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Clinical Psychology

## Psychological Factors and Sports Gambling Behaviour: Findings among Selected Adolescents in Nigeria

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### Abstract

**Background:** Sports gambling behaviour especially among adolescents has continued to be a source of research concern among psychologists and concerned stakeholders in Nigeria. This is because of the mental health implications it has for the individuals involved, in addition to the financial risks and other attendant social consequences. In an effort to ameliorate this problem, the study examined the role of parenting styles, optimism and peer pressure on sports gambling behaviour among adolescents.

**Methods:** A cross-sectional research design was used to select 200 adolescents aged 12 to 16 years (Mean age = 14.08; SD = 1.78) who were purposively selected in a sub-urban community in Nigeria. A structured questionnaire with measures of parenting styles, optimism, peer pressure, sports gambling, and demographic information was used to extract the data that were analysed using correlation and hierarchical multiple regression.

**Results:** From the correlation analyses, there was a significant positive relationship between authoritative parenting style and sports gambling behaviour, a positive relationship between permissive style and sports gambling behaviour, and a positive relationship between peer pressure and sports gambling behaviour. Multiple regression analyses revealed that authoritative style predicted sports gambling behaviour. Permissive parenting style also predicted sports gambling behaviour. Furthermore, peer pressure also predicted sports gambling behaviour.

**Conclusion:** Parenting styles and peer pressure emerged as strong factors impacting sports gambling behaviour among adolescents within the study setting but optimism did not. These findings suggest that psychologists should consider the role of parenting styles (authoritative and permissive) and peer pressure when putting up intervention programs aimed at curbing sports gambling behaviour among adolescents.

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Addiction; Developing country; Psychological factors; Recreational activities; Sports gambling.

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## 1. Introduction

Sports is one of the recreational and exciting engagements that most people across all spheres of life enjoy and are passionate about. Nowadays, people do not only derive enjoyment from different kinds of sports but rather make some commitments and earnings from sports activities (Killick & Griffiths, 2019) by engaging in what the literature refers to as gambling behaviour. Gambling is a form of behaviour that has potential risks and benefits to the health, well-being, and crimes-related behaviour of individuals, families, and communities (Ayandele et al., 2020; Cosenza et al., 2022; Cosenza et al., 2022). Gambling can also be referred to as the act of betting something of small value (usually money) for a chance to win something of greater value (Ferentzy & Turner, 2013). Sports gambling/betting has become one of the fastest-growing sectors in the world and Nigeria in particular (Aguocha et al., 2019a; Ayandele et al., 2021). This is because of the increasing number of betting companies, increasing unemployment and underemployment, 'get rich quick syndrome', legalisation of gambling and easy accessibility to online gambling platforms (Akanle & Fageyinbo, 2015; Cosenza, Ciccarelli, Pizzini, et al., 2022; Owonikoko, 2020). Also, advertising and rebranding are tools for appealing to young adolescents who are their main target in a bid to increase sales and profit (Monaghan et al., 2008; Okechukwu, 2022).

Sports gambling is thought to have increased through the acceptance of gambling as a legitimate form of entertainment, particularly in relation to international soccer betting (Afe et al., 2022; Aguocha et al., 2019a; Aguocha et al., 2019b). The sports gambling industry is sometimes used by big players to expand their customer bases (Akanle & Fageyinbo, 2019). Several agencies use the proceeds from gambling to support the government in development projects as part of their corporate social responsibility (CSR) programs (Aguocha et al., 2019a). Diverse forms of advertisement have also made gambling look more lucrative and glamorous which in the long run has minimised any form of stigma that can be linked with the act (Monaghan et al., 2008). The popularity of sports gambling has been growing among young people and is unfortunately now common among adolescents (Kyei-Gyamfi et al., 2022; Okechukwu, 2022). It is true that Section 34 of the National Lottery Act of Nigeria (2005) prohibits the gambling of individuals under 18 years of age, and that a violation of this section is punishable by imprisonment, fine or both (National Lottery Act, 2005). However, many adolescents are seen in betting shops as well as different online betting sites staking various games like football, horse racing and greyhound racing, track racing, basketball, and auto racing, among others. The upsurge in adolescents engaging in sports gambling is also not new in the setting where this study was

conducted. The lack of strict monitoring or enforcement of the National Lottery Act (2005) in Nigeria may be caused by weak and poor policy implementation (Aguocha & George, 2021; Ssewanyana & Bitanhirwe, 2018).

