

Correlates of Bullying among Adolescent Boys and Girls in Kano Metropolis Nigeria: A Mixed-Methods Study

Aminatu Ayaba Kwaku¹, Muktar Ahmad Gadanya^{1,2}, Fatimah Isma'il Tsiga-Ahmed^{1,2}, Rabi Ibrahim Jalo^{1,2}, Usman Muhammad Ibrahim¹, Auwalu Umar Gajida^{1,2}, Zubairu Iliyasu^{1,2}, Isa Sadeeq Abubakar^{1,2}

¹Department of Community Medicine, Aminu Kano Teaching Hospital, ²Department of Community Medicine, College of Health Sciences, Bayero University Kano, Kano, Nigeria

Abstract

Background: Bullying is the most common expression of violence among school children globally. Associated with an array of risk and protective factors, it affects the physical, mental, and social well-being of its victims. **Aims:** We assessed the prevalence, patterns, and correlates of bullying among in-school adolescent boys and girls in Kano Metropolis Kano, Nigeria. **Materials and Methods:** Using a mixed-methods study design, structured questionnaires were administered to 635 adolescent boys and girls across 30 schools. The point of saturation was achieved after 13 focus group discussions (FGDs) were conducted with the adolescents. One FGD each was carried out in 13 of the 30 sampled schools. Logistic regression and thematic analysis were used to analyse the data. **Results:** Adolescents were mainly Hausa/Fulani ($n = 522$, 86.9%), and the most represented age group was the middle adolescence ($n = 299$, 47.1%). Bullying was prevalent among 73.0% ($n = 230$) and 61.3% ($n = 196$) of the boys and girls, respectively, and this difference was statistically significant ($P < 0.01$). FGDs revealed that bullying was common, and sanctions against it in some girls' schools could possibly explain a lower prevalence. Boys who played sports (Adjusted odds ratio [aOR] = 0.48, 95% confidence interval [CI] = 0.26–0.90), who had delinquent friends (aOR = 0.60, 95% CI = 0.33–0.99) and girls with a good self-esteem (aOR = 0.39, 95% CI = 0.23–0.64), and who had delinquent friends ($P = 0.31$, aOR = 0.58, 95% CI = 0.36–0.95) were less likely to be bullied. On the other hand, the factors that increased the likelihood of being bullied were having unsupportive teachers (aOR = 2.88, 95% CI = 1.39–5.40), which increased the likelihood of being bullied. FGDs revealed that bullied adolescents were perceived as weak, unpopular, and had few friends. **Conclusion:** Bullying occurred among a significant majority of the in-school adolescents within the metropolis. More commonly in boys, bullying was verbal, as was social bullying among adolescent girls. Antibullying strategies should target individual behaviour, teachers' attitudes, and building a positive school climate. Teaching adolescents skills on self-awareness, self-management, and relationship management are necessary.

Keywords: Adolescents, bullying, Kano, school

INTRODUCTION

Bullying is a form of violence characterised by repetitive aggressive actions toward its victims. These targets are powerless, so they are unable to defend themselves because they may be outnumbered, smaller or less physically strong, or even less psychologically resilient than the bullying person.^[1] Globally, bullying is the most prevalent form of violence among children in school, and countries worldwide have identified it as a leading adolescent health concern.^[2,3]

Varying figures have been reported for bullying globally. Estimates for being involved in bullying, i.e., bullying others, being bullied, and being both a bully and a victim, ranged from 8.6% to 45.2% among boys and from 4.8% to 35.8%

among girls across Europe, the United States of America, and Canada.^[4] A low prevalence of 8.6% among boys was found in Sweden, and a value as high as 45.2% was reported in Lithuania. Among girls, the prevalence of bullying ranged from 4.8% in Sweden to 35.8% in Lithuania. Some of the other countries reported to have a high prevalence of bullying,

Address for correspondence: Dr. Fatimah Isma'il Tsiga-Ahmed, Department of Community Medicine, College of Health Sciences, Bayero University Kano/Aminu Kano Teaching Hospital, Kano, Nigeria. E-mail: fitsiga.cmed@buk.edu.ng

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Kwaku AA, Gadanya MA, Tsiga-Ahmed FI, Jalo RI, Ibrahim UM, Gajida AU, *et al.* Correlates of bullying among adolescent boys and girls in kano metropolis Nigeria: A mixed-methods study. Niger J Med 2022;31:261-7.

