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PEER RELATIONS AND PSYCHOLOGICAL ABUSE AS PREDICTORS OF CYBER-DELINQUENT BEHAVIOUR: THE MEDIATING ROLE OF SPORTS BETTING ADDICTION AMONG UNDERGRADUATES IN SOUTH-EASTERN NIGERIA.

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ABSTRACT

Cyber delinquency is one of the growing concern particularly among the teeming population of young adults, most of whom are undergraduates. Their relation with peers and psychological experience has been linked to this delinquent behaviour, where sports betting seem to be an enabling factor. This study therefore investigate peer relations and psychological abuse as predictors of cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria: The Mediating Role of Sports Betting Addiction. Cross-sectional survey design was used and a total of 768 university students were selected using online survey (google forms), comprising of 440 (57.3%) male and 328 (42.7%) female aged between 17 - 30 years. Peer relations scale developed by Kelvin et al. (1999), psychological abuse scale developed by Momta et al. (2020), sports betting addictive behaviour scale developed by Igo and Ehigie (2021) and cyber-delinquent scale developed by Aricak et al. (2012) were used as instruments for data collection. Two hypotheses were formulated and tested and the result showed that peer relations, psychological abuse and sports betting significantly, independently and jointly predicted cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. The result further showed that sports betting significantly mediate the predictive power of peer relations and psychological abuse on cyber-delinquent behaviour among undergraduates in South Eastern Nigeria. Findings were discussed in relation to other studies, conclusions were drawn and implications enumerated.

Key Words: Peer Relations, Psychological Abuse, Cyber-Delinquent Behaviour, Sports Betting Addiction, Undergraduates

INTRODUCTION

Cyber delinquency refers to wide range of behaviours exhibited in digital space, such as online fraud, cyberbullying, identity theft, hacking, dissemination of harmful content and illegal downloading (Ayub & Ashraf, 2025; Bahl & Punia, 2025). Generally, cyber delinquency is understood as an extension of delinquent behaviour that is traditionally known, into virtual domains, facilitated by in increment in access to digital technologies (Hinduja & Patchin, 2018). Unlike the normal and conventional forms of delinquent behaviours cyber delinquency is usually anonymous, rapidly executed and easily concealed, which make it appealing particularly among young people who are generally adept in the use of technology (Bahl & Punia, 2025). This behaviour can particularly affect young people especially those in schools as it is capable of disrupting academic pursuit and damaging their reputation, thereby exposing them to psychological and legal consequences (Akrami et al. 2024).

Among young people, cyber delinquency is a global concern as its prevalence is alarming (Bahl & Punia, 2025; Yoo, 2022). Alenezi et al., (2024), Brewer et al., (2023), Patchin and Hinduja (2020) among other studies reported that more than 30% of young people worldwide. In Nigeria, cyber delinquency prominently manifest though online fraud, which most people refer to as yahoo-yahoo, and this has drawn attention for both national international (Ajayi et al., 2025; Nwobodo, 2024; Ojolo et al., 2023) and has become a national security threat, giving Nigeria a negative image in the global community (Onyendi, 2025). A report attributed to Economic and Financial

Crimes Commission as reported by Asher (2025), Levi (2025) and Schidlow, (2025) indicates that larger percent of people arrested with fraud-related cases in Nigeria are young people between the ages of 16 to 30 years, some of whom are undergraduates. This statistics particularly in Nigeria underscores the urgent need to investigate predictors of cyber delinquency particularly in the South Eastern Nigeria, where peer dynamics, social expectation and economic hardship could intensify susceptibility among young people, who are all out to meet up with these expectations.

Peer relations, defined as the quality of social interactions, acceptance, and influence experienced within one's peer group, play a central role in shaping adolescent and young adult behaviour (Rubin, Bukowski, & Parker, 2006; Scholte & Van Aken, 2020). Positive peer relations provide support, belongingness, and opportunities for prosocial development, while negative peer influences can encourage risk-taking and deviant behaviours (Tomova, Andrews & Blakemore, 2021). Among undergraduates, peer groups often constitute the primary reference point for identity formation and social validation, particularly in contexts where young people seek autonomy from parental authority. When delinquent activities such as online fraud or cyber-harassment are normalized within peer networks, undergraduates may adopt these behaviours as acceptable or even prestigious (Egodi, Uka & Chidubem, 2024). Therefore, peer relations reinforces patterns of behaviour that is deviant, which powerfully predicts cyber-delinquency in the digital space.