The prevalence of gambling among adolescents across the world has been established in the extant literature. For instance, a survey of teenagers in Canada, the USA, Norway, and Australia found that 63% to 82% of them gamble each year while 4% to 7% of adolescents are considered to be pathological gamblers (Derevensky & Gupta, 2004; Johansson & Götestam, 2003; Monaghan et al., 2008; Pitt et al., 2017). Research from the UK also reported that there was an increase in adolescent gamblers by 1.8% from 2018 to 2019. Of the total adolescent gamblers aged between 11 to 16 years, 1.7% are problem gamblers, which implies that about 55,000 young people are affected across the United Kingdom (Gambling Commission, 2019). In Africa, A study by Kyei-Gyamfi (2022) in Ghana found that 3.1% of children aged 8-17 had engaged in gambling-related activities. Also, Odame et al. (2021) found that young people, including children, engaged in sports betting, card games and lotteries in the country. Furthermore, it has been reported that Kenya has the highest proportion of youth, including adolescents, who have previously engaged in gambling or betting (76%), followed by Uganda at 57% (Gathuru, 2021; Kaggwa et al., 2022; Ssewanyana & Bitanhirwe, 2018). Recently in Nigeria, Abdulqadir et al. (2023) found that adolescents aged between 10-14 years had high betting addiction tendencies while 34.6% of the respondents aged 15 years indicated a high gambling addiction. Similarly, almost 57% of high school students in Nigeria have gambled in the past (Aguocha, Duru, Nwefoh, Amadi, et al., 2019a).

Sports gambling behaviour may be said to have some positive effects such as the possibility of increased revenues and source of income to some participants, but its detrimental effects are so enormous and include a wide range of intricate issues, including criminal behaviour, subpar academic performance, school truancy, depressive symptoms, increase in school dropouts, mood swings, suicide, low self-esteem, deteriorating social relationships, and substance abuse (Cosenza et al., 2022; Kang et al., 2019; Ssewanyana & Bitanhirwe, 2018). Numerous studies have linked harmful gambling to social and health problems, such as impacts on families and relationships, intimate partner and family violence, and individual health and well-being (Frisone, 2021; Hofmarcher et al., 2020; Muggleton et al., 2021). There is also evidence that adolescent gambling results in problems such as homelessness, stealing from parents and family members to fund gambling (Chidozie & Ekechukwu, 2019) as well as increased risk of child abuse or neglect (Lane et al., 2016). Similarly, Livazović and Bojčić (2019) reported that adolescent problem gambling has significant psychological, social and financial consequences.

Giannotta et al. (2022) in their findings also suggest that problem gambling is strongly linked to mental health problems like depressive, psychosomatic, and ADHD symptoms, as well as sleep problems. Again, Riley et al. (2018) conducted a systematic review and meta-analysis on gambling-related harm and reported that problem gambling could harm partners and children which could lead to significant physical and physical health problems.

