

Gambling Behaviour, Motivations, and Risk Awareness Among Adolescents in Lagos, Nigeria: A Cross-Sectional Survey

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Abstract

Background: Gambling has become increasingly accessible to young people in Nigeria, yet empirical data on adolescent gambling behaviour remain limited. Understanding patterns of engagement, early exposure, motivations, and risk awareness is essential, given adolescents' heightened neurodevelopmental vulnerability to behavioural addictions. This study examined gambling behaviour, exposure, motivations, and awareness of gambling-related risks among school adolescents in Lagos State.

Methods: A descriptive cross-sectional survey was conducted among adolescents aged 13–17 years in two randomly selected senior secondary schools within Education District VI, Lagos State. A multistage sampling approach was used, beginning with the selection of the education district, followed by the selection of schools, then classes, and finally individual students, while ensuring gender representation. 301 (response rate: ~100%) completed interviewer-administered questionnaires and a validated DSM-5–based screening tool adapted for cultural relevance. Descriptive statistics were used for the survey analysis.

Results: Participants had a mean age of 15.3 ± 1.2 years, and 50.2% were male. Overall, 29.2% had gambled, most commonly through online sports betting (40.9%) and card staking (52.2%), while 66.4% knew someone who gambled. Early exposure was common: 42.1% of those who gambled had initiated the behaviour at age ≤ 13 , primarily introduced by friends. Motivations included desire for money (50%), passing time (19.4%), and peer influence (15.9%). Although 57.8% perceived youth gambling as a serious problem, only 18.2% believed they were personally at risk. DSM-5 screening (cut-off ≥ 4) identified 4.7% as meeting criteria for gambling disorder.

Conclusion: School adolescents in Lagos showed substantial exposure to gambling and early initiation, driven by peer influence and financial motivations. Despite high awareness of risks, personal risk perception remains low. School-based gambling awareness curricula and stricter enforcement of age restrictions on betting platforms are recommended.

Keywords

Gambling, Adolescents, Motivation, Exposure, Gambling disorder, Nigeria.

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Introduction

The rapid expansion of gambling opportunities in Nigeria and globally has increased both access to gambling and societal acceptance of the behaviour. Government-regulated lotteries, televised poker tournaments, and the widespread availability of online gambling platforms have transformed the gambling landscape, making it markedly more accessible than in previous decades [1]. As a result, more adults now engage in gambling than in the past. While adult gambling has been recognized as an urgent but under-examined public health concern, its effects extend beyond the individual gambler and can negatively impact child and adolescent well-being [2].

Adolescence, in particular, represents a critical developmental period during which vulnerabilities to various addictive behaviours, including behavioural addictions such as gambling disorders, are heightened. Evidence from international studies shows that adolescents are drawn to risk-taking and rule-breaking behaviours and often underestimate the potential consequences of their actions [3]. Neurobiological immaturity further increases their susceptibility to addictive patterns, including gambling [4]. Although gambling disorder can emerge in preadolescence, adolescents consistently demonstrate higher rates of gambling involvement compared to the general population [5].

Gambling is increasingly common among adolescents worldwide. For example, Räsänen et al. [6] reported that 50–80% of Nordic adolescents had gambled within the past year, despite legal age restrictions prohibiting gambling before 18. Similar patterns have been observed in Canada, the United States, the United Kingdom, and Australia, where 60–80% of young people aged 13–17 years gamble at least once annually, and approximately 3–5% show signs of problem gambling [7]. Consequently, gambling is now recognised as one of the most prevalent behavioural addictions among youth [8].

In Nigeria, however, research on adolescent gambling remains limited, and Bankole [9], in a study among youths in Oyo and Ekiti States, found that sports betting, particularly football and basketball, was the most common form of gambling, with moderate betting reported by 64.3% of respondents. Similarly, Adebisi et al. [10] observed that some adolescents aged 15–29 engage in gambling as a coping mechanism.