Psychological abuse on the other hand, has been identified to have been overlooked compared to physical abuse which is more obvious. Psychological abuse is defined as a behaviour that causes harm emotionally, exhibited through humiliation, verbal aggression, manipulation, rejection, controlling actions among others (Engel, 2023; Glaser, 2002). These abuse creates feelings of helplessness, undermining self-esteem and can create a psychological scars that are long-lasting. According to Nagoshi et al. (2024), Shields and Cicchetti (2001), victims of psychological abuse are most likely to exhibit coping strategies that are maladaptive, such as aggression and delinquency. In relation to cyber-delinquency, Bahl and Punia (2025) opined that students who are exposed to abuse psychologically may move to internet as an alternative where they can suppress their frustration, anger or to get the emotional needs that are unmet. This therefore means that spaces online provides power and anonymity which enables individuals that are abused to engage in deviant behaviours, which compensate their vulnerabilities offline. In Nigeria, particularly in the South-East, there are institutional and familiar structures that are normalize inadvertently, practices of emotional abuse and according to Ekeigwe, Ikpeama and Ene, (2024), this could be a pathway is concerning particularly in the area of cyber-delinquency.

Sports betting, which has gained enormous popularity among youths in Nigeria, is a rapid growing type of gambling, that is facilitated by platforms in the digital space. According to Igo and Ehigie (2021), sports betting is defined as the act of staking money on the outcome of sporting events. This has become a daily activity for many undergraduates, often marketed as a path to quick wealth (Okagbue et al., 2019). However, the addictive nature of betting, characterized by compulsive engagement and financial losses, often leads to heightened impulsivity and desperation. As a mediating variable, sports betting addiction can strengthen the link between peer pressure, psychological abuse, and cyber-delinquency (Goldsmith & Wall, 2022). Students facing abuse or peer-driven gambling habits may, in their attempt to sustain losses or maintain status, resort to delinquent online behaviours such as fraud or hacking (Nelsen, 2018). Thus, sports betting not only functions as a risk factor on its own but also as a bridge that connects psychosocial vulnerabilities to cyber-delinquent outcomes.

The relationship between peer relations, psychological abuse, sports betting, and cyber-delinquency can be explained through Social Learning Theory (Bandura, 1977), which posits that individuals acquire behaviours by observing and imitating others, especially within social groups. Undergraduates exposed to peers who glorify cyber-fraud or gambling are more likely to adopt

these behaviours when they are rewarded socially or financially. In addition, General Strain Theory (Agnew, 1992) highlights how negative experiences such as psychological abuse generate emotional strain that increases the likelihood of deviance as a coping mechanism. Moreover, Problem Behavior Theory (Jessor, 1991) explains the clustering of risky behaviours—such as gambling and cyber-delinquency—as interlinked manifestations of underlying psychosocial vulnerabilities.

The relevance of this study in the South-Eastern Nigerian cannot be overemphasized, due to the fact that socio-economic pressure, expectations in culture as well as material wealth pursuit, fosters an environment, where there is glamorization of illegitimate means of financial success, not minding where it comes from. Wariboko and Nwanyanwu, (2024) opined that, in many communities in the South-Eastern Nigeria, there is pressure among young men socially to rapidly attain wealth, which leads to normalization of cyber-fraud as well as gambling as options that are viable. When the underpinnings in psychosocial aspects of cyber-delinquency, psychological abuse, peer dynamics as well as betting addiction are addressed, they offer, not only insights in theory but practical implications for educators, mental health practitioners and policy makers. This study, by situating its problem in this socio-cultural context, provide a step that is critical towards the design of programs for intervention addressing the root causes of cyber-delinquent behaviour particularly among undergraduate, which contributes to the fight against digital crime in Nigeria on a broader level.

Problem Statement and Hypotheses

Among undergraduates, cyber-delinquency is has gradually become a social phenomenon, threatening not only the societal moral fabric, but also young people's future, especially in a developing country like Nigeria (Bossler, 2019; Ezennaka et al. 2021; Kumar & Mathew, 2024). There is rapid proliferation of affordable internet, coupled with smartphones and penetration of social media particularly among undergraduates who now have exposure to cyberspace that is unprecedented. It is a known fact that digital platforms provide professional, social and academic opportunities but beyond that, they also provide avenues for behaviours that are deviant, such as hacking, cyberbullying, identity theft, financial scams, online frauds, pornography and phishing among others. The borderless and anonymity nature of the internet has reduced accountability, emboldening young people to, without fear of repercussion, engage in delinquent acts. Hinduja and Patchin (2018) and Yar, (2019) opined that cyber-delinquent behaviour has gone beyond peripheral issue and has become mainstream, where young adults becoming most active perpetrators. Cyber-delinquency in Nigeria has reached a level that is alarming, specifically with the rise of internet fraud called the yahoo-yahoo, which relates to financial crimes. Economic and Financial Crimes Commission (EFCC)'s report indicates that most of the apprehended people relating to crimes of cybercrime offenses are within the ages of 18 – 30 years, corresponding to the population of undergraduates (Balogun, Abdulrahman & Aka, 2024; Lazarus, 2020). This trend is problematic not only because it undermines educational objectives and institutional integrity but also because it creates a cycle of deviance that positions cyber-delinquency as a gateway to more entrenched criminal lifestyles.