Despite the aforementioned negative effects of sports gambling behaviour, it is important to understand psychological factors that may predict sports gambling behaviour among adolescents because of the implications it has for their future lives. Also, A review of the previous literature shows that the collective influence of parenting styles, optimism and peer pressure on sports gambling behaviour has not been explored. In addition, none of the studies in Nigeria investigated sports gambling behaviour among adolescents in the current study setting. The only study found in Nigeria among adolescents explored the prevalence of betting addiction among in-school children aged 10-15 years (Abdulqadir et al., 2023). Also, Kyei-Gyamfi et al. (2022) explored the predictors of gambling behaviour among adolescents which was carried out in Ghana. The two studies differ from the present study in scope. Ayandele et al. (2021) have also suggested that more psychosocial factors should be investigated in sports gambling/betting behaviour in future studies. The call by this author and the gap in the extant local literature motivated the conduct of this study. Based on this foregoing, the study investigated the role of parenting styles, optimism and peer pressure on sports gambling behaviour. The outcome of the findings can be used to formulate psycho-educational programmes aimed at ameliorating sports betting addiction among adolescents. The theory of planned behaviour (TPB) offers a framework for understanding adolescent problem gambling by examining three key factors: attitudes, subjective norms, and perceived behavioural control (Ajzen, 1991). Studies suggest that negative anticipated emotions, attitudes and perceptions of behavioural control influence adolescent gambling behaviour, which is in turn directly related to gambling frequency, problem gambling behaviours and other mental health problems (Myles et al., 2020; St-Pierre et al., 2015).

Parenting styles are the ways in which parents direct and educate their children within the context of family interactions (Warsah et al., 2021). Three typologies of parenting styles are known which are authoritarian, authoritative, and permissive parenting styles (Aloia & Warren, 2019; Baumrind, 1991). Authoritarian parenting style involves strong regulations, strict supervision, and less focus on children's minds (Baumrind, 1991). This parenting style often makes children comply with rules and regulations given to them by their parents (King et al.,

2016). According to Ren et al. (2020), the authoritative parenting style fosters good and open communication with children and incorporates well-controlled parenting (Lau & Power, 2020) just as Huver et al. (2007) and Lu and Chang (2013) noted that this parenting approach offers children strong psychological support systems and enough safeguards. The permissive parenting style gives children the freedom to act however they like without parental supervision (Baumrind, 1991; Huver et al., 2007). This parenting approach results in children who lack emotional control and who lack self-discipline (Baumrind, 1991; Tu et al., 2018). Therefore, the three kinds of parenting styles will provide different ways of dealing with children who engage in sports gambling behaviour

There are few studies directly linking parenting styles and gambling behaviour in the literature, for instance, Jonkman et al. (2013) explored the role of parenting styles on problematic gambling behaviours via family environments. The study found that permissive parenting was associated with gambling while authoritative mothers were not linked with gambling. Suhail and Fakhr (2022) found that there is no link between game addiction and parenting style. Leeman et al. (2014) found that perceived parental permissiveness is significantly associated with adolescent gambling behaviours. McComb and Sabiston (2010) discovered that the home environment and parenting practices had an indirect impact on compulsive gambling behaviour. Studies such as Barnes et al. (1999); Lo et al. (2020); and Ste-Marie (2005) revealed an association between permissive parenting and adolescent problems gambling. Also, Warsah et al. (2021) found that a permissive parenting style contributed to children's gaming addiction. Likewise, Chen et al. (2020), Maftai and Enea (2020), Özgür (2019), and Siste et al. (2020) all found that permissive parenting style predicted internet gaming disorder. In their systematic review and meta-analysis of longitudinal studies of early risk and protective factors for problem gambling, Dowling et al. (2017) identified parental supervision as one of the protective factors against problem gambling.

Optimism may also play a role in the adolescent's sports betting behaviour. According to Peterson (2000), optimism is the belief that there will be more positive events than negative ones in the future. Optimists are persons who usually think that good things will happen to them rather than bad ones (Scheier & Carver, 1985). Optimism entails a measure of hope in one's approach to life. It is an ill-defined phrase that has been used to describe a variety of diverse emotions, situations, and attitudes throughout social and historical contexts. Humans frequently experience optimism, but it can manifest in many different ways depending on the situation at hand and the specific social setting. There is scarce empirical evidence on optimism and sports gambling behaviour. Gibson and Sanbonmatsu (2004), for instance, found that optimists have higher odds of continuing to gamble despite unfavourable outcomes and have