The consequences of adolescent problem gambling are far-reaching. It has been linked to criminal behaviour, academic underachievement, truancy, financial difficulties, depressive symptoms, suicidal tendencies, low self-esteem, interpersonal conflicts, and substance misuse [11]. Notably, more than two-thirds of adult problem gamblers report that their gambling behaviour began during adolescence [12], highlighting adolescence as a critical period for prevention. A deeper understanding of young people's attitudes toward gambling, the factors influencing these attitudes, and their motivations for gambling despite its illegality for minors in most jurisdictions—is essential for informing

effective policy and intervention strategies.

Although gambling is prohibited for underage individuals in many countries, including Nigeria, evidence consistently shows that adolescents continue to gamble. Furthermore, gambling-like features have become increasingly embedded within video games and social media, exposing young people to gambling-related content even outside traditional betting platforms. This shift has intensified global research interest in understanding how adolescents engage with, and are influenced by, both offline and digital gambling environments.

In Nigeria, there is very little evidence of exposure to gambling among adolescents. The present study assessed the understanding of gambling behaviour and risk awareness among school adolescents in Lagos, Nigeria. The objectives were to determine the prevalence of gambling among school adolescents, assess their level of exposure to gambling, identify the motivators of gambling in them, and level of awareness of the risks involved in adolescent gambling.

Methods

Participants and Procedure

A multistage sampling strategy was used to recruit participants. First, Education District VI was randomly selected from the six education districts in Lagos State. Within this district, two senior secondary schools located in the Ikeja Local Government Area were randomly chosen. From each school, 150 students were selected through simple random sampling, giving a total sample of 300 adolescents.

Data collection was conducted using interviewer-administered questionnaires written in English, the official language of instruction in Nigerian schools. Eligible participants were senior secondary school students who: (1) were between 13 and 17 years old; (2) were able to comprehend and complete the study instruments; (3) provided written assent; and (4) whose parents or guardians provided written informed consent. Exclusion criteria were: (1) the presence of special healthcare needs; (2) acute medical illness; or (3) ongoing mental health crisis at the time of data collection.

Participation was voluntary. All adolescents provided written assent, and their parents or caregivers gave written informed consent before enrollment. The study complied with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Health Research Ethics Committee of the researchers' affiliated institutions, and official permission to conduct the study was granted by the Lagos State Ministry of Basic and Secondary Education.

Measures

Socio-demographic characteristics

Information on age, gender, class level, and the last academic

term's performance was obtained.

Gambling behaviour

Items assessing exposure to gambling, prior gambling experiences, motivations for gambling, awareness of gambling-related risks, and sources of gambling information were adapted from previously published research [13].

Screening for Gambling Disorder

A screening tool was developed by the authors based on the nine diagnostic criteria for gambling disorder outlined in the DSM-5 [14,15]. The wording of items was simplified to enhance comprehension within the local cultural and linguistic context, particularly in relation to common betting practices among Nigerian adolescents. The instrument was self-administered and scored dichotomously ("Yes" = 1, "No" = 0). A cutoff score of ≥ 4 was used to indicate the presence of a clinically relevant gambling disorder.

Analysis

Data were analyzed using IBM SPSS Statistics version 25. Descriptive statistical methods were employed. Descriptive statistics included frequencies, measures of central tendency, and corresponding measures of dispersion.

Results

Socio demography

A summary of the participants' sociodemographic characteristics is provided in Table 1. In total, 301 school adolescents completed the survey, with a mean age of 15.26 ± 1.18 years. Of the respondents, 151 (50.2%) were male. One-third (101; 33.6%) were in Senior Secondary Class 3 (SS3), and nearly half (142; 47.2%) reported good academic performance in the previous term.