The problem of cyber-delinquency is particularly acute in South-Eastern Nigeria due to a convergence of socio-cultural and economic factors (Ezennaka et al. 2021; Kumar & Mathew, 2024). This region is historically known for its entrepreneurial drive, resilience, and competitive spirit. While these attributes are positive, they have also given rise to intense social pressure on young men, in particular, to achieve rapid financial success and demonstrate visible wealth, often through ostentatious lifestyles. In communities where success is equated with material accumulation, the temptation to embrace illegitimate means, including cybercrime, becomes strong (Owen, 2025). Peer influence in such an environment cannot be underestimated: undergraduates are embedded in networks where peers often validate and celebrate cyber-fraudsters and gamblers who appear to succeed materially (Ogunleye, Ojedokun & Aderinto,

2019). Poor peer relations or exposure to delinquent peer groups thus increases the likelihood of students engaging in cyber-delinquent behaviour. Similarly, psychological abuse remains an underexplored but critical factor. Many undergraduates grow up in environments characterised by harsh parenting, verbal aggression, humiliation, and emotional neglect, often disguised as disciplinary practices. Such experiences can diminish self-esteem, create resentment, and foster antisocial coping mechanisms that find expression in cyberspace where anonymity provides both a shield and a tool for retaliation.

Compounding these vulnerabilities is the rise of sports betting addiction. Betting platforms have proliferated in Nigeria, aggressively marketed to young people through football culture, celebrity endorsements, and the promise of overnight riches (Okagbue et al., 2019). Students addicted to betting may resort to cyber-delinquent practices to finance their gambling, recover losses, or maintain social status within their peer networks. Thus, in South-Eastern Nigeria, the combined pressures of peer dynamics, psychological abuse, and betting addiction converge to exacerbate the risk of cyber-delinquency. This makes the current study highly relevant, as it addresses not just the dependent variable but also the mediating and predictive factors that uniquely shape this problem in a region where the pursuit of wealth—whether legitimate or illegitimate—has become a cultural marker of success.

The relevance of this study at this time cannot be overstated. Nigeria, like many developing nations, is grappling with a youth population that is both its greatest asset and its most pressing challenge. The demographic reality of a “youth bulge” means that millions of young people, particularly university undergraduates, are entering adulthood in a context of limited job opportunities, economic uncertainty, and fragile social institutions. In such circumstances, deviant behaviours like cyber-delinquency become attractive not only as coping mechanisms but also as perceived pathways to survival and prestige. South-Eastern Nigeria stands out in this regard, as anecdotal and empirical evidence suggests that the region has become a hotspot for cyber-fraud and digital deviance. The glorification of yahoo boys in popular culture, coupled with the normalization of betting shops near university campuses, has created an environment where delinquent behaviours are tacitly tolerated, if not openly celebrated. Despite this alarming trend, there remains a dearth of empirical studies that simultaneously examine peer relations, psychological abuse, and sports betting addiction as predictors of cyber-delinquent behaviour. Most existing research in Nigeria has focused broadly on cybercrime, overlooking the nuanced psychosocial pathways that lead undergraduates into digital deviance (Akeusola, 2023; Irogbo, 2024; Okeke & Onyekachukwu, 2024).

This gap in knowledge makes it difficult for policymakers, educators, and mental health practitioners to design targeted interventions. By investigating these specific predictors and the mediating role of sports betting addiction, this study not only contributes to scholarly discourse but also offers practical insights for curbing a phenomenon that threatens to erode academic integrity, compromise social stability, and damage Nigeria’s international reputation. Addressing the problem now is critical, as failure to act risks entrenching a culture of cyber-delinquency that could have devastating long-term consequences for both individuals and society.

Judging from the above, we can therefore hypothesized that;

- i. Peer relations, psychological abuse and sports betting will significantly, independently and jointly predict cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria.
- ii. Sports betting addiction will significantly mediate the predicting value of peer relations and psychological abuse on cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria.

METHOD

Design

For the purpose of this study, a cross-sectional survey design was used as it is considered the most suitable design for investigating peer relations and psychological abuse as predictors of cyber-delinquent behaviour; the mediating role of sport betting addiction among undergraduates in South-Eastern Nigeria. Cross-sectional survey design, according to Maier et al., (2023) is the type of design that allows researchers to collect data from a particular population at a particular point in time. This design, in addition also provides insight into the prevalence and relationship of the variables in particular research, which in this case focuses on peer relations, psychological abuse, sports betting addiction and cyber-delinquent behaviour among students. Cummings (2018) defined cross-sectional survey design as a type of design used in empirical studies at one point in time, describing a population of interest (undergraduates in South-Eastern Nigeria) where researcher records information but does not manipulate the variables under consideration. Moreover, cross-sectional survey design usually uses questionnaires or structured interviews for data collection which involves human respondents primarily for units of analysis.