more optimistic gambling expectations. Xia et al. (2018) found that susceptibility to gambling near-win outcomes is not related to optimist and pessimist groups. In another study conducted by Arogundade and Abdulahi (2020), they found a significant relationship between optimism and gambling. There are also studies on optimism and positive and negative behavioural outcomes in the literature. For instance, numerous researches have demonstrated that dispositional optimism is positively connected with pleasant emotions and adversely correlated with depressive symptoms (Kapikiran, 2012; Kube et al., 2018; You et al., 2009). Higher dispositional optimism has been linked to increased risk-taking (Dohmen et al., 2011), although other studies have found a positive correlation (Barel, 2019) or none at all (Macko & Tyszka, 2009). According to Gherasim et al. (2016), dispositional optimism may interact with mood to affect a person's perception of the likelihood of future happy experiences. Therefore, it can be deduced that optimism may play a significant role in the sports gambling behaviour of adolescents.

Peer pressure is the impact enforced by a person of the same age group or individuals, inspiring others to change their attitudes, or actions to fit into a group (Laursen & Veenstra, 2021). Peer pressure is a key component of teenage and young child socialization. Scholars have also asserted that peer pressure can exert stronger influences than parental socializing efforts (McCoy et al., 2019). Hence pressure from peers can lure many adolescents toward engaging in sports gambling as a way to be socially accepted among their peers. Studies have also established a link between peer pressure and gambling behaviour. Ayandele et al. (2021) established a significant positive correlation between perceived self-efficacy, peer pressure and sports betting among university students. Lavojo (2020) in their study revealed that peer pressure remains one important factor that influences sports gambling among youths. In another related study, Oyetunji-Alemede et al. (2019) found that peer pressure had a significant influence on addictive gambling behaviour among 200 undergraduate students of Obafemi Awolowo University. In their study of 749 young adults in Southwest Nigeria, Ayandele et al. (2020) discovered that peer-based gambling significantly predicts attitudes toward sports betting. Sanscartier et al. (2020) also found that peer pressure was the most important factor in predicting betting behaviour among Canadian university students. A strong association was also found between peer pressure and adolescent problematic gambling behaviour in another study by Donati et al. (2023). Based on the outcome of these studies, it is also assumed peer pressure may play a role in the sports gambling behaviour of adolescents within the study setting.

## 1.1 Hypotheses

1. There is a significant relationship between parenting styles, optimism, peer pressure and sports gambling behaviour among adolescents.
2. There is a significant predictive effect of parenting styles, optimism and peer pressure on sports gambling behaviour among adolescents.

## 2. Materials and methods

### 2.1 Design and sampling

The study adopted a cross-sectional survey design. This is because data were collected at a specific point in time across different participants. Ten major betting shops in Ile-Ife, Osun State Nigeria were conveniently sampled while a purposive sampling technique was used to recruit adolescents as participants in the study.

### 2.2 Participants

The research sample consisted of 200 adolescents ( $n = 171$  males; 29 females) who are between the ages of 12 and 16 years (Mean age = 14.08; SD = 1.78). Table 1 shows the respondents' socio-demographics in the study.

**Table 1.** Respondents' Socio-demographics Characteristics (N = 200)

Variables	Categories	Frequency (%)
Age		Mean (14.08) SD (1.78)
Gender	Male	171(78.1)
	Female	29(21.9)
Religion Affiliation	Christianity	106(53.0)
	Islam	84 (42.0)
	Traditional	10(5.0)
Family type 176(88.0)	Monogamous	
	Polygamous	24(12.0)

## 2.3 Measures

### *Sports Gambling Behaviour Scale*

Sports gambling was measured using the 10-item gambling passion scale (GPS) developed by Rousseau et al. (2002). Sample items include “I cannot live without this gambling game”, “I am emotionally dependent on this gambling game”. Participants responded to the questions using a 5-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. Higher score indicates higher gambling behaviour. The Cronbach reliability score as reported by the authors for the two subscales is 0.90 and 0.76 respectively. 0.91. A pilot study was conducted and a Cronbach’s alpha of 0.85 and 0.98 were reported for the two sub-scales and 0.89 was obtained for the composite score.