Submitted: 30-Sep-2021

Revised: 04-Apr-2022

Accepted: 09-Apr-2022

Published: 24-Jun-2022

Access this article online

Quick Response Code:



Website:
www.njmonline.org

DOI:
10.4103/NJM.NJM_173_21

including Latvia, Greece, Greenland, Romania, Turkey, and Ukraine. Low prevalence was found in Hungary, Norway, Ireland, Finland, Sweden, Iceland, Czech Republic, and Wales.^[4]

In a study in 10 Asian-Pacific countries, Australia, Hong Kong (Chinese), Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, and Taiwan, the highest percentage of bullying was found in the Philippines, estimated at over 60%. The lowest rate was from Korea, which was as low as 20%.^[5] In Africa, a study in public secondary schools in Kenya showed that about 91.4% of the students between the ages 13 and 18 were bullied.^[6] Data from Gauteng and South Africa showed a markedly lower prevalence rate of 34.4%.^[7]

Bullying is a daily and widespread occurrence in Nigerian schools, irrespective of the schools' size, type, and location.^[8,9] In Nigeria, the prevalence of school bullying ranges from 70% to as high as 85%.^[9,10] The high prevalence rates targeting this population are of public health concern.

Bullying behaviour is especially associated with physical and mental health effects due to its repeated nature, long duration, power imbalance, and helplessness in the victim.^[11] Social outcomes include running away from home, alcohol and drug abuse, and absenteeism, among others.^[12] It has also been found to affect the climate of schools and the morale of teachers and has substantial economic consequences for the affected individuals, families, and communities.^[13]

A public health approach to address bullying will involve exploring the concept of risk and protection as it relates to cultural influences, the school climate, peer processes, adult behaviours, and family interactions. This study assessed the prevalence, predictors, and health correlates of bullying among schooling adolescent boys and girls in Kano.

MATERIALS AND METHODS

Study setting

The study was carried out in Kano state, the northwestern geopolitical zone of Nigeria. Kano state has a 2020 estimated population of 13,735,602 projected at 2.6% per annum growth from the 2006 census. It consists of 44 local government areas (LGAs), out of which eight make up the metropolitan LGAs. These LGAs have an estimated 812 boys and 781 girls registered in public and private secondary schools. The majority of the schools in Kano are either boys or girls only. We visited a total of 60 schools (30 boys and girls schools each). An approximately equal number of private and public schools were visited.

Study design

A sequential, mixed-methods study design was used to determine the prevalence patterns and correlates of bullying behaviour among adolescents. A comparative cross-sectional design was used to select a secondary school-based sample of adolescent boys and girls. Adolescents were trained to administer the pretested structured questionnaires to their

peers. A focus group discussion (FGD) guide was used to conduct the FGD with the adolescents. These FGDs provided the opportunity for a more open discussion and clarification of some of the survey responses.

Study population

The study population were male and female students aged 10–19 years, enrolled for at least a year in the selected secondary schools within the eight metropolitan LGAs in Kano state.

Sample size

The sample size of 320 for the study's quantitative arm was estimated by applying the formula for comparing two proportions.^[14] Using a prevalence of bullying among boys from a previous study (63%),^[15] a prevalence of bullying among girls (47%),^[15] 95% confidence level, and a 5% margin of error, we obtained a minimum sample size of 148. In this study, a modification of the standard World Health Organization (WHO)/expanded program on immunization (EPI) methodology of the 30 by 7 clusters sampling technique was used; for this reason, an adjustment for the clustering effect was made. The sample size was multiplied by a factor of 2, and then 7.8% (nonresponse rate from a previous similar study)^[15] of the calculated sample size was added as an anticipated nonresponse rate. The minimum sample size of 319 was further rounded up to 320. Thus, 320 students were studied per study group.

Sampling technique

Adolescents were selected using a modification of the standard WHO/EPI methodology of 30 by 7 clusters survey technique^[16] as follows.

A list of all public and private secondary schools in Kano Metropolis with their total number of enrolled students was obtained. Their cumulative population was computed as 263,454 and 241,836 for the boys' and girls' schools, respectively. These figures were recorded on a cluster identification form. Subsequently, the sampling interval (SI) was calculated by dividing the total cumulative population in each school by the required 30 clusters, 8781 and 8062 for each study group, respectively.