Population and Sampling

The population of this study comprised of undergraduate students in both federal, state and private universities in South Eastern Nigeria, which cut across the Abia, Anambra, Ebonyi, Enugu and Imo states. Popular among universities in these states are University of Nigeria, Nsukka, Nnamdi Azikiwe University, Awka, Imo State University, Ebonyi State University, Madonna University, Abia State University, among several other universities in the South Eastern Nigeria. Participants were selected across different universities and to balance the selection process, both federal, state and private universities were selected for this study. The participants were selected from 1 federal university, 1 state university and 1 private university in each of the 5 states in South-Eastern Nigeria which constitutes the population for this study.

The sample size was determined using roasoft sample size calculator for unknown population (<https://raosoftcalculator.com/>) and participants were recruited using online google forms, which were distributed across the universities through recruited and trained research assistants across the selected universities. Convenient sampling was utilized and the distribution channel was through whatsapp groups, emails and other social media platforms. Appropriate verbal permission was obtained from all the selected universities and the response rate was high across all the selected universities.

Participants

For the participants, a total of 768 undergraduates were selected from federal, state and private universities in South-Eastern Nigeria. A total of 825 undergraduates were initially selected but the process of data cleaning expunged 57 responses due to incomplete responses which made them invalid. Among the returned 768 responses, 440 (57.3%) were male and 328 (42.7%) female. On their age, the researcher sampled 14 (1.8%) who were between 17 – 20 years, 504 (65.6%) who were between 21 – 25 years, 244 (31.8%) who were between 26 – 30 years while 6 (0.8%) did not indicate their age. On their religious affiliations, 754 (98.2%) of the sampled respondents were Christians while 14 (1.8%) were from other religious affiliations. Furthermore, 52 (6.8%) of the sampled respondents were from Nnamdi Azikiwe University, 96 (10.8%) were from University of Nigeria Nsukka, 39 (5.1%) were from Chukwuemeka Odumegwu Ojukwu University, 44 (5.7%) were from Madonna University Okija, 53 (6.9%) were from Michael Okpara University of Agriculture, Umudike, 54 (7.0%) were from Abia State University, Uturu, 53 (6.9%) were from Gregory University Uturu, 53 (6.9%) were from Enugu State University of Science and Technology, Enugu, 47 (6.1%) were from Godfrey Okoye University Uguwuomu-Nike, 44 (5.7%) were from Alex Ekwueme Federal University Ndufu-Alike Ikwo, 53 (6.9%) were from Ebonyi State

University, 45 (5.9%), 45 (5.9%) were from Evangel University, Akaeze, 45 (5.9%) were from Federal University of Technology, Oweri, 45 (5.9%) were from Imo State University, Oweri, and 45 (5.9%) were from Hezekiah University, Umudi. Moreover, 22 (2.9%) of the respondents had parents with low socio-economic status, 598 (77.9%) had average while 148 (19.3%) had parents with high socio-economic status. On parenting status, 745 (97.0%) had both parents as parenting status, 14 (1.8%) had foster parents while 9 (1.2%) did not indicate their parenting status.

Instrument

Four standardized scales were used for data collection for this study comprising of peer relations scale, psychological abuse scale, sports betting addictive behaviour scale and cyber-delinquent behaviour scale

Peer Relations Scale: This scale was developed and validated by Klein, Beltran and Sowers-Hoag, (1990). It is an initially developed with 25 items but later revalidated and only 11 items were returned from the validation. Sample items include 'I get along very well with my peers', 'My peers act like they don't care about me' among others, with the reliability of the instrument reported at 90 Cronbach's alpha and reported validity was reported at .60 or greater. The scale has 7-response format ranging from 1 – none of the times, 2 for very rarely, 3 for a little of the time, 4 for some of the times, 5 for a good part of the time, 6 for most of the time and 7 for all of the time. It was reported that the study was cited as being utilized in other countries with different reliability coefficient, but in Nigeria and non-Western population, there was no evidence of reported validation and as such, this study conducted a reliability analysis and it was found that the scale has a reliability coefficient of .78 Cronbach's alpha among the study population.

Psychological Abuse Scale: The Psychological Abuse Scale used for this study was developed by Momta et al. (2020). It is a 30-item scale with sample items such as 'Those around me get in a fight with me', 'Those around me have rebuked me while talking to me or communicating with me since my childhood', 'Those around me did not or do not take my words seriously' among others. The scale is scored using a 5-point response format ranging from 0 = Never; 1 – Rarely; 2 = Sometimes; 3 – Most of the times; 4 = Always. The scale showed a validity coefficient using Pearson's Product Moment Correlation of 0.87 which was considered high, with a reliability coefficient which was evaluated by Cronbach's alpha obtained at 0.93. In Nigeria, the scale was validated by Adikwu et al, (2021) in a study to investigate emotional abuse and mental health of women in abusive marriage in communities in Gwagwalada, Federal Capital Territory, Nigeria, and the study found reliability coefficient of .734 and high validity coefficient, particularly among 566 sample in their study among psychological abuse among married couples in Gwagwalada, Federal Capital Territory, Nigeria.

