Emotional Styles and Behavioral Addictions to Sports Betting among University Students in Douala, Cameroon.

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ABSTRACT

Behavioral addictions related to sports betting are a global public health problem, with prevalence rates ranging from 0.1 to 5.8%. In Africa, and more specifically in Cameroon, this issue remains under-researched. The objective of this study was to examine the emotional styles associated with the severity of pathological gambling among sports bettors. We conducted a quantitative cross-sectional study with 292 participants, mainly psychology students from the University of Douala, selected using convenience sampling. Data analysis was performed using Spearman's correlation test with SPSS software, setting a significance threshold of p < 0.001. The results show that emotional styles of resilience (p = 0.000), perspective (p = 0.000), and social intuition (p = 0.041) are significantly associated with pathological gambling. In contrast, styles of self-awareness, context sensitivity, and attention did not show significant correlations. The study also revealed that certain sociodemographic variables, such as age and marital status, modify the intensity of these associations. These results suggest that resilience, perspective, and social intuition play a crucial role in the development of pathological gambling and could be targets for interventions aimed at preventing excessive sports betting behavior.

Keywords: emotional profile – emotional style – pathological gambling – behavioral addiction

INTRODUCTION

Sports betting, both online and in-person, is expanding rapidly in sub-Saharan Africa, driven by digitalization, mobile internet, and accessible payment methods (Adegbola & Akanni, 2021; Olatayo et al., 2023). This growth is accompanied by an increase in gambling-related harm among young people, making it an emerging public health issue in the region (Hounou & N'Dah, 2021). Olatayo et al., 2023). This growth is accompanied by an increase in gambling-related harm among young people, making it an emerging public health issue in the region (Hounkpatin & Kouassi, 2020). In Cameroon, several qualitative and socio-anthropological studies describe the urban roots of sports betting (Parifoot) and the trajectories of young people exposed to precariousness, the appeal of soccer, and the promise of quick winnings (Nguemetchoua, 2019; Tchouala & Ngassa, 2022). These dynamics are particularly visible in Yaoundé and, by extension, in large urban centers such as Douala, where physical outlets and mobile apps coexist (Kamdem & Ewane, 2021). Psychologically, the severity of problem gambling is closely linked to difficulties in emotional regulation and cognitive distortions related to gambling (Blaszczynski & Nower, 2002; Estévez et al., 2021). Recent data indicate that emotional regulation difficulties remain directly linked to severity, while fueling false beliefs such as the illusion of control and gambler's bias, and that affective states also modulate risk-taking during gambling (Canale et al., 2019; Rogier & Velotti, 2018). This framework justifies examining stable emotional dimensions to understand vulnerability to sports betting (Davidson & Begley, 2012). However, the African literature remains fragmented and calls for a more locally grounded research agenda, particularly on urban youth and digitalized gambling environments (Acheampong, 2021; Hounkpatin & Kouassi, 2020). Regional reviews highlight the need for contextualized empirical studies, while academic work in Nigeria illustrates the impact of sports betting on students' academic lives, including accessibility, peer pressure, and persistent

distractions (Olatayo et al., 2023). This lack of detailed local data limits the design of culturally appropriate interventions in Cameroon. This study aims to analyze the association between emotional styles (six-dimensional model: resilience, perspective, social intuition, self-awareness, sensitivity to context, attention) and the severity of problem gambling related to sports betting among psychology students at the University of Douala. We hypothesize that emotional styles characterized by slower emotional recovery, a more positive emotional perspective, and lower social intuition will be significantly associated with increased gambling severity, consistent with the links established between emotional regulation, gambling cognitions, and risk behaviors (Canale et al., 2019; Davidson & Begley, 2012; Rogier & Velotti, 2018). In addition, particular attention is paid to the impact of sociodemographic variables such as age and marital status, which could modulate these relationships. Previous research has highlighted that factors such as age, marital status, and socioeconomic status can play a decisive role in addictive behaviors. For example, Petry et al. (2005) showed that young adults are more likely to develop problematic gambling behaviors than older adults. Thus, by targeting a sample of students at the University of Douala, this research seeks to shed light on the links between emotion and gambling addiction in a Cameroonian university setting. The aim is to better understand how certain emotional profiles can promote engagement in pathological behaviors, and how these behaviors can be influenced by cultural and social factors specific to Cameroon.