A systematic sampling method was then used to obtain 30 clusters from the cumulative population. To commence school selection, two random numbers (7968 and 7001) were generated. The first cluster in each group was identified as the school whose cumulative population equaled or was within the range of the random numbers selected for each study group. All subsequent clusters were identified by repeatedly adding the SI to the cumulative population in the last school chosen (cluster); this was done until 30 schools (clusters) were identified.

The minimum sample size in each school selected was obtained by dividing 320 by 30. In every school/cluster, 11 students were sampled. The respondents were finally selected from the class enrolment registers using a systematic sampling technique. Having obtained the list of students that fall within that age group, it was then divided by 11 to obtain a SI to be used in each of the selected schools.

Adolescents in the same class were purposively selected as discussants for the FGDs. A total of 13 FGDs in the boys' and girls' schools, respectively, were carried out before saturation was reached.

Study instruments

A pretested, interviewer-administered, semistructured questionnaire was adapted from the compendium of assessment tools, a publication of the National Centre for Injury Prevention and Control of the Centers for Disease Control and Prevention.^[17] The second section (Section B: Victim-Only Scales) of the compendium was adapted to ascertain physical, verbal, social, and cyberbullying. Few open-ended questions were added in case a form of violent behaviour was not captured by the tool. Students were asked how frequently they had experienced any listed bullying behaviours: never, once, twice, or more in the past 12 months. Those that reported they have had an experience twice or more were considered to have been bullied.

Using a Likert scale format, other individual factors, such as delinquency, self-esteem, playing sports, family or societal factors such as neighborhood violence, peer delinquency, the safety of school premises, student/teacher relationship, parental supervision, and parenting styles, were determined. Affirmative responses scored higher points. Each response was scored between 1 and 5. Responses for each subscale were summed. The scale's midpoint was used as a decision point as it corresponds to agreeing with the behaviour being assessed. Respondents with scores on the midpoint or higher on each scale indicated the presence of the factor being considered. To determine the social class of the adolescents, we used the Oyediji Social Classification scale.^[18] Body mass index was calculated from the adolescents' weight and height measurements, and >18 to <25 kg/m² was considered normal; their academic grades were assessed from the average of their last three report cards.

For the qualitative data, a FGD guide was developed, which had open-ended questions with several probes. The guide explored local forms of bullying and provided a better description and clarification of some bullying-related factors identified from quantitative data findings.

Data analyses

The data collected were entered into Microsoft Excel spreadsheets, cleaned, imported, and analysed using IBM SPSS version 22 (IBM Corp., Armonk, NY, USA). Frequencies and percentages were obtained to determine the prevalence and pattern of bullying. The Chi-square test or Fisher's exact test was used where appropriate to analyse factors associated with bullying, and $P < 0.10$ was considered statistically significant. A logistic regression model was developed to identify predictors of being bullied. Independent variables with $P < 0.10$ at the bivariate level were included in the logistic regression model. Adjusted odds ratios (aORs) and their 95% confidence intervals (CIs) were used to measure the strength and direction of the effect of predictors.

Thematic analysis was used to analyse the FGDs. Recorded interviews were transcribed verbatim and analysed. For every FGD, the transcribed data were reviewed, and each discussants' comment was given a label according to the focus group number (x) and participant's tag number (y) as follows "x. y." These labeled quotes for each FGD were entered into separate excel sheets for easy coding and identification of emerging themes.

Ethical considerations

Ethical approval

This was sought for this study from the Research Ethical Committee of Aminu Kano Teaching hospital Kano.

Permission

This was also sought through the zonal offices of the Kano State Senior Secondary School's management Board and Task Force on Private and Voluntary Institutions. An informed consent form with a study information sheet was made available, and they were given 48 h to decide to participate. Consent was obtained from the principal of each school and the chairman of the parent's teachers association and also any adolescent over 18 years after explaining the study goals, voluntary nature of the study, and absence of punitive measures for nonparticipation. Assent was also obtained from the adolescents below 18 years adolescent. Adolescents who were ill and were on admission in the school sickbay on the study day were excluded.