### *Parenting Style Scale*

Parenting style scale was measured using the 15-item Parenting Style (MOPS) developed by Parker et al. (1997). The scale consists of three dimensions namely indifference (permissive); (2) abusive(authoritarian) and over-control (authoritative). Items 1, 3, 4 ,12, 13 and 14 measure authoritative parenting, 2, 6, 8, 10, 11 and 15 measure authoritarian parenting while 5, 7 and 9 measure permissive parenting. An example item is “my parent spends free time with me”. The scale was scored on a 4-point scale ranging from 0 – not true at all, to 3 – extremely true. The authors reported a reliability of 0.74 for authoritative, 0.69 for authoritarian and 0.85 for permissive parenting. In this study a reliability of 0.77 was obtained for authoritative, 0.70 was obtained for authoritarian and 0.69 was obtained for permissive parenting.

### *Optimism Scale*

Optimism was captured using the 10-item optimism scale developed by Scheier and Carver (1985). The scale was scored on a five-point Likert scale of 1- agree a lot to 5-disagree a lot. A sample of the item reads “Overall I expect more good things to happen to me than bad.” The author of the scale reported a reliability of 0.76 while in this study a Cronbach alpha of 0.81 was reported for this scale. Higher score on the scale indicates greater levels of optimism.

### *Peer Pressure Scale*

Peer pressure was assessed using the 11-item peer pressure scale developed by Santor et al. (2000). The scale was scored on a five-point Likert scale ranging from 1-strongly agree to 5-strongly disagree. A sample of the items reads “my friends could push me into doing just about anything.” The authors of the scale reported a reliability of 0.84 while in this study a reliability

of 0.70 was reported. High score on the scale means high peer pressure while a low score means low peer pressure.

#### *Procedure and data analysis*

The study was approved by the Research Reviews and Ethics Committee of the Faculty of Social Sciences, Obafemi Awolowo University Ile-Ife (FSS/OAU/RREC/0752). Thereafter, the researcher recruited two research assistants who helped in the administration and collection of the data. The data collection took place across 10 major betting shops in core areas in Ile-Ife, a Yoruba-speaking community in Nigeria. Since adulthood starts at 18 years in Nigeria, only respondents between ages 10 and 17 were considered eligible for the study. Also, respondents must have engaged in sports betting at least once in their lifetime, and the owners of the betting shop must give consent to be considered eligible. The research team approached the betting shop owners to explain the importance and rationale of the study and also assured them that responses would be anonymous and confidential and that only adolescents would be needed for the study. The research team gave some questionnaires to some adolescents who were found in some betting shops at the time of the visit. In some cases, the bet shop owners collected the questionnaire and helped distribute it to adolescents which were collected at a later date. As these participants were not up to 18 years old, the informed consent form was verbally given by the bet shop owners due to the difficulty in getting the participants' parents/guardians and because many of the children would not want their parents/guardians to know that they are into sports betting. An a priori sample size determination was employed using G\*Power, version 3.1 for the t-tests family and linear multiple regression statistical test based on the anticipated effect size of 0.15, with a given  $\alpha$  of 0.05 and 3 predictor variables. A minimum total sample size of 74 was recommended with the actual power of 0.95. A total number of 250 questionnaires were distributed but in all 232 questionnaires were retrieved but only 200 were found useable as 32 of the questionnaires were either missing or had incomplete responses. The administration of the questionnaires took approximately 3 weeks across 10 major betting shops in the study area.

### **3. Results**

#### *Hypothesis One*

There is a significant relationship between parenting styles, optimism, peer pressure and sports gambling behaviour among adolescents. The analysis was tested using zero-order correlation matrix analysis and the analysis is presented in Table 2.