METHODOLOGY

Sampling

This study used convenience sampling due to practical constraints related to data collection from participants involved in sports betting. The sample size for this study was 292 participants. It consisted mainly of psychology students from the University of Douala, a group that was easily accessible and relevant to the study of the links between emotions and addictive behaviors, due to their training in psychology and their propensity to participate in academic studies. Although this method does not allow for direct generalization of the results to the entire university population or young adult sports bettors, it remains suitable for the exploratory objectives of the study, which aim to examine the relationships between emotional styles and problematic gambling behaviors within a specific group of students.

Description of study variables

This study highlights two main variables: emotional styles and pathological gambling. The operationalization of these two variables, particularly emotional styles defined according to the Davidson & Begley (2012) model, has identified six stable dimensions: resilience, perspective, social intuition, self-awareness, sensitivity to context, and attention. These styles characterize how individuals respond to emotional experiences. The resilience style reflects the ability to recover more or less quickly from negative experiences or setbacks; the perspective style describes the tendency to maintain a positive and optimistic outlook on life, even in the face of difficulties; the social intuition style is the ability to accurately perceive and interpret social and emotional cues from others (facial expressions, tone of voice, body language); Self-awareness style is sensitivity to one's own internal states: emotions, bodily sensations, thoughts; Context sensitivity style reflects the ability to adapt one's behavior and emotional responses to the social or cultural norms and expectations of the situation; Attention style reflects the ability to maintain focus on a target or object by filtering out distractions.

The operationalization of pathological gambling in terms of the severity of behavioral dependence has identified three levels of severity (according to the criteria of the Canadian Problem Gambling Index (Ferris & Wynne, 2001)): low, moderate, and high. In addition to these two main variables, sociodemographic variables such as age, gender, marital status, socioeconomic status, and number of dependent children were also taken into account.

Data collection tools

The data for this study were collected using two main measurement instruments. The Canadian Problem Gambling Index (CPGI) is a standardized instrument for measuring gambling addiction behaviors. Comprising

nine items, it assesses the severity of gambling addiction using a 4-point Likert scale ranging from 0 ("never") to 3 ("almost always") (Ferris & Wynne, 2001). The PQIP is widely recognized for its reliability and validity in international contexts and has been used in numerous studies on pathological gambling. It has demonstrated high internal reliability (Cronbach's alpha > 0.8) and good ability to distinguish between levels of addiction, from mild to severe problem gambling behaviors (Ferris & Wynne, 2001). The ICJP has also been used previously in African studies, which reinforces its relevance in the context of this research (Chevalier et al., 2004).

The Daviston and Begley Emotional Profile Assessment Scale was used to measure the six specific emotional dimensions that influence human behavior in stressful situations, such as pathological gambling. The dimensions measured are: resilience, perspective, social intuition, self-awareness, sensitivity to context, and attention. Each dimension consists of 10 items on a binary scale (0 = false, 1 = true), with scores ranging from 1 to 10 (Davidson & Begley, 2019). These six dimensions were selected because of their theoretical relevance to emotional regulation, a key factor in the management of compulsive behaviors such as sports betting. This scale has shown high reliability in similar studies conducted in West Africa, with a Cronbach's alpha of 0.85 for all dimensions (Davidson & Begley, 2019). Convergent validity has also been confirmed by previous studies, proving that the dimensions measured by the scale are well correlated with other measures of emotional regulation and psychological well-being. Each dimension has a scoring scale that identifies the dominant emotional characteristics of participants. For example, for resilience, a high score (> 7) indicates a low capacity for emotional recovery, which may be linked to greater vulnerability to addictions. A low score (< 3) in perspective indicates a negative view of life, which may promote compulsive behaviors.

Choice of statistics and analysis method

Data analysis was performed using Spearman's correlation, chosen for its relevance to categorical and non-normally distributed data. This test is suitable for examining relationships between emotional (categorical) variables and addictive behaviors (Field, 2013). Although other non-parametric multivariate methods were possible, Spearman's correlation was preferred for its simplicity and effectiveness in this context. A p-value of less than 5% was set as the threshold for significance. Multicollinearity was tested and did not reveal any significant problems, ensuring the independence of the emotional variables. A differential analysis was also performed to control for the impact of sociodemographic variables (age, marital status, etc.) on the relationships between emotional styles and gambling addiction, using the Chi-square test (χ^2). This choice is justified by the nature of the data and the need to assess the independence or association between variables, while controlling for the influence of sociodemographic variables.