RESULTS

Sociodemographic and family characteristics of respondents

A total of 315 boys and 320 girls were participated in the study. The boys were slightly older than the girls, with a mean age of 15.2 ± 2.10 compared to 14.8 ± 2.26 for the girls. The middle adolescent age group (14–16 years) was the most represented (48.5% for the boys and 44.6% for the girls). The adolescents studied were distributed into the public and private schools as follows: 51% against 49% for the boys and 53% to 47% for the girl's study arm. The spread into the junior and senior classes was 53% to 47% for the boys and 59% to 41% for the girls. Other characteristics are displayed in Table 1.

Prevalence and forms of bullying

Bullying was experienced by 73.0% ($n = 230$) of the adolescent boys and 61.3% ($n = 196$) of the adolescent girls within this study's recall period of 12 months. This difference was statistically significant between the study groups ($P < 0.01$). Overall, 67% of all adolescents included in the study experienced at least one form of bullying within the last 12 months.

Figure 1 shows the form of bullying reported by the respondents. Verbal was most common among the boys; 60% ($n = 138$). This was described by being insulted, called names, or belittled by their colleagues, and it was also

Table 1: Sociodemographic characteristics of adolescents, Kano, Nigeria 2021

Variables	Boys (n=315), n (%)	Girls (n=320), n (%)	Total (n=635), n (%)
Mean ages±SD	15.15±2.10	14.8±2.14	15.0±2.12
Age groups			
10–13	76 (24.1)	98 (30.6)	174 (27.4)
14–16	155 (49.2)	144 (45.0)	299 (47.1)
17–19	84 (26.7)	78 (24.4)	162 (25.5)
Ethnicity			
Hausa/Fulani	285 (90.5)	267 (83.4)	552 (86.9)
Others	30 (9.5)	53 (16.6)	83 (13.0)
School type			
Public	162 (51.4)	189 (59.1)	351 (55.1)
Private	153 (48.6)	131 (40.9)	284 (44.9)
Class			
Junior secondary	166 (52.7)	189 (59.1)	355 (55.9)
Senior secondary	149 (47.3)	131 (40.9)	280 (44.1)
Academic grades			
Good	275 (83.7)	299 (93.4)	574 (90.4)
Poor	40 (12.7)	21 (6.6)	61 (9.6)
BMI			
Normal	125 (39.7)	159 (44.7)	284 (44.7)
Abnormal	190 (60.3)	161 (55.3)	351 (55.3)
Parents marital status			
Married	295 (93.7)	275 (85.9)	570 (89.8)
Not married	20 (6.3)	45 (14.1)	65 (10.2)
Family type			
Monogamous	198 (62.9)	252 (78.8)	450 (70.9)
Polygamous	117 (37.1)	68 (21.3)	185 (29.1)
Family's social class			
High	34 (10.8)	19 (5.6)	53 (8.3)
Middle	149 (47.3)	150 (46.9)	299 (47)
Low	132 (41.9)	151 (47.2)	283 (44.6)
Living in siblings/relatives			
≤4	66 (20.3)	84 (26.3)	150 (23.6)
5 and above	251 (79.7)	236 (73.8)	487 (76.9)

SD: Standard deviation, BMI: Body mass index

reported by 43.9% ($n = 86$) of the girls. Physical bullying was recounted by 50.4% ($n = 116$) of the boys and 48.0% ($n = 94$) of the girls. Physical bullying was characterised as being slapped, punched, kicked, hit, or shoved by other students. Social bullying was much more common among the girls (53.6%, $n = 105$); several reported being excluded from groups or having their names smeared by other students. Social bullying was recounted by only 22.2% ($n = 51$), and cyberbullying was the least reported form of bullying among adolescents.

Correlates of bullying among adolescents

Bivariate analysis revealed bullying among boys was associated with the school type, playing sports, self-esteem, delinquency, parenting style, and having delinquent friends. Among the girls, a significant association was found between being bullied and self-esteem, family size, social class, parenting style, having