Table 1: Socio-demographic distribution (N = 301).

| Variable | Category | Frequency (%) |
|------------------------------|-----------|---|
| Age (years) | | 4 (1.3) |
| | 12 | 16 (5.3) |
| | 13 | 57 (18.9) |
| | 14 | 95 (31.7) |
| | 15 | 78 (25.9) |
| | 16 | 51 (16.9) |
| | 17 | Mean: 15.26 years Standard deviation: 1.18 years |
| Gender | Female | 150 (49.8) |
| | Male | 151 (50.2) |
| Class | SS1 | 100 (33.2) |
| | SS2 | 100 (33.2) |
| | SS3 | 101 (33.6) |
| Last term school performance | Poor | 14 (4.7) |
| | Fair | 13 (4.3) |
| | Average | 65 (21.6) |
| | Good | 142 (47.2) |
| | excellent | 67 (22.3) |

Exposure to gambling

The study revealed a high level of exposure to gambling among school adolescents. Of the 301 participants, 200 (66.4%) reported knowing at least one person who gambles, and more than half (60.8%) had watched someone engage in gambling activities. Additionally, 121 adolescents (40.2%) expressed an interest in gambling. Overall, 88 respondents (29.2%) had engaged in gambling themselves and continued to do so with varying frequency. Among those who gambled, online sports betting (40.9%) and staking money on card games (52.2%) were the most commonly reported forms. Additional details are presented in Table 2.

Table 2: Exposure to gambling (N=301).

| Variable | Category | Frequency (%) |
|--|---------------------------------------|---------------|
| Know someone that gambles | No | 101 (33.6) |
| | Yes | 200 (66.4) |
| | If yes, who (n= 200) | |
| | A friend | 139 (69.5) |
| | Sibling | 13 (6.5) |
| | Parent | 2 (1.0) |
| | Relative | 5 (2.5) |
| | Neighbour | 40 (20.0) |
| | Others | 10 (5.0) |
| | Multiple options were chosen | |
| Ever watched someone gambles | No | 118 (39.2) |
| | Yes | 183 (60.8) |
| | If yes, who (n= 183) | |
| | A friend | 100 (54.6) |
| | Sibling | 5 (2.7) |
| | Parent | 5 (2.7) |
| | Relative | 8 (4.4) |
| | Neighbour | 35 (19.1) |
| | Stranger | 67 (36.6) |
| | Multiple options were chosen | |
| Ever been interested in gambling | No | 180 (59.8) |
| | Yes, interested, but didn't play | 33 (11.0) |
| | Yes, interested played a few times | 84 (27.9) |
| | Yes, interested in playing often | 4 (1.3) |
| Which of these have you played before (n = 88) | Online sports betting | 36 (40.9) |
| | Betting shop | 4 (4.6) |
| | Staked money on card games | 46 (52.2) |
| | Played more than one | 2 (2.3) |
| Interest in gambling | Never interested | 213 (70.8) |
| | Make money | 48 (15.9) |
| | Have fun or feel better | 22 (7.4) |
| | To pass the time | 7 (2.3) |
| | My friends play | 7 (2.3) |
| | Have more than one reason | 4 (1.3) |
| Parental attitudes towards gambling | I don't know their attitude | |
| | They don't know I play | 193 (64.1) |
| | They know, but we don't talk about it | 26 (8.6) |
| | They warned me is risky | 11 (3.7) |
| | They stop me, and we argue about it | 63 (20.9) |
| | They know, and they give me money | 6 (2.0) |
| | | 2 (0.7) |

Gambling experience and motivation

The findings indicate that many adolescents begin gambling at an early age. Among those who reported gambling, 42.1% had their first gambling experience at age 13 or younger. Half of these adolescents stated that they were introduced to gambling by a friend, and 29 (32.9%) had gambled one to two times per week in the past three months. Their primary motivation for gambling was the desire to win money (50.0%). Other key reasons included using gambling as a way to pass the time or relieve boredom (19.4%) and the influence of friends (15.9%). Additional details are presented in Table 3.