Ethical issues

This study adhered to the ethical principles of research involving human participants. Informed consent was obtained from all participants, who were informed of the purpose of the study, the procedures involved, and their right to anonymity and confidentiality. Data were collected anonymously and stored securely to ensure confidentiality. Participants were also informed of their right to withdraw at any time without consequence. Psychological support resources were offered in case the study caused emotional distress. The study complies with international ethical standards, including the Declaration of Helsinki and national guidelines for research involving humans.

RESULTS

Sociodemographic characteristics of the sample

The sociodemographic characteristics of the study participants (Table 1) show that the sample is predominantly composed of young adults and males. Indeed, 68.5% of participants are male, while 31.5% are femal . In terms of age, the majority of participants (67.1%) were under 22 years old, followed by those aged 23 to 28 (23.3%) and finally those aged 28 and over (9.6%). In terms of marital status, 86.3% of participants

are single, 5.1% are married, and 8.6% are in a common-law relationship. These sociodemographic characteristics are important because they help to understand the profile of the sample and provide a context for further analysis of the links between emotional styles and gambling addiction.

Table 1: Distribution of participants according to sociodemographic characteristics (gender, age, marital status)

		Number	Percentage
Gender	Male	200	68.5
	Female	92	31
Age group	Under 22	196	67
	23 to 28	68	2
	28 years old and over	28	9
Marital status	Single	25	86.3
	Married	15	5
	Common-law	25	8

Results of inferential analysis

Correlational analysis of study variables: emotional styles and behavioral addiction to sports betting

Correlational analysis (Table 2) of the study variables revealed significant relationships between emotional styles and gambling addiction among psychology students at the University of Douala. First, the results showed a significant positive correlation between resilience style and gambling addiction ($\rho = 0.271$, $p = 0.000$). This suggests that a low level of emotional resilience, characterized by slow recovery after a setback, is associated with greater severity of pathological gambling. In addition, a strong positive correlation was observed between perspective style and addiction ($\rho = 0.780$, $p = 0.000$). This relationship indicates that those who adopt an optimistic view of life are more likely to engage in excessive gambling behaviors, probably due to the mistaken belief that gambling could bring quick gains and improve their situation. In contrast, social intuition style showed a weak negative correlation ($\rho = -0.120$, $p = 0.041$), suggesting that low social intuition, characterized by difficulty in perceiving others' emotions, is associated with increased gambling addiction. In contrast, self-awareness, context sensitivity, and attentiveness styles showed no significant correlation with gambling addiction ($p > 0.05$). These results indicate that these emotional dimensions are not reliable predictors of gambling addiction in the context of this study. In summary, these results confirm the hypothesis that specific emotional styles, such as resilience and perspective, play a crucial role in vulnerability to gambling addiction, and highlight the need for targeted intervention on these emotional aspects to prevent pathological behaviors related to sports betting.

Table 2: Analysis of the links between emotional styles and behavioral addiction to sports betting.

		Resilience style	Perspective style	Social intuition style	Self-awareness style	Context sensitivity style	Attentional style
Problem solving	Correlation coefficient	.271**	.780**	-0.120*	0	0	-0.041
	Sig.	.000	.000	0	0.132	0.161	0.486
	N	292	292	292	292	292	292

Differential analysis: controlling for the effect of sociodemographic variables on the relationship between emotional styles and pathological gambling

