive urgency and problem gambling. Undertaking this research could lead to a more in-depth theoretical understanding of the interaction between positive emotion/urgency and problem gambling and potentially guide the development of therapeutic interventions targeting these positive emotional experiences in individuals who engage in this behaviour.

STATEMENT OF COMPETING INTERESTS

The authors have no conflicts of interest to declare.

ETHICS APPROVAL

No ethics approval was required as this study used secondary de-identified data.

RELATIVE CONTRIBUTIONS

Chris Serafim: Conceptualisation, Methodology, Data curation, Writing- Original draft preparation, Investigation, Software, Visualisation; Writing – review & editing; **Romana Morda**: Supervision, Writing – review & editing, Supervision; **Peter Richard Gill**: Investigation, Supervision, Writing – review & editing

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RESEARCH PROMOTION

This scoping review was conducted to address the lack of clarity regarding which specific positive emotions drive problem gambling and to synthesise the role of positive urgency in these behaviours. The findings reveal that excitement, enjoyment, and passion are key emotional drivers, with high levels of positive urgency serving as a significant predictor for problematic play. This scoping review also highlights the need for longitudinal and gender-diverse research to overcome the limitations of current cross-sectional data.

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