**Table 2.** Mean, SD, Coefficient Alpha, Skewness, Kurtosis and Zero-Order Correlations of the Study Variables

Variables	Mean	SD	$\alpha$	Skewness	Kurtosis	1	2	3	4	5	6	7
1. Age	14.08	1.78		.21	-.58	-						
2. Authoritative style	18.89	2.14	0.77	-.55	-.37	-.08	-					
3. Authoritarian style	19.07	1.58	0.70	-.19	.36	-.06	.44**	-				
4. Permissive style	9.98	1.16	0.69	-.25	-.14	-.07	.12	21**	-			
5. Optimism	36.15	5.35	0.81	-.59	.43	-.09	.12	.04	.01	-		
6. Peer Pressure	32.40	4.63	0.84	-.20	-.37	.10	.07	.07	.11	-.01	-	
7. Sports Gambling behaviour	72.42	9.03	0.78	-.44	-.06	-.07	.16*	.09	.17*	-.09	.38**	-

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

The bivariate correlations, means, standard deviation, skewness, and kurtosis analyses are displayed in Table 1. The dataset met the assumption of normality of data distribution based on the standard set by Tabachnick and Fidell's (2019) acceptable range of +2 and -2. Results of the correlation revealed no significant relationship between age and sports gambling behaviour ( $r = -.07, p > .05$ ). There was a significant positive relationship between authoritative parenting style and sports gambling behaviour ( $r = .16, p < .05$ ). This means that adolescents who perceive that their parent uses high authoritative style tend to report higher sports gambling behaviour. There is no significant association between authoritarian style and sports gambling behaviour ( $r = .09, p > .05$ ). Furthermore, there is a positive relationship between permissive style and sports gambling behaviour ( $r = .17, p < .05$ ), signifying that adolescents who perceive that their parent uses high permissive style tend to report high sports gambling behaviour ( $r = .17, p < .05$ ). There is no significant relationship between optimism and sports gambling behaviour ( $r = -.09, p > .05$ ). Also, there was significant positive relationship between peer pressure and sports gambling behaviour ( $r = .38, p < .01$ ). This means that adolescents who perceive high peer pressure tends to have high sports gambling behaviour.

## Hypothesis Two

Authoritative parenting style, permissive parenting style and peer pressure significantly predict sports gambling behaviour.

**Table 3.** Hierarchical Multiple Regression Analysis of Parenting Styles, Optimism and Peer Pressure on Sports Gambling Behaviour

Independent Variables	Model 1			Model 2			Model 3		
	$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
Authoritative style	.16	2.29*	.02	.14	2.01*	.04	.12	1.84	.06
Permissive style				.15	2.22*	.02	.11	1.78	.07
Peer pressure							.35	5.48 **	.00
R	.16			.22			.42		
R <sup>2</sup>	.03			.05			.18		
$\Delta R^2$	.02			.04			.16		
F	5.27*			5.16*			13.96**		
Df	1,198			2,197			3,196		

Note: \*\* $p < .01$ , \* $p < .05$ ;  $\Delta R^2$  = Change in R<sup>2</sup>; F = Change in F;  $\beta$  = Standardised regression coefficient, sig= significance level; Criterion variable: = sports gambling behaviour