Differential analysis (Table 3) examined the impact of sociodemographic variables (age, marital status, etc.) on the relationship between emotional styles and gambling addiction. The results revealed that age plays a significant moderating role in this relationship. Indeed, for participants under the age of 22, emotional styles, particularly resilience and perspective, are strongly associated with gambling addiction ($\chi^2 = 43.556$, $p = 0.000$ for resilience and $\chi^2 = 133.248$, $p = 0.000$ for perspective). These results suggest that young adults are more vulnerable to problematic gambling behaviors, possibly due to less developed emotional management at this age. In addition, gender also modified the strength of the associations between emotional styles and gambling addiction, with males being more strongly affected, as shown by the chi- -square for resilience style ($\chi^2 = 44.883$, $p = 0.000$) and perspective ($\chi^2 = 127.321$, $p = 0.000$). Furthermore, marital status influenced certain associations, particularly for single participants, for whom significant relationships were observed with resilience styles ($\chi^2 = 56.646$, $p = 0.000$) and perspective ($\chi^2 = 160.118$, $p = 0.000$). In contrast, for married or cohabiting individuals, these links were less pronounced, suggesting that factors related to couplehood may moderate the impact of emotional styles on gambling addiction. These results highlight the importance of taking sociodemographic variables into account to better understand the relationships between emotional styles and gambling addiction, and underscore the need for contextualized approaches in the prevention of pathological behaviors related to sports betting.

Table 3: Analysis of the effect of sociodemographic variables on the inferential association between the study variables (emotional styles and problem gambling)

Symmetric measures using the chi-square independence test				
			Value	Approximate significance
Resilience style & behavioral addiction	Age group	Under 22	43.556	0
		22 to 28	11,806	0
		29	-	-
	Gender	Male	44.883	0
		Female	20,110	0
	Marital status	Single	56,646	0
		Married	1,607	0.205
		Common-law	10,119	0
Perspective style & behavioral addiction	Age group	Under 22	133.248	0
		22 to 28	46,444	0
		29 years old and over	-	-
	Gender	Male	127,321	0
		Female	66,810	0
	Marital status	Single	160,118	0.000
		Married	11,250	0
		Common-law	21,280	0
Social intuition & behavioral addiction style	Age group	Under 22	-	-
		22 to 28	3.778	0.151
		29 years old and over	-	-
	Gender	Male	-	-
		Female	3,833	0.147
	Marital status	Single	3.560	0.313
		Married	1,607	0.205
		Common-law	-	-

DISCUSSION

The results of this study show significant relationships between certain emotional styles and gambling addiction, and highlight the impact of sociodemographic variables on these relationships. First, resilience style is positively associated with gambling addiction ($\rho = 0.271$, $p = 0.000$), suggesting that individuals with slow emotional recovery are more vulnerable to developing problematic gambling behaviors. These results corroborate those of Blaszczynski and Nower (2002), who showed that difficulties in emotional regulation promote addiction. In addition, a strong positive correlation was observed between perspective style and addiction ($\rho = 0.780$, $p = 0.000$), indicating that individuals with an optimistic outlook on life are more likely to perceive gambling as a means of improving their situation, which is consistent with the findings of Canale et al. (2019), who highlighted the impact of cognitive distortions in the development of gambling addiction. In contrast, social intuition style showed a weak negative correlation ($\rho = -0.120$, $p = 0.041$), suggesting that low social intuition is associated with increased gambling addiction, which is consistent with the findings of Rogier & Velotti (2018), who demonstrated that the inability to perceive emotional signals from others can lead to impulsive behavior, including in sports betting.

Regarding the impact of sociodemographic variables, the results show that age moderates the relationship between emotional styles and gambling addiction, particularly among young adults under the age of 22 ($\chi^2 = 43.556$, $p = 0.000$ for resilience and $\chi^2 = 133.248$, $p = 0.000$ for perspective). These results are consistent with those of Petry et al. (2005), who found that young adults are particularly vulnerable to gambling addiction due to their less developed emotional management. In addition, gender also influenced the strength of the associations, with men showing stronger relationships between emotional styles and gambling addiction ($\chi^2 = 44.883$, $p = 0.000$ for resilience and $\chi^2 = 127.321$, $p = 0.000$ for perspective). This is consistent with the work of Ladd and Petry (2002), who emphasized that men are generally more prone to pathological gambling behaviors. In contrast, marital status showed a more moderate effect, with significant relationships for single individuals ($\chi^2 = 56.646$, $p = 0.000$ for resilience and $\chi^2 = 160.118$, $p = 0.000$ for perspective), suggesting that single individuals are more exposed to emotional risks associated with gambling addiction. These results echo the research of Blaszczynski & Nower (2002), who observed that lonely people often face greater emotional difficulties, making them more vulnerable to addictive behaviors.