Table 3: Gambling experience and motivation (n= 88).

| Variables | Category | Frequency (%) |
|---|----------------------|---------------|
| Age at first gambling (years) | 10 | 3 (3.5) |
| | 11 | 1 (1.1) |
| | 12 | 11 (12.5) |
| | 13 | 22 (25.0) |
| | 14 | 20 (22.7) |
| | 15 | 13 (14.7) |
| | 16 | 15 (17.1) |
| | 17 | 3 (3.4) |
| Who did you play with the first time | Alone | 22 (25.0) |
| | With friend | 44 (50.0) |
| | With parent | 6 (6.8) |
| | With sibling | 9 (10.2) |
| | With relative | 4 (4.6) |
| In the last 3 months, how often do you gamble? | With neighbour | 3 (3.4) |
| | Almost everyday | 5 (5.7) |
| | 3-4 times per week | 5 (5.7) |
| | 1-2 times per week | 29 (32.9) |
| | Once every 2 weeks | 23 (26.1) |
| On the average, how many hours do you spend gambling? | Once a month or less | 26 (29.6) |
| | 2-4 hours | 17 (19.3) |
| | One hour or less | 71 (80.7) |
| Motivation for gambling | To win money | 44 (50.0) |
| | To spend free time | 17 (19.4) |
| | When sad or angry | 4 (4.5) |
| | Friends play | 14 (15.9) |
| | Family plays | 2 (2.3) |
| | Its fun or cool | 4 (4.5) |
| | More than one option | 3 (3.4) |

Level of awareness of adolescents about the risks associated with gambling

Most adolescents in the study (71.1%) were aware that betting by individuals under 18 years of age is illegal in Nigeria. More than half (57.8%) perceived gambling-related problems as a very serious national concern. Nearly half of the respondents believed that gambling often results in financial losses or the loss of personal belongings, while 58 adolescents (19.3%) felt it could lead to conflicts within the family.

Despite this awareness, only a small proportion (18.2%) thought they were personally at risk of developing gambling-related problems, and just 1% self-reported being addicted to gambling.

Screening using the DSM-5 criteria identified 14 respondents (4.7%) as meeting the threshold for gambling disorder. Additional findings are presented in Table 4.

Table 4: The level of awareness of adolescents about the risks associated with Gambling (N=301).

| Variables | Category | Frequency (%) |
|--|------------------------------|---------------|
| Have you heard that betting by minors (under 18) is against the law in Nigeria | No | 87 (28.9) |
| | Yes | 214 (71.1) |
| How big is the problem of sports betting among young people in Lagos? | Very serious | 174 (57.8) |
| | Somewhat serious | 24 (8.0) |
| | Not serious | 15 (5.0) |
| | I don't know | 88 (29.2) |
| Consequences of gambling | I don't know | |
| | To win money | 84 (27.9) |
| | To lose money or items | 101 (33.6) |
| | Problems with family | 138 (45.8) |
| | Miss school | 58 (19.3) |
| | Lose friends | 40 (13.3) |
| | Hurt myself | 16 (5.3) |
| | Get new friends | 46 (15.3) |
| | Multiple options were chosen | 16 (5.3) |
| | | |
| Do you think you can become addicted to gambling? | Not at all | 213 (70.8) |
| | May be | 29 (9.6) |
| | Very possible | 23 (7.6) |
| | Already addicted | 3 (1.0) |
| | I don't know | 33 (11.0) |
| Gambling disorder using DSM-5 (at least the presence of 4 out of 9 diagnostic criteria symptoms in the last 12 months) | No gambling disorder | 287 (95.3) |
| | Gambling disorder | 14 (4.7) |

Sources of information about gambling

The study shows that adolescents learn about gambling primarily through social media (37.5%), followed by friends (32.2%) and the internet (25.9%). Additional details are presented in Table 5.

