

Victimization by physical and sexual violence, and the perpetration and threats of rape among high school adolescents in Nigeria and South Africa

Shahana Rasool*, and Sunday B. Fakunmoju

Abstract: Comparative studies of adolescent victimization and perpetration of physical and sexual violence and rape are limited but crucial for understanding global patterns and effective prevention strategies. This study examined the victimization by physical and sexual violence and the perpetration and threats of rape among a convenience sample of 1,969 adolescents from 43 high schools in Nigeria and South Africa. Despite some similarities and differences in prevalence of the examined victimization and perpetration, the findings reveal that adolescent boys were more likely than girls to report victimization, suggesting potential fear of retaliation and stigmatization affecting female disclosures. Rape victimization and threats were linked to the perpetration and threats of rape. Notably, adolescents in South Africa were more likely to report threatening and perpetrating rape compared to their Nigerian counterparts. This comparative approach provides valuable insights into the socio-cultural contexts that influence violence and cross-culturally sensitive strategies to protect adolescents from violence.

Keywords: perpetration; physical violence; rape; sexual violence; victimization.

Address for correspondence: shahanar@uj.ac.za

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Shahana Rasool is a social worker who obtained her undergraduate degree at WITS and earned her Master's and Doctorate from the University of Oxford (UK), Department of Social Policy. She is a Professor and Head of the Department at the University of Johannesburg (UJ), where she lectures on research, social issues, theory, and community development. Before joining UJ, she lectured at the University of the Witwatersrand (WITS). Shahana has been an activist, researcher, trainer, and academic in the field of gender for many years, with a particular focus on gender-based violence. She has a keen interest in social transformation, which began during her time as an anti-Apartheid activist in South Africa and continued through her work in the NGO sector in both South Africa and Australia. Her research in South Africa has explored the socio-cultural influences on help-seeking behaviors and the responses of formal and informal resources to abused women. Her current research focuses on the relationship between adolescent gender attitudes and exposure to gender-based violence, as well as decoloniality in social work education.

Sunday Fakuomoju is a professor of social work at Westfield State University, Massachusetts, where he teaches research and practice courses. His research and practice focus on parental and interpersonal violence, mental health, child protection, and child welfare. He is a licensed independent clinical social worker in Maryland and Washington, D.C., USA, and a Senior Research Associate at the University of Johannesburg, Faculty of Humanities, South Africa..

Introduction

Adolescents are vulnerable to physical and sexual violence and rape, and prevalence reports from various countries indicate that both victimization and perpetration are common among them (Artz et al., 2016; Folayan et al., 2014; Jewkes et al., 2006; Kaminer et al., 2013; Ogunfowokan et al., 2016; Positive Action for Treatment Access, 2013; Treves-Kagan et al., 2021). Physical violence involves the intentional use of physical force or acts (such as pushing, shoving, punching, throwing, grabbing, choking, or using a weapon) that result in physical harm and injury to others (Basile et al., 2014; Breiding et al., 2015; World Health Organization, 2021). Sexual violence entails the intentional use of physical force or the threat of force to carry out a sexual act or engage in sexual intercourse with someone without consent or with someone unable to give or refuse consent (Basile et al., 2014; Breiding et al., 2015; World Health Organization, 2021). Rape, a specific form of sexual violence, involves the forceful completion or attempted sexual penetration of an individual (victim) without consent, which may include the use of an object (Basile et al., 2014; Breiding et al., 2015; World Health Organization, 2021). Adolescents can be both victims and perpetrators of physical and sexual violence and rape. This study aims to investigate the victimization and perpetration of these forms of violence among adolescents in Nigeria and South Africa.

Prevalence of physical and sexual violence and rape

Victimization and perpetration of physical and sexual violence are prevalent among adolescents in Nigeria and South Africa, although prevalence figures vary across studies. In South Africa, a study by Selin et al. (2019) reported that the prevalence of physical and sexual violence (including rape) by a partner among adolescent girls and young women was 10.8% for those aged 13 to 14 and 17.7% for those aged 15 to 16. This prevalence rate compares to another study of sexual aggression among adolescents (including forced and threatened sexual intercourse) that found 6% of them to have reported victimization for vaginal sex and 15% for nonvaginal sex (e.g., oral sex) (Kuo et al., 2019). A recent study reported high lifetime (37.9%) and past-year (25.3%) prevalence rates of sexual violence (Ajayi et al., 2021), rates

that are consistent with previous reports of sexual violence and rape (Jewkes & Abrahams, 2002; Orth, 2020).

In Nigeria, the prevalence rates vary across studies as well. In a recent study, as high as 40.7% reported being victims of physical attacks and 42.2% reported involvement in physical fights (Ogunyemi et al., 2022). A recent study found that 29.2% of adolescents reported experiencing sexual violence, and 14.6% reported that a family member had raped them (Maduakolam et al., 2023). Both studies are comparable to another study that identified a prevalent rate of violence 44.7% for physical violence (small cuts, physical pain, hit on the head, and bullied) and 10.2% for sexual violence (Ughasoro et al., 2022). In a study of school-age adolescents, 13.3% reported being victims of rape and 5.6% reported perpetrating rape (Ezegwui et al., 2023). Most studies on physical violence in Nigeria and South Africa focus on physical abuse and peer victimization (Meinck et al., 2016; Ogunyemi et al., 2022; Zheng et al., 2019).