Sports Betting Addiction: Sports betting addiction scale used for this study was Sports Betting Addiction Behaviour Scale developed and validated by Igo and Ehigie (2021). The scale is a 46-item scale developed among sports bettors in Benue State with sample items such as 'I bet on sports everyday', 'I feel anxious each time my stake is on', 'talk people into staking sports bets' among others, with response format of highly applicable to me, moderately applicable to me, mildly applicable to me and not applicable to me, scored at 4, 3, 2, and 1 respectively. Face validity was used among experts and postgraduate students to validate the scale, with convergent validity score of $r = .965$ was obtained when it was correlated with Gambling Addictive Behaviour for Adolescents Scale. The reliability coefficients of 0.98 Cronbach's alpha and full-scale reliability of 0.94 Cronbach's alpha was obtained. The scale has four factors but composite scores were used without the dimensions for the study in line with the scoring format as suggested by Igo and Ehigie (2021).

Cyber-Delinquent Behaviour Scale: The cyber-delinquent scale used for this study was developed by Arıcak, Kinay and Tanrikulu (2012) to measure behaviours considered to be cyber

delinquent. Sample items of this scale include 'have created an email account (e.g., Gmail, Yahoo) using someone else's name', 'i have opened social media accounts (e.g., Facebook, Twitter) using someone else's identity without permission', 'I have used other people's personal information on the internet without their consent' among others with response format of Never, Sometimes, Often and Always, scored using 1, 2, 3 and 4 respectively. Exploratory Factor Analysis (EFA) showed a one factor structure with a KMO = 0.939 (excellent sampling adequacy). Bartlett's Test was significant, with the single factor explaining 50.58% of the total variance. Moreover, the scale showed an excellent internal consistency of 0.95 Cronbach's alpha with a test-retest reliability coefficient of 0.70. Pilot testing shows that the sale has a Guttman split-half reliability coefficient of 0.724 and 0.773 for both equal and unequal length. The testing further showed internal consistency of 0.834 Cronbach's alpha, while the reliability analysis for this study showed reliability coefficient of .79 Cronbach's alpha.

Data Analysis

The data gathered for this study, using online google forms was analyzed using both descriptive and inferential statistics. Descriptive statistics such as mean, standard deviation and simple frequencies were used to analyze the demographic characteristics of the respondents, while inferential statistics were used for tested the formulated hypotheses. Specifically, multiple regression analysis was used in testing hypothesis one while two was tested using process marco. Statistical Package for Social Science (SPSS) was used for testing and presenting the result.

RESULTS

Test of Multicolliniarity

Before conducting the hypothesis testing, multicollinearity test was conducted to determine the relationship among variables, and the result is presented in table 1.

Table 1: Zero-order correlation showing the relationship among variables

Variable	1	2	3	4	Mean	SD
Peer Relations	-				66.23	13.19
Psychological Abuse	.552**	-			68.65	20.07
Sports Betting Addiction	.369**	.209**	-		69.99	15.52
Cyber Delinquency	.674**	.432**	.317**	-	14.43	3.51

** <.001

Multicollinearity is the condition particularly in regression analysis where the predictor variables have high level of interrelationship, and this makes it difficult to determine if they have unique effect on the outcome variable. It occurs when the correlation coefficient in the relationship analysis is as high as .90 and in this case, muticollinearity did not occur because none of the predictor variable has a high relationship since all of them are below .90 benchmark.

Hypothesis Testing

Two hypotheses were formulated for this study, and multiple regression analysis was used in testing the hypotheses. Before the regression analysis was conducted, major parametrics assumptions were taken into consideration for the result's validity. The assumptions include linearity, (which is the relationship between independent and dependent variables and the mediating variable, which is linear), independence of errors (ensuring the independent of observations), homoscedasticity (residual variance constant), residual normality and absence of multicollinearity among the predictors. Inspections visually and statistical tests like Variance Inflation Factor (VIF) as well as Shapiro-Wilk test showed that the data meet reasonably these assumption, and supported the use of regression in testing these hypotheses.

Hypothesis 1:

This hypothesis stated that peer relations, psychological abuse and sports betting addiction will significantly, independently and jointly predict cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. This was tested using multiple regression analysis and the result is presented in table 2.

Table 2:

Multiple regression analysis showing peer relations and psychological abuse as predictors of cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria.