Results revealed that when authoritative style was entered in the first model there was significant positive prediction on sports gambling behaviour ( $\beta = .16$ ,  $t = 2.29$ ,  $p < .05$ ). The contribution of authoritative parenting style in explaining the variance in sports gambling behaviour was 3% ( $R^2 = .03$ ), and the model was significant,  $F(1, 198) = 5.27$ ,  $p < .05$ . In model 2, permissive parenting style was added in the regression model and there was a significant positive prediction on sports gambling behaviour ( $\beta = .15$ ,  $t = 2.22$ ,  $p < .05$ ). The contribution of permissive parenting style in explaining the variance in sports gambling behaviour was 5% ( $R^2 = .05$ ), and the model was significant,  $F(2, 197) = 5.16$ ,  $p < .05$ . In model 3, peer pressure was included in the regression model and it revealed that there was significantly positive prediction on sports gambling behaviour ( $\beta = .35$ ,  $t = 5.48$ ,  $p < .01$ ). The contribution of peer pressure in explaining the variance in sports gambling behaviour was 18% ( $R^2 = .18$ ), and the model was significant,  $F(3, 196) = 13.96$ ,  $p < .01$ . The strongest predictor of sports gambling behaviour in the present study was peer pressure ( $\beta = .35$ ), and all the predictor variables in the study accounted for 16% of the variance in sports gambling behaviour ( $\Delta R^2 = .16$ ).

#### 4. Discussion

The study aims to examine the predictive role of parenting styles, optimism and peer pressure on sports gambling behaviour among adolescents in a suburban community in Nigeria. The first hypothesis which was partially confirmed, revealed that authoritative parenting, permissive parenting and peer pressure have a significant positive relationship with sports gambling behaviour. This study finding is not standing in isolation but agrees with the outcome of some

previous studies (Barnes et al., 1999; Dixon et al., 2016; Jonkman et al., 2013; Leeman et al., 2014; McComb & Sabiston, 2010; Suhail & Fakhr, 2022) who established similar findings. For example, Jonkman et al. (2013) had previously established an association between parenting styles and adolescent gambling behaviour. Leeman et al. (2014) also reported an association between parenting styles and problem gambling among adolescents. Also, Dixon et al. (2016) in their study had reported that consistent disciplinary practices by the parents' buffer gambling problems, albeit at low-level adolescent gambling. Authoritative parenting style is characterized by high levels of parental control and involvement, along with open communication and support. It promotes a nurturing environment that encourages children to develop self-control and make responsible decisions. In the context of sports gambling, authoritative parenting can have a significant positive relationship with this behaviour. Children raised in authoritative households may have been exposed to discussions about responsible gambling and the potential risks involved. They may have learned to approach gambling in a more informed and cautious manner, making them less likely to develop impulsive or excessive gambling behaviours. Permissive parenting style is characterized by low levels of control and discipline, with parents being more lenient and indulgent towards their children's desires. While this parenting style is often associated with negative outcomes, such as lack of self-control or discipline, it can potentially have a positive relationship with sports gambling behaviour. Permissive parents may be more tolerant of their children's participation in gambling activities, considering it a form of harmless entertainment. This leniency and permissiveness can lead to a positive association with sports gambling behaviour, as children may perceive it as an acceptable and endorsed activity within their family environment (Campbell et al., 2011; McComb & Sabiston, 2010).

The finding was also in agreement with some past studies (Ayandele et al., 2020; Donati et al., 2013; Situ & Mo, 2016) who all found a strong association between peer pressure and adolescent problematic gambling behaviour. Peer pressure is a powerful influence on individuals' behaviour, especially during adolescence and young adulthood. In the context of sports gambling, peers can play a significant role in shaping attitudes and participation. If a social circle or peer group places a high value on sports gambling and engages in it regularly, individuals are more likely to conform to that behaviour. This positive relationship with sports gambling behaviour may stem from the desire to fit in, gain acceptance, or seek social approval from their peers. As a result, individuals may engage in sports gambling as a means of enhancing their social status within their peer group, leading to a positive relationship between peer pressure and sports gambling behaviour. Optimism is often associated with a positive mindset and a belief in favourable outcomes (Arogundade & Abdulahi, 2020). However, this study's result

indicates that optimism does not have a significant relationship with sports gambling behaviour. This suggests that individuals' decision-making processes related to sports gambling may not be strongly influenced by their optimistic outlook. Other cognitive factors, such as rational thinking, information processing, or personal values, perhaps may have a greater impact on individuals' decisions to engage in sports gambling. Secondly, the study found that authoritative, permissive parenting styles and peer pressure all predicted sports gambling behaviour.