Table 5: Sources of information about gambling.

| Variables | Category | Frequency (%) |
|---|--------------|---------------|
| Sources of information about gambling | Social media | 113 (37.5) |
| | Internet | 78 (25.9) |
| | SMS | 16 (5.3) |
| | Friends | 97 (32.2) |
| | Siblings | 9 (3.0) |
| | Parents | 9 (3.0) |
| | Tv | 71 (23.6) |
| | Billboards | 43 (14.3) |
| | | |
| How often do you talk to your friends about betting | Never | 176 (58.5) |
| | I avoid it | 64 (21.3) |
| | Sometimes | 48 (15.9) |
| | Very often | 13 (4.3) |

Discussion

Our objectives were fourfold. We aimed to determine the prevalence of gambling among school adolescents. The second objective was to assess their level of exposure to gambling, while

the third objective was to identify the motivators of gambling in them, and the fourth objective was to assess their level of awareness of the risks involved in adolescent gambling.

Prevalence of adolescent gambling

The overall prevalence of adolescent gambling in this study was 29.2%. This estimate aligns with findings from numerous international studies, which similarly report that approximately one-third or more of adolescents and young adults have engaged in gambling at least once in their lifetime [11,16-24].

One possible explanation for this relatively high prevalence is the broad definition of gambling adopted in many studies, including activities such as card games with family members, lottery participation, and informal wagering with peers. Additionally, adolescents in developing countries may be more inclined to view gambling as a potential avenue for financial gain or as a perceived strategy for escaping poverty [25], which may further contribute to the elevated rates observed.

Exposure to gambling by adolescents

The study demonstrated a substantial level of exposure to gambling among school adolescents. Among participants who reported knowing someone who gambles or having watched someone engage in gambling, friends were the most common source of this exposure, accounting for 69.5% of those who knew a gambler and 54.6% of those who had observed gambling behaviour.

This pattern is consistent with previous research showing that adolescents whose friends gamble are significantly more likely to be involved in gambling themselves. Studies have found that such adolescents are more likely to report current gambling [25], gambling within the past year [20], or even meeting criteria for a gambling problem. Peer behaviour and peer attitudes, especially when gambling is viewed positively, have been identified as powerful influences on adolescent gambling initiation and continuation [26].

Motivators of adolescent gambling

There are multiple reasons why adolescents are motivated to gamble, and these motivations often reflect broader social and economic contexts. In this study, one of the most common motivations was the perception of gambling as a potential source of income, particularly as a way to ease financial difficulties. This finding aligns with earlier research showing that young people in resource-limited settings may view gambling as an avenue to improve their economic situation [27,28].

Other important motivations identified include using gambling to pass the time, relieve boredom, and respond to peer influence. Beyond financial motives, gambling is frequently described by adolescents as a social activity, an opportunity to engage with peers rather than simply a means to win money [29].

Research from adolescent gambling treatment programs further suggests that many young people use gambling as a coping mechanism. Gupta et al. [30] reported that adolescents with gambling problems often describe money as secondary; instead, gambling functions as a way to escape stress, regulate emotions, or dissociate from difficult life events. These findings highlight the complex interplay between economic, social, and emotional factors in shaping adolescent gambling behaviour.

Adolescents' perception and reality of the level of risks involved in adolescent gambling

More than half of the adolescents identified gambling as a serious national issue, acknowledging its potential to cause financial losses and family conflict. Nevertheless, only a small proportion believed they were personally at risk, and 4.7% met DSM-5 criteria for gambling disorder, a prevalence consistent with international estimates ranging from 1.1% [11] to 9.8% [31], with most studies reporting rates between 3.6% and 5.6% [32-35]. Differences in prevalence across studies may reflect age variations, as older adolescents (16-19 years) are generally more likely to experience gambling-related problems than younger adolescents (13-15 years) [36].

Strengths and limitations

The study has several limitations. First, the data are self-reported and therefore liable to well-known biases, regarding the authenticity of the answers provided, the social desirability, and the reliability of the reported memories. Second, the sample is not nationally representative, as out-of-school adolescents, who may have different gambling behaviours were not included, limiting the generalisability of the findings. Third, the cross-sectional design prevents any conclusions about causality, and longitudinal research is needed to better understand developmental patterns and predictive relationships. Despite these limitations, the study offers valuable insights into gambling behaviour among school-attending adolescents in Lagos, Nigeria, and highlights important areas for future investigation.