DV	Predictor(s)	β	t	p	R	R ²	F	df	p
Cyber Delinquent Behaviour	Constant				.862	.464	220.861	3, 764	<.001
	Peer Relations	.597	17.89	<.001					
	Psychological Abuse	.086	2.70	<.01					
	Sports Betting Addiction	.078	2.75	<.01					

The hypothesis which stated that peer relations, psychological abuse and sports betting addiction will significantly, independently and jointly predict cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria, was tested using multiple regression analysis. Preliminary analysis was conducted ensuring that there was no violation of assumptions of normality, linearity, multicollinearity and homoscedasticity. The result showed that the regression model was statically significant [F (3, 764) = 220.861; p<.001], and all the predictors including the mediating variable explained approximately 46.4% of the total variance observed in cyber-delinquent behaviour among students [R² = .464], and this indicate a medium effect size in accordance with Cohen, (1988, 2013)'s guideline.

On independent basis the result showed that all the predictors including peer relations [B = .159, SE = .009, β = .597, t = 17.886; p<.001] and psychological [B = .015, SE = .006, β = .086, t = 2.704; p<.05] as well as the mediating variable which is sports betting addiction [B = .018, SE = .006, β = .078, t = 2.749; p<.05] significantly and independently predicted cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. Based on this finding, hypothesis one which stated that 'peer relations, psychological abuse and sports betting addiction will significantly, independently and jointly predict cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria' was therefore accepted.

Hypothesis II

This hypothesis stated that sports betting addiction will significantly mediate the predicting value of peer relations and psychological abuse on cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. This hypothesis was tested using process macro and the result is presented in table 3 and 4.

Table 3:

Summary table of process macro showing the mediating effect of sports betting on the predicting power of peer relations on cyber-delinquent behaviour among students

Path	Effect (B)	SE	t	p	95% CI [LL, UL]
Direct Effect (X → Y)	0.172	0.0076	22.54	<.001	[0.157, 0.187]
Indirect Effect (X → M → Y)	0.008	0.0030	–	–	[0.003, 0.015]
Total Effect (Direct + Indirect)	0.180	–	–	–	–

Note: X = Peer Relations, M = Sports Betting Addiction, Y = Cyber-Delinquent Behaviour.

Before the mediating variable was conducted, the mediating variable was tested against the dependent variable as presented in table 2 and the result showed that, sports betting significantly predicted cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria [$B = .018$, $SE = .006$, $\beta = .078$, $t = 2.749$; $p < .05$]. Result in table 3 therefore shows a mediating result, which was conducted to examine whether sports betting addiction mediates the relationship between peer relations and cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. Results showed that peer relations significantly predicted sports betting addiction, [$B = 0.43$, $SE = 0.04$, $t(766) = 10.99$, $p < .001$]. In turn, sports betting addiction significantly predicted cyber-delinquent behaviour, [$B = 0.02$, $SE = 0.01$, $t(765) = 2.76$, $p = .006$]. The direct effect of peer relations on cyber-delinquent behaviour remained significant, [$B = 0.17$, $SE = 0.01$, $t(765) = 22.54$, $p < .001$], indicating that peer relations directly increased the likelihood of cyber-delinquent behaviour. Importantly, the indirect effect through sports betting addiction was also significant, [$B = 0.008$, $SE = 0.003$, 95% CI (0.003, 0.015)], as the confidence interval did not include zero. This finding is represented diagrammatically in Figure 1;

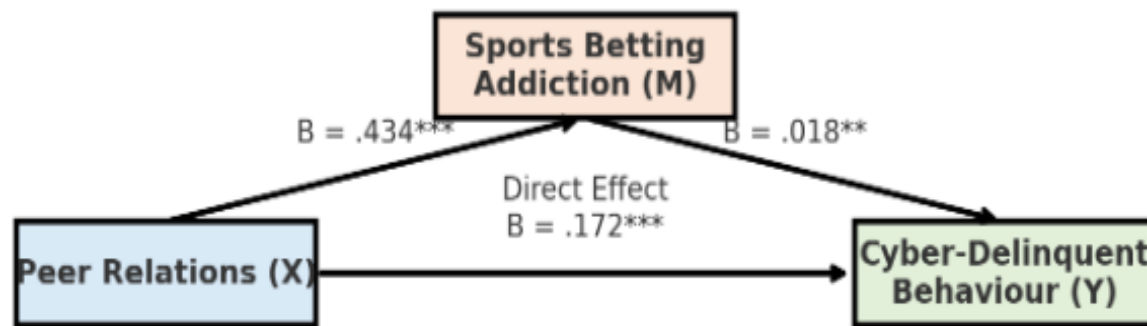


Fig 1: The mediating role of sports betting addiction on the influence of peer relations and cyber-delinquent behaviour.