This finding replicates the finding of previous studies (Maftai & Enea, 2020; Ste-Marie, 2005; Warsah et al., 2021) which also found that permissive parenting style predicted gambling behaviour. Additionally, Sanscartier, et al. (2020) as well found that peer pressure predicts betting behaviour among Canadian university students. Furthermore, Kam et al. (2017) found that peer pressure predicts gambling among university students in Macau. The finding of Lavojo et al. (2020) revealed that peer pressure remains one important factor that influences sports gambling among youths. This shows that authoritative parents because of their willingness to initiate open dialogue with their wards and provide emotional support may not raise concern whenever their adolescent(s) embrace sports betting as a way of life. These children have a strong foundation of trust and communication with their parents, enabling them to freely discuss their interests and activities, including sports gambling. This supportive and nurturing environment may encourage children to seek guidance and advice when making decisions, potentially leading to a predictive relationship between authoritative parenting and sports gambling behaviour. Also, the permissive nature of some parents, characterized by a lenient and indulgent approach, makes their child/children engage in any behaviour such as sports gambling because of the fewer restrictions on their activities. This predisposes them to risky behaviour such as sports gambling. This permissiveness can create an environment where children feel free to explore their interests and participate in activities without strict oversight or regulation. Consequently, the absence of clear boundaries and limitations in permissive parenting may contribute to the prediction of sports gambling behaviour, as children may perceive it as an acceptable and endorsed activity within their permissive family environment. Peer pressure is a potent influence on individuals' behaviours, and it can significantly predict sports gambling behaviour. Adolescents and young adults are particularly susceptible to peer pressure, as they strive for acceptance and social belonging. If a social circle or peer group values and participates in sports gambling, individuals are more likely to conform to that behaviour due to the desire to fit in and gain acceptance. The social reinforcement and validation received from peers can create a strong predictive relationship between peer pressure and sports gambling behaviour.

Individuals may engage in sports gambling to align with the norms and expectations of their peer group, highlighting the influence of peer pressure on their decision-making.

### **5. Conclusion and Implications**

This study has added some unique understanding to the sports gambling behaviour in the literature especially as it relates to some unique psychological factors among adolescents. The study concluded that authoritative, permissive parenting style and peer pressure play a significant impact in the determinant of sports gambling behaviour among adolescents. It is advised that proper counselling should be organised for parents with permissive and authoritative parenting styles, this intervention can make parents have the requisite skills and knowledge for monitoring and effective supervision of their adolescents. Also, our results support the need to promote behavioural change among adolescents through enhancing their personal resources and relational skills that can make them resist negative pressure from their mates or peers. Finally, the government through the appropriate agencies should implement and enforce policies and programmes formulated to sanitize the society.

### **6. Limitations and suggestions for further studies**

Despite the significant contributions of this study, it is still faced with some limitations. The first limitation is the inability to get informed consent from the parents of these adolescents. Also, the study is limited to only one major city in Nigeria, which may have limited the result generalization. Lastly, because of the sensitive nature of the study, some adolescents may have hidden their true feelings as most of them were noticed to be suspicious of getting by the law enforcement agencies. Hence, this set of population might have engaged in social desirability effects which may have affected the result outcome. It is therefore suggested that future studies should use a more confined population i.e. in-school child. Also, future studies might increase the scope of this study by increasing the population for better result generalization. Finally, more rapport should be established before data collection, this will make many of the respondents feel safe and be willing to give their true reflections of their gambling experience.

### **Ethical approval**

The study was approved by the Research Reviews and Ethics Committee of the Faculty of Social Sciences, Obafemi Awolowo University Ile-Ife (FSS/OAU/RREC/0752).

### **Conflict of interest statement**

The authors declare that the research was conducted in the absence of any potential conflict of interest.

**Informed consent statement**

Informed consent was obtained from all subjects involved in the study.

**Data availability statement**

Data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy and ethical restrictions.

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