Conclusion

Adolescents in Lagos demonstrate substantial exposure to and engagement in gambling, often beginning at an early age and driven by peer influence and monetary motives. Despite high awareness of associated risks, personal risk perception remains low. Targeted school-based prevention, parental education, and strengthened regulation of adolescent gambling exposure are urgently needed.

References

1. Blinn-Pike L. Adolescent Gambling: An Update on Research Since 2010. *Journal of Adolescent Health*. 2017; 60: 481-482.
2. Calado F, Alexandre J, Griffiths MD. Prevalence of Adolescent Problem Gambling: A Systematic Review of Recent Research. *J Gambl Stud*. 2017; 33: 397-424.
3. Andrie EK, Tzavara CK, Tzavela E, Richardson C, Greydanus D, et al. Gambling involvement and problem gambling

- correlates among European adolescents: results from the European Network for Addictive Behavior study. *Soc Psychiatry Psychiatr Epidemiol*. 2019; 54: 1429-1441.
4. Chambers RA, Taylor JR, Potenza MN. Developmental neurocircuitry of motivation in adolescence: a critical period of addiction vulnerability. *Am J Psychiatry*. 2003; 160: 1041-1052.
 5. Molinaro S, Canale N, Vieno A, Lenzi M, Siciliano V, et al. Country- and individual-level determinants of probable problematic gambling in adolescence: a multi-level cross-national comparison. *Addiction*. 2014; 109: 2089-2097.
 6. Räsänen TA, Lintonen TP, Raisamo SU, Konu AI. How much gambling is too much? Identifying potential problem gambling among adolescents. *Int J Adolesc Med Health*. 2016; 29.
 7. Derevensky JL, Gupta R, Winters K. Prevalence rates of youth gambling problems: are the current rates inflated? *J Gambl Stud*. 2003; 19: 405-425.
 8. Secades-Villa R, Martínez-Loredo V, Grande-Gosende A, Fernández-Hermida JR. The Relationship between Impulsivity and Problem Gambling in Adolescence. *Front Psychol*. 2016; 7: 1931.
 9. Bankole ET. Patterns and Prevalence of Gambling Behaviour Among Youths in South-west Nigeria: A case study of youths in Oyo and Ekiti State. *British Journal of Psychology Research*. 2019; 7: 22-46.
 10. Adebisi T, Alabi O, Arisukwu O, Asamu F. Gambling in Transition: Assessing Youth Narratives of Gambling in Nigeria. *J Gambl Stud*. 2021; 37: 59-82.
 11. Kang K, Ok JS, Kim H, Lee KS. The gambling factors related with the level of adolescent problem gambling. *Int J Environ Res Public Health*. 2019; 16: 2110.
 12. Min KR, Kyo JK, Sun JK. Psychosocial characteristics of internet gamblers in South Korea. *Korean J Health Psychol*. 200; 12: 21-40.
 13. United Nations Children's Fund (UNICEF). A study of Adolescents Knowledge, Attitude and Practice to Gambling. 2022.
 14. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5) Washington, DC. APA. 2013.
 15. Granero R, Jiménez-Murcia S, Fernández-Aranda F, Del Pino-Gutiérrez A, Mena-Moreno T, et al. Presence of problematic and disordered gambling in older age and validation of the South Oaks Gambling Scale. *PLoS One*. 2020; 15.
 16. Armitage R. Gambling among adolescents: an emerging public health problem. *Lancet Public Health*. 2021; 6.
 17. Sancartier MD, Shen J, Edgerton JD. Gambling among emerging adults: How gender and risk level influence associated problem behaviours. *J Gambl Issues*. 2019; 41: 101-123.
 18. Abdi TA, Ruiter RA, Adal TA. Personal, social and environmental risk factors of problematic gambling among high school adolescents in Addis Ababa, Ethiopia. *J Gambl Stud*. 2015; 31: 59-72.