LIMITATIONS OF THE STUDY

Despite its significant contributions, this study has several limitations. First, the use of convenience sampling limits the generalizability of the results to the general population of young adults or sports bettors, particularly given the specificity of the sample, which consisted mainly of psychology students at the University of Douala. In addition, the use of self-assessments may lead to social desirability bias, limiting the objectivity of responses, particularly with regard to gambling addiction. The cross-sectional nature of the study prevents the establishment of causal relationships between emotional styles and gambling addiction, which requires longitudinal research to explore these links in greater depth. It would be interesting to take these limitations into account in future research.

PRACTICAL IMPLICATIONS AND RECOMMENDATIONS

The results of this study have important implications for prevention and intervention among young adults, particularly those with emotional styles that may promote gambling addiction. It is suggested that prevention programs target specific emotional aspects such as resilience and perspective, particularly among young adults and men, who are most vulnerable to these behaviors. In addition, interventions should be contextualized to take into account sociodemographic variables, including age and marital status, in order to better meet the specific needs of each group.

CONCLUSION

This study found that certain emotional styles, such as resilience, perspective, and social intuition, are significantly associated with gambling addiction among university students in Douala. In particular, low

emotional resilience and an optimistic outlook are linked to more severe addiction, confirming the findings of previous studies. Furthermore, sociodemographic variables, including age, gender, and marital status, modulate the strength of these associations, with young adults and men being more vulnerable. However, the study has limitations related to convenience sampling and its cross-sectional design, which prevent causal conclusions. These results suggest the need for prevention programs specifically targeting the emotional styles of young adults, particularly resilience and outlook, while taking into account sociodemographic characteristics for greater intervention effectiveness.

BIBLIOGRAPHIC REFERENCES

1. Acheampong, I. (2021). A contextual analysis of gambling and its socio-cultural impact in sub-Saharan Africa: A focus on online sports betting. Journal of African Studies, 18(2), 212-229.
2. Adegbola, O., & Akanni, A. (2021). The digitalization of gambling and its impact on youth behavior in Sub-Saharan Africa: A case study of Nigeria. Gambling Studies, 37(1), 55-72.
3. Blaszczynski, A., & Nower, L. (2002). A pathways model of problem and pathological gambling. Addiction, 97(5), 487-499.
4. Canale, N., Zangrando, F., & Vieno, A. (2019). Emotional regulation and gambling behavior: A critical review. Journal of Gambling Studies, 35(2), 327-344.
5. Chevalier, S., Hamel, D., Ladouceur, R., Jacques, C., Allard, D., & Sévigny, S. (2004). Gambling behaviors and pathological gambling according to type of gambling in Quebec in 2002. INSPQ & LAVAL University, Montreal & Quebec City.
6. Davidson, R. J., & Begley, S. (2012). Emotional profiles: Understanding and living with your emotional personality. Paris: Edition j'ai lu.
7. Estévez, A., Herrero, D., & Montes, R. (2021). Emotional dysregulation and gambling behavior: A review of theoretical and empirical research. Psychology of Addictive Behaviors, 35(3), 327-340.
8. Ferris, J., & Wynne, H. (2001). The Canadian problem gambling index: Final report. Canadian Centre on Substance Abuse.
9. Hounkpatin, M., & Kouassi, S. (2020). Gambling addiction in Sub-Saharan Africa: An emerging health issue. African Journal of Addiction Studies, 10(1), 98-112.
10. Ladd, G. T., & Petry, N. M. (2002). Correlates of gambling behavior in a U.S. national sample. Addiction, 97(5), 463-472.
11. Nguemetchoua, B. (2019). The impact of the appeal of soccer on gambling behavior in Cameroon. Revue Camerounaise de Sociologie, 5(2), 20-35.
12. Olatayo, O., Adegbola, O., & Bello, M. (2023). Understanding the psychological implications of online sports betting among Nigerian youth. Journal of Youth and Sports Studies, 22(1), 50-65.
13. Petry, N. M., Stinson, F. S., & Grant, B. F. (2005). Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. Journal of Clinical Psychiatry, 66(5), 564-574.
14. Rogier, G., & Velotti, P. (2018). The role of emotional dysregulation in problem gambling. Journal of Gambling Studies, 34(1), 39-56.
15. Tchouala, M., & Ngassa, A. (2022). Sports betting and social precariousness in Douala: A sociological perspective. Revue de Sociologie Urbaine, 12(3), 145-158.