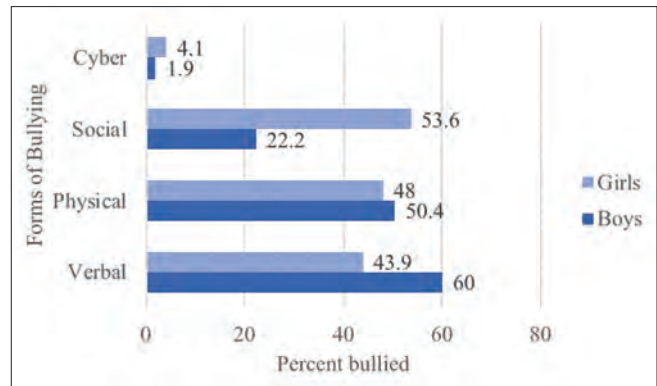


Figure 1: Forms of bullying among adolescents

delinquent friends, and having unsupportive teachers. At the multivariate level, however, only playing sports and having delinquent friends remained independent predictors of bullying among the boys, while good self-esteem, having delinquent peers, and unsupportive teachers were the only predictors of bullying among the girls [Table 2].

Adolescent boys who played sports had a 52% less likelihood of being bullied (aOR = 0.48, 95% CI = 0.26–0.90), and those who associated themselves with delinquent friends were 40% less likely (aOR = 0.60, 95% CI = 0.33–0.94) to be bullied. Girls who had good self-esteem and were related to delinquent friends had less odds of being bullied by 61% (aOR = 0.39, 95% CI = 0.23–0.64) and 42% (aOR = 0.58, 95% CI = 0.36–0.95), respectively. In addition, odds of bullying were three times higher among female adolescents who had unsupportive teachers compared to those who had accommodating teachers (aOR = 2.88, 95% CI = 1.39–5.40).

Themes from focus group discussions

Bullying is a common phenomenon

While many respondents attested to being bullied, a few reported no experience with bullying.

“In this school, almost every new student must be bullied. We don’t usually tell anyone; if you report, you get into more trouble. I have been bullied by several other students” - (12-year-old male).

“Punishment is a common way here. The seniors commonly flog us; sometimes, they beat us with their hands and pull our ears. I was slapped on several occasions, and my friend was flogged with a belt” - (13-year-old male).

“Bullying is not common here. To confront another student physically or verbally is not allowed on the school compound” - (14-year-old female).

Possible reasons for bullying

Several reasons for bullying were mentioned by both the girls and boys. Physical size, being part of a fraternity, and teachers’ involvement were recurrently mentioned.

“They bully us because we are younger.” (11-year-old male).

Table 2: Independent predictors of being bullied among adolescent boys and girls, Kano, Nigeria (n=635)

Variable	Boys				Girls			
	Crude OR (95% CI)	P	Adjusted OR (95% CI)*	P	Crude OR (95% CI)	P	Adjusted OR (95% CI)†	P
School type								
Public	Reference		Reference					
Private	0.88 (0.32–0.95)	0.03	0.90 (0.45–1.53)	0.17				
Self esteem								
Good	Reference		Reference		Reference		Reference	
Poor	2.21 (1.09–3.47)	0.04	1.59 (0.86–2.44)	0.20	0.59 (0.30–0.91)	0.02	0.39 (0.23–0.64)	<0.001
Play sports								
No	Reference		Reference					
Yes	0.73 (0.31–0.88)	<0.001	0.48 (0.26–0.90)	0.02				
Being delinquent								
Yes	Reference		Reference					
No	1.45 (1.10–2.55)	0.03	1.77 (0.78–2.03)	0.34				
Had delinquent friends								
No	Reference				Reference			
Yes	0.56 (0.39–0.91)	0.01	0.60 (0.33–0.94)	0.04	0.54 (0.23–0.89)	<0.001	0.58 (0.36–0.95)	0.03
Had unsupportive teachers								
No					Reference		Reference	
Yes					1.66 (1.17–3.15)	<0.001	2.88 (1.36–5.40)	<0.001
Family size								
≤4					Reference		Reference	
5 and above					2.90 (1.32–3.41)	0.02	3.11 (0.72–4.00)	0.47
Social class								
High					Reference		Reference	
Middle					1.47 (1.03–2.54)	0.04	1.58 (0.95–2.76)	0.25
Low					3.17 (0.84–4.20)		2.99 (0.83–3.67)	
Parenting style								
Appropriate	Reference		Reference		Reference		Reference	
Inappropriate	2.06 (1.03–2.93)	<0.001	2.36 (1.00–4.23)	0.31	1.16 (1.03–2.23)	<0.001	1.36 (1.00–2.23)	0.06

*Adjusted for school type, self-esteem, play sports, being delinquent, having delinquent friends and parenting style, †Adjusted for self-esteem, having delinquent friends, social class and family size, parenting style and having unsupportive teachers. OR: Odds ratio, CI: Confidence interval

“The bigger and older boys don’t get beaten like the smaller ones. There is this boy in my class, he is huge, and nobody dares touch him because of his size” - (14-year-old male).