Gender differences in victimization and perpetration of physical and sexual violence and rape

Female and male adolescents show differences in their vulnerability to physical and sexual violence and rape. Many female adolescents are more likely to experience sexual violence and rape compared to their male counterparts, while male adolescents are more frequently subjected to physical violence (Artz et al., 2016; Carbone-Lopez et al., 2010; Kuo et al., 2019; Selin et al., 2019; Ughasoro et al., 2022). In South Africa, gender has been identified as a risk factor for both victimization and perpetration: girls are more likely to be victims and non-perpetrators, whereas boys are more likely to be perpetrators and victim-perpetrators (Sui et al., 2020). As indicated in recent research, almost 8% (7.72%) of females reported being victimized by forced sex or rape (Kuo et al., 2022). The victimization rate is approximately 30% (29.8%), with 9% of cases involving perpetrators and 24.6% involving victim-perpetrators (Sui et al., 2020). Overall, the perpetration of sexual violence and rape is more prevalent among males (34.5%) compared to females (20.5%), based on prevalence figures for sexual violence (6% for vaginal sex and 15% for non-vaginal sex) (Kuo et al., 2019).

In Nigeria, gender differences in victimization and perpetration of physical and sexual violence and rape are similarly documented. A recent study found that 78.7% of adolescents had engaged in at least one type of bullying, with being male being predictive of bullying perpetration (Raji et al., 2021). Another recent study revealed that 6% of adolescent males admitted to raping an adolescent girl, with 55% of these boys reporting that they had raped their sexual partners and another 55% involved in gang rape (Ogunfowokan et al., 2016). Additionally, a separate study reported a 26% prevalence of sexual violence (including rape—completed unwanted sexual intercourse through threats and physical force) victimization among girls and young women (Nguyen et al., 2018).

Despite the reported high victimization rates of sexual violence by adolescent females, reports indicate that adolescent males are more likely to report their victimization experience than adolescent females (Burton et al., 2015; Young et al., 2021). Victimization and perpetration rates also vary depending on the nature of the violence and whether it occurs between peers or is inflicted by adults (Carbone-Lopez et al., 2010; Kaminer et al., 2013; Ogunfowokan et al., 2016). To date, victimization and perpetration of physical and sexual violence and rape primarily focus on prevalence, perceptions, childhood exposure, effects on violent behaviors in adulthood, and mental health consequences (Kieselbach et al., 2021; Treves-Kagan et al., 2021). Comparative knowledge of victimization and perpetration, and associated factors across countries, remains limited, despite its importance for research, practice, and policy.

Impact of demographics, victimization, and coercion on rape perpetration and threats

Although many violent behaviors, attitudes, and mental health factors have been associated with the perpetration and threats of rape, a history of victimization and perpetration remains a major predictor of sexual violence and rape perpetration. As indicated in a recent study by Meadows et al. (2022), the victimization of sexual violence is a risk factor for the perpetration of sexual violence among adolescents. Perpetrators use various tactics, including physical force, coercion, and threats, to commit sexual violence and rape (Bouffard & Goodson, 2017; Greathouse et al., 2015). These risk factors are particularly pronounced in the context of intimate relationships. For example, in their systematic review of the association between partner violence measures and male perpetration of partner violence, McCarthy et al. (2018) identified controlling behaviors, physical force, pressure, and violence-supportive attitudes and behaviors as being positively associated with the perpetration of sexual violence and rape. Similarly, in their examination of “forced sexual contact, coercive sex, attempted rape, and completed rape,” Ybarra and Mitchell (2013) found that sexual violence perpetration emerges earlier for males than females, until ages 18 and 19, when perpetration rates become relatively equal. Females are more likely to be victims of sexual violence and rape than males (Greathouse et al., 2015).

Examination of physical and sexual violence and rape in Nigeria and South Africa

The present study aims to address the existing gap by examining whether victimization by physical and sexual violence and the perpetration of rape differ

by gender and country (Nigeria and South Africa). Additionally, the study will explore the associations between demographic characteristics, exposure to sexual violence and rape, threats of sexual violence and rape, and the perpetration of rape, including the act of threatening someone with rape. The independent variables are demographic characteristics, victimization, and threats of sexual violence and rape, while the dependent variables are the perpetration of rape and threatening someone with rape.

Examining such prevalence and related associations is critical not only because of their impact on current adolescent behavior, but also because of their implications for future victimization, perpetration of abusive behaviors, and mental health. Investigating both physical and sexual violence and rape is critical because these forms of abuse often co-occur and may have common underlying causes and consequences. This integrated approach allows researchers to gain a more complete understanding of the range of violent experiences that adolescents face. It also provides insight into how different types of violence intersect and how they potentially exacerbate the impacts on victims. By comprehensively examining the different types of violence that young people experience, it may be possible to identify potential patterns or links between physical and sexual violence and reveal whether experiencing one form of violence increases the risk of experiencing or perpetrating another form of violence. Ultimately, investigating both physical and sexual violence can generate findings that will inform comprehensive and effective prevention strategies and broader policy recommendations.

Comparing Nigeria and South Africa is significant for various reasons, given their similarities and differences. Both countries are located in Africa but in different regions (West Africa versus Southern Africa). They both benefit from diverse ethnicities, languages, and cultures, despite the marginalization and oppression resulting from the history of apartheid in South Africa and colonialism in Nigeria (Fakunmoju et al., 2021). In terms of development, the countries differ in categorization: South Africa is classified as a middle-income country, whereas Nigeria is classified as a low-income country (Human Rights Watch, 2018; United Nations Development Programs, 2020