Table 4:

Summary table of process macro showing the mediating effect of sports betting on the predicting power of psychological abuse on cyber-delinquent behaviour among students

Path	Effect (B)	SE	t	p	95% CI [LL, UL]
Direct Effect (X → Y)	0.067	0.006	11.87	<.001	[0.056, 0.078]
Indirect Effect (X → M → Y)	0.009	0.002	–	–	[0.005, 0.014]
Total Effect (Direct + Indirect)	0.076	–	–	–	–

Note: X = Psychological Abuse, M = Sports Betting Addiction, Y = Cyber-Delinquent Behaviour.

This section test the mediating effect of sports betting on the predicting effect of psychological abuse on cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. Results indicated that psychological abuse significantly predicted sports betting addiction, [$B = 0.16$, $SE = 0.03$, $t(766) = 5.92$, $p < .001$]. In turn, sports betting addiction significantly predicted cyber-delinquent behaviour, [$B = 0.054$, $SE = 0.007$, $t(765) = 7.35$, $p < .001$]. The direct effect of psychological abuse on cyber-delinquent behaviour remained significant, [$B = 0.067$, $SE = 0.006$, $t(765) = 11.87$, $p < .001$], suggesting that psychological abuse directly associated with increase in the likelihood of engaging in cyber-delinquent acts. Importantly, the indirect effect through sports betting addiction was also significant, [$B = 0.009$, $BootSE = 0.002$, 95% CI (0.005, 0.014)], as the confidence interval did not include zero. This indicates that sports betting addiction partially mediates the relationship between psychological abuse and cyber-delinquent behaviour. This result is represented diagrammatically as seen in Figure 2.

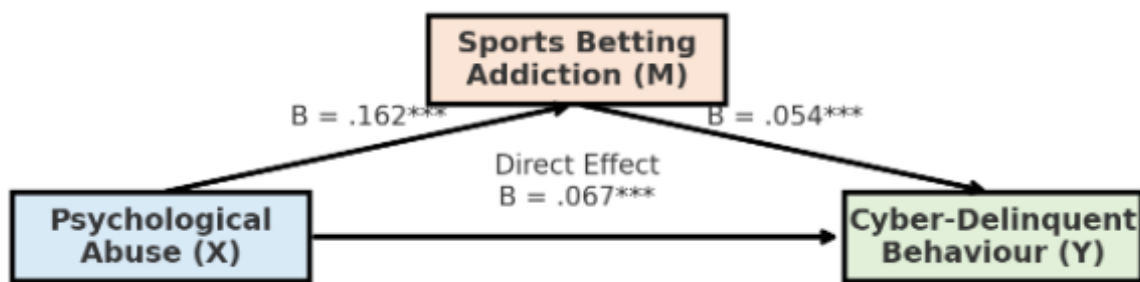


Fig 2: The mediating role of sports betting addiction on the influence of psychological abuse and cyber-delinquent behaviour.

DISCUSSION

This study was conducted to investigate peer relations and psychological abuse as predictors of cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria with the mediating role of sports betting addiction. Two hypotheses were formulated and tested and the result is presented in the previous section. The first hypothesis predicted that peer relations, psychological abuse, and sports betting addiction would significantly, independently, and jointly predict cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. The regression analysis supported this assumption, with the model explaining 46.4% of the variance in cyber-delinquent behaviour. This medium effect size, based on Cohen's (1988, 2013) guideline, demonstrates that these psychosocial factors together form a strong explanatory framework for understanding students' involvement in online deviance. The finding is particularly relevant in a Nigerian context where digital crime has been reported as a pressing national issue, disproportionately involving young people between the ages of 16 and 30 (Asher, 2025; Levi, 2025; Schidlow, 2025).

Among the predictors, peer relations emerged as the most powerful. This underscores the centrality of peer influence in shaping students' attitudes and behaviours, in line with social learning theory (Bandura, 1977) and prior findings that delinquent peer groups encourage cyber-fraud and similar activities (Ajake, Kalu, & Ugwu, 2024; Babatunde & Muraina, 2015). In Nigeria, peer endorsement of internet fraud—commonly called *yahoo-yahoo*—has been shown to normalize and even glamorize cybercrime, presenting it as a viable route to wealth and status (Egodi, Uka, & Chidubem, 2024). Such group dynamics provide the social validation necessary for undergraduates to rationalize involvement in cyber-delinquency, which explains why peer relations carried the strongest predictive weight in this study.

Psychological abuse was also found to be a significant predictor, although with a smaller effect size compared to peer relations. This suggests that emotionally abusive experiences such as humiliation, rejection, or manipulation may contribute to an increased susceptibility to cyber-delinquent behaviour. The result supports General Strain Theory (Agnew, 1992), which posits that adverse experiences generate strain, leading individuals to adopt deviant coping strategies. Students experiencing psychological abuse may turn to the internet for anonymity and power, using it as an outlet for their frustrations or unmet emotional needs (Shields & Cicchetti, 2001; Nagoshi et al., 2024). In the South-Eastern Nigerian context, where emotionally harsh disciplinary practices are still culturally embedded (Ekeigwe, Ikpeama, & Ene, 2024), the predictive role of psychological abuse becomes particularly concerning, as it may push students toward maladaptive digital outlets.