“If you are a happening girl or belong to the clique of happening girls, nobody says mean things to you. But if you are quiet, the other girls pick upon you and call you names.

“Cliques are usually bad girls nobody dares them” (14-year-old female).

“The teachers in this school don’t tolerate bullying. Once anyone beats you or calls you names and you report, the discipline master acts. Mr James doesn’t joke with maltreatment of junior girls” (11-year-old female).

DISCUSSION

This study found that bullying on the school premises in a preceding 12-month recall period was reported by 67% of the total adolescents sampled; nearly three-quarters of male adolescents (73%) and approximately two-thirds of female adolescents (62%). In comparison, a study in Kano among

adolescents showed a bullying prevalence of 93% among the sampled adolescents.^[19] The high prevalence of bullying from this previous survey in Kano could be explained by the inclusion of bullying episodes that occurred outside the school premises. Similarly, studies among secondary school students in Osun and Lagos states of Nigeria observed higher prevalence rates among boys than girls.^[9,15] In Africa and across other continents, studies from Ghana, Canada, Europe, and the United States of America also revealed higher bullying episodes among boys compared to girls in these surveyed countries.^[4,20] The gateway theory explains the phenomenon of boys being more often involved in violent behaviour, thereby more likely to be victims or perpetrators of bullying than girls.^[3] In contrast, studies from Nigeria showed a higher prevalence of bullying among girls as compared to boys, which could be possibly explained by an unwillingness of the boys to admit they were bullied.^[10,11] In the FGDs, it was gathered that bullying was a common phenomenon among both groups, but more so in the boys’ schools. The girls admitted that sanctions had been placed against all forms of bullying.

Assessing the different types of bullying, a pairwise comparison of verbal bullying for this study reveals that it was more common among the boys. A similar finding was reported by a study in Ekiti state, Nigeria, where the mean score for verbal bullying was higher in males.^[21] In the USA, schoolboys were found to have a 2.65 increased likelihood of being involved in verbal bullying (odds ratio = 2.65, 95% CI = 2.07–3.40).^[20] The study's finding shows dissimilarities with many local and international studies. Most studies find higher estimates for verbal bullying among girls, which they attributed to being a subtle form of bullying that girls prefer. Compared to the girls, this finding of a higher value among boys may have been due to disciplinary measures that schools have taken. These FGDs reaffirmed that some schools adopted punitive measures against any form of physical violence. Physical confrontation on the school premises was not allowed; bullies might have to resort to the verbal type.

A narrow gap with the boys in the lead was reported among the adolescents that experienced physical bullying. Similar studies from Nigeria revealed that male students reported a significantly higher level of physical victimization than females.^[10,21] In Kenya, a study reported that boys were more predisposed to physical bullying, whereas girls were more predisposed to indirect bullying ($P < 0.01$).^[21] In the USA, boys were found to have almost a three times increased likelihood of being involved in physical and other forms of bullying.^[4] Gender stereotypes could explain this difference; while males are expected to be strong and assertive, females are raised to be subtle and understanding.

Social bullying was the most popular form of bullying among adolescent girls. Similarly, a study in Delta state, Nigeria, showed an almost two-fold higher difference in the girls when acts considered as social bullying were found (rumor spreading and slandering) were estimated.^[22] Similarly, in Ondo State, Nigeria,^[22] a study cited that girls use social and verbal threats, such as spreading rumors about one another and excluding one another from peers, ignoring, excluding, and backbiting as the common form of bullying between them. Girls have been known to value the communication of closeness and trust.^[23] For this reason, girls often bully by manipulating social relationships because they believe other girls will be more distressed by such behaviour. In addition, the fact that social bullying is a hidden behaviour makes it possible to be still carried out despite a ban on bullying. The act could go unnoticed by adults and other adolescents who are not directly involved. The FGDs also revealed that among the boys, when social bullying occurs, the victims and perpetrators were likely classmates.