 19. Aguocha CM, Duru CB, Nwefoh EC, Amadi KU, Olose EO, et al. Determinants of gambling among male students in secondary schools in Imo State, Nigeria. *J Subst Use*. 2019; 24: 199-205.
 20. Bozzato P, Longobardi C, Fabris MA. Problematic gambling behaviour in adolescents: Prevalence and its relation to social, self-regulatory, and academic self-efficacy. *Int J Adolesc Youth*. 2020; 25: 907-919.
 21. Donati MA, Primi C, Mazzaresse M, Sanson F, Leone L. Immigrant status and problem-gambling severity in adolescents: Evidence for moderation by sensation seeking. *Addict Behav*. 2020; 107: 106395.
 22. Elton-Marshall T, Leatherdale ST, Turner NE. An examination of internet and land-based gambling among adolescents in three Canadian provinces: results from the youth gambling survey (YGS). *BMC Public Health*. 2016; 16: 277.
 23. Foster DW, Hoff RA, Pilver CE, Yau YH, Steinberg MA, et al. Correlates of gambling on high-school grounds. *Addict Behav*. 2015; 51: 57-64.
 24. Giralt S, Müller KW, Beutel ME, Dreier M, Duvén E, et al. Prevalence, risk factors, and psychosocial adjustment of problematic gambling in adolescents: Results from two representative German samples. *J Behav Addict*. 2018; 7: 339-347.
 25. Aguocha CM, Duru CB, Nwefoh EC, Ndukuba AC, Amadi KU, et al. Attitudes towards and perception of gambling among secondary school students in a developing country. *Int Gambl Stud*. 2019; 19: 532-544.
 26. Canale N, Griffiths MD, Vieno A, Siciliano V, Molinaro S. Impact of Internet gambling on problem gambling among adolescents in Italy: Findings from a large-scale nationally representative survey. *Comput Hum Behav*. 2016; 57: 99-106.
 27. Temitope BE, Oyekola A, Mary BA. Personality traits and financial strain as determinants of gambling behaviour among youth in Nigeria: A case study of youths in Oyo state and Ekiti state. *American International Journal of Social Science*. 2019; 4: 1-8.
 28. Bitanirwe BKY, Ssewanyana D. Gambling Patterns and Problem Gambling Among Youth in Sub-Saharan Africa: A Systematic Review. *J Gambl Stud*. 2021; 37: 723-745.
 29. Lynch WL, Maciejewski PK, Potenza MN. Psychiatric correlates of gambling in adolescents and young adults grouped by age at gambling onset. *Arch Gen Psychiatry*. 2004; 61: 1116-1122.
 30. Gupta R, Derevensky JL. Adolescent gambling behavior: A prevalence study and examination of the correlates associated with problem gambling. *J Gambl Stud*. 1998; 14: 319-345.
 31. Cosenza M, Ciccarelli M, Nigro G. The steamy mirror of adolescent gamblers: Mentalization, impulsivity, and time horizon. *Addict Behav*. 2019; 89: 156-162.
 32. Jauregui P, Estevez A, Macía L, López-González H. Gambling motives: Association with addictive disorders and negative and positive mood in youth. *Addict Behav*. 2020; 110: 106482.

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33. Martínez-Loredo V, Grande-Gosende A, Fernández-Artamendi S, Secades-Villa R, Fernández-Hermida JR. Substance Use and Gambling Patterns Among Adolescents: Differences According to Gender and Impulsivity. *J Gambl Stud.* 2019; 35: 63-78.
 34. Paleologou A, Lazaratou H, Anagnostopoulos D, Economou M, Malliori M, et al. Problem gambling and concurrent emotional/behavioral problems among Greek adolescents. *Turk Pediatri Ars.* 2019; 54: 166-172.