Additionally, sports betting addiction predicts significantly cyber-delinquent behaviour, which establishes an independent contribution, aligning with studies that highlight rapid growth in sports betting among youths in Nigeria, which is often driven by peer encouragement as well as aggressive marketing (Igo & Ehigie, 2021; Okagbue et al., 2019). Betting is mostly viewed as path to quick wealth or entertainment, but compulsive gambling leads frequently to impulsivity, desperation and financial strain and as such, these conditions increases undergraduates' likelihood in engaging online offences and cyber-fraud, in sustaining their habits of gambling or losses recovery (Ayandele, Oguntayo, & Olapegba, 2021; Okechukwu et al., 2022). NOI Polls (2019)'s finding echoes the significance of addiction in betting, by asserting that young Nigerians in large proportion, particularly students participate regularly in betting activities, which heightened their vulnerability to gambling problems as well as behaviours of related risks.

Furthermore, the results affirms that sports betting addiction, peer relation and psychological abuse have joint prediction on cyber-delinquent behaviour in ways that are meaningful. The convergence of these factors resonates with Problem Behaviour Theory (Jessor, 1991), which posits that risk behaviours cluster due to shared psychosocial systems. In South-Eastern Nigeria, where economic hardship and societal expectations exert strong pressure on youths to achieve material success, the normalization of cyber-fraud and gambling further compounds this risk (Wariboko & Nwanyanwu, 2024; Onyendi, 2025).

The second hypothesis which stated that sports betting addiction will significantly mediate the predicting value of peer relations and psychological abuse on cyber-delinquent behaviour among undergraduates in South-Eastern Nigeria. The results showed that students who spend more time with peers were more likely to develop betting habits, and this addiction, in turn, increased their chances of engaging in cyber-delinquent acts such as internet fraud. Similarly, undergraduates who experienced psychological abuse were also more likely to turn to betting, and this gambling tendency partly explained why they became more involved in cyber-delinquency. However, in both cases, the direct effect of peer relations and psychological abuse on cyber-delinquent behaviour still remained strong, meaning sports betting only explained part of the connection.

It is important to note that, among young people, when students belong to peer circles where risky behaviours like betting or cybercrime are encouraged, they are more likely to copy these habits. Likewise, when students face psychological abuse—such as insults, neglect, or manipulation—they may seek escape or relief in betting. Unfortunately, this coping mechanism does not reduce their problems but instead increases the likelihood of turning to cybercrime to fund gambling habits or prove status within their peer group. This is consistent with theories like Social Learning Theory (Bandura, 1977), which explains how behaviours are learned by observing others, and General Strain Theory (Agnew, 1992), which argues that stressful life experiences push individuals toward unhealthy coping strategies.

The results are relevant in Nigeria contexts particularly, because sports betting has gradually become a common phenomenon particularly among young people. Sports betting has been accepted particularly among undergraduates, and it is usually linked to illegal or risky activities (Ayandele, Oguntayo, & Olapegba, 2021; Okechukwu et al., 2022). By implication, reducing cyber-delinquent behaviour among students cannot focus only on addressing psychological abuse or limiting peer influence, but should tackle gambling, which is seen as a channel that is hidden and which connects these factors to actions of delinquency.

Conclusion and Recommendations

This study shows that psychological abuse and peer relations (as independent variables) as well as sports betting addiction (as a mediating variable) predicts significantly delinquent behaviour among undergraduates particularly in South-Eastern Nigeria. Both psychological abuse as well as sports betting played nobles roles in predicting cyber-delinquent behaviour, while peer influence emerged as a strongest predictor. Moreover, the studies showed that sports betting was had partial mediating effects on both peer relations as well as psychological abuse, on cyber-delinquent behaviour, which highlights the complex pathway, by which both psychological and social factors contributes to misconducts online. This means that cyber-delinquent behaviour among Nigerian students cannot be explained by just one factor, but a mixture of emotional challenges, social pressures as well as behavioural addictions.

It is therefore recommended based on this results that policymakers as well as universities should set priorities on comprehensive interventions which addresses both indirect and direct influences of cyber-delinquent behaviours. Mentorship programs should be peer focused, as they are introduced for encouraging relationships that are healthy, and which discourages online behaviours that are risky. Moreover, counseling services should be encouraged and strengthened in supporting students that are dealing with psychological abuse, while launching awareness campaigns that highlights the dangers of sports betting addictions. Additionally, regulatory bodies have a role to play by strictly monitoring betting platforms, so that accessibility for vulnerable youths should be reduced. When these strategies are adopted, cyber-delinquent behaviours can be reduces and then safe academic environments can be promoted for undergraduates in Nigeria.

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