Furthermore, this study found factors significantly associated with bullying to be similar to studies in Sokoto^[24] that found peer influence to be associated with bullying, studies in Lagos, Ghana, and Sweden found an association between being bullied and parenting styles.^[25-27] In addition to these, this study found individual factors such as self-esteem, playing sports and being a delinquent to be associated with being bullied.

Family factors revealed were their family sizes, social class, and societal factors like having delinquent friends and having unsupportive teachers.

Multivariate analysis among the boys revealed that playing sports and having delinquent friends were protective against bullying. Whereas associating with delinquent peers and having good self-esteem were factors found protective against bullying for girls. Considering the “peer-led approach to bullying prevention,” seeking the support of peers is mentioned as a strategy to control bullying. Findings from the FGDs gave possible explanations for this; discussants disclosed that those who were always in a large group or “gang/cliique,” as they called it, had immunity against being bullied. Furthermore, measures that build self-esteem are used as a core strategy in bullying prevention.^[28] The discussants also attributed the risk of being bullied to being shy, clumsy, and unpopular, but those who participated in sports or other activities and had good self-esteem were less bullied. They stated that bullies usually picked on weak, frail individuals, or people that were not confident about themselves or hardly socialized with others.

Furthermore, in this study, girls with unsupportive teachers had an increased risk of being bullied. Looking at the whole-school approach to controlling bullying, this approach has been found to be one of the most effective strategies used to prevent bullying.^[28] It entails the involvement of teachers and other school officials to control this behaviour.

As with all studies, interpretations of findings from this study must be viewed within its strength and limitations. The strengths of this study include its mixed nature consisting of both quantitative and qualitative data to give a richer and more comprehensive understanding. Limitations include the inability to account for temporal relationships due to the study design and the need to extend this study to cover the other 36 rural LGAs within the state as those areas have several boarding schools for both genders.

This study found a high prevalence of bullying among both adolescent girls and boys. Bullying in all its forms was less common among boys who played sports and had delinquent friends and among girls who had good self-esteem and had delinquent friends. Having unsupportive teachers predisposed in-school adolescents to more bullying.

To prevent bullying, we recommend the support of the school authority as well as meaningful involvement of the students, their parents, teachers, and community members to hasten efforts at addressing this menace.

Acknowledgment

The authors would like to thank the Ministry of Education, Kano, for permitting the study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Olweus D, Limber S. Olweus bullying prevention program. In: Jimerson SR, Swearer SM, Espelage DL, editors. *International Handbook of School Bullying: An International Perspective*. New York: Routledge; 2009. p. 377-401. Available from: <https://www.routledge.com/Handbook-of-Bullying-in-Schools-An-International-Perspective/Jimerson-Swearer-Espelage/p/book/9780805863932>. [Last accessed 2021 Jul 15].
2. Robinson JV, James AL. Some observations on the effects produced in white mice following the injection of certain suspensions of corroding bacilli. *Br J Exp Pathol* 1975;56:14-6.
3. Afroz J, Shafqat H. Bullying in elementary schools: Its causes and effects on students. *J Educ Pract* 2015;6:43-57.
4. Craig W, Harel-Fisch Y, Fogel-Grinvald H, Dostaler S, Simons-Morton B, Molcho M, *et al.* Cross National Profile of bullying and victimisation among adolescents in 40 countries. *Int J Public Health* 2009;54 Suppl 2:216-24.
5. Lai SL, Ye R, Chang KP. Bullying in middle schools: An Asian-Pacific Regional study. *Asia Pac Educ Rev* 2008;9:503-15.
6. Kahunga MJ. Factors Contributing to Bullying among Students in Public Secondary Schools in Kiambu District Kenya; 2013. Available from: <http://www.bing.com/search?q=rom%3A+http%3A%2F%2Fir%2E%80%91library.ku.ac.ke%2Fhandle%2F123456789%2F12199&form=IE11TR&src=IE11TR&pc=HPNTDFJS>. [Last accessed on 2021 Aug 08].
7. DH Tustin, GN Zulu. Nature extent and Impact Of Bullying on secondary school learners in Guateng. *BMR Syndicate Research Report* 2015;460.
8. Alabi YL, Lami MM. Efficacy of client-centred and rational-emotive behaviour therapies in reducing bullying behaviour among in-school adolescents in Ilorin, Nigeria. *Int J Instr* 2015;8:61-74.
9. Adefunke ES. Types and prevalence of peer victimization among secondary school students in Osun State, Nigeria: Implications for counselling. *Int J Cross Discip Subj Educ* 2010;1:53-60.
10. Egbochuku EO. Bullying in Nigerian schools: Prevalence study and implications for counselling. *Soc Sci* 2007;14:65-71.
11. Omoniyi MB. Bullying in schools: Psychological implications and counselling interventions. *J Educ Pract* 2013;4:70-8.
12. Gruber J, Fineran S. Comparing the impact of bullying and sexual harassment victimization on the mental and physical health of adolescents. *Sex Roles* 2008;59:1-13.
13. Brown DW. Economic value of disability-adjusted life years lost to violence: Estimates for WHO Member States. *Rev Panam Salud Publica* 2008;24:203-9.
14. Taylor DW. The Calculation of sample size and power in biostatistics. *Community Med Prim Health Care* 2012;2:6-16.
15. Adeosun I, Adegbohun A, Jejeloye A, Oyekunle O, Ogunlowo O, Pedro A. Bullying victimization among secondary school students in Lagos, Nigeria: Emotional, behavioural and mental health correlates. *Br J Educ Soc Behav Sci* 2015;11:1-8.
16. WHO. The EPI Coverage Survey. Training Manual for Mid-Level Managers. Geneva: WHO; 2008. p. 6-55.
17. Hamburger ME, Basile K, Vivolo A. Measuring Bullying and Bystander Experiences: Centers for Disease Control and Prevention; 2011. Available from: <https://njbullying.org/documents/CDCBullyHIBAssessment.pdf>. [Last accessed on 2021 Jul 08].
18. Garba RM. Comparative Study of the Levels of Satisfaction between NHIS Insured and Uninsured Patients AKTH Kano (Unpublished) Thesis, Fellowship West Africa College of Physicians; 2015.
19. ESSPIN. Education, Conflict and Violence Research: ESSPIN Report 428; 2014.
20. Dunne M, Bosumtwi SC, Sabites R, Owusu A. Bullying and School Attendance: A Case Study of Senior High School Students in Ghana. Create Pathways to Access: Research Monograph No. 41; 2010.
21. Olubunmi MA. Dimensions of bullying among secondary school students in Ekiti state, Nigeria. *Psychol Behav Sci* 2015;4:190-3.
22. Owuamanam DO, Makinwa VI. Prevalence of bullying among secondary school students in Ondo State, Nigeria. *Eur Sci J* 2015;11:326-33.
23. Arc Ansley School. Anti Bullying Policy Publication Date: August 2015 Review Date: August 2016; 2016.
24. Tambawal MU. Bullying and its effects on the academic performance of secondary school students in Nigeria: Implications for counselling. *UDUS-OER* 2017;3:1-8. Available from: https://www.academia.edu/es/3819788/BULLYING_AND_ITS_EFFECTS_ON_THE_ACADEMIC_PERFORMANCE_OF_SECONDARY_SCHOOL_STUDENTS_IN_NIGERIA. [Last accessed on 2021 Jul 15].
25. Ani CC, Grantham-McGregor S. Family and personal characteristics of aggressive Nigerian boys: Differences from and similarities with Western findings. *J Adolesc Health* 1998;23:311-7.
26. Acquah E, Wilson M, Doku D. Patterns and correlates for bullying among young adolescents in Ghana. *Soc Sci* 2014;3:827-40.
27. Beckman L. Traditional Bullying and Cyberbullying among Swedish Adolescents: Gender Differences and Associations with Mental Health. (Doctoral Dissertation, Karlstads, Universitet); 2013.
28. Lanigan AR. Systematic Review of Bullying Prevention Programs in Schools. *Soc Work Master's Clin Res Pap* 474; 2015. p. 50. Available from: <http://www.bing.com/search?q=Lanigan+AR.+Systematic+Review+of+Bullying+Prevention+Programs+in&qs=n&form=QBRE&sp=-1&pq=&sc=0-0&sk=&cvid=FD9BEF7528754EBCA6B1BDD799DA13D7>. [Last accessed on 2021 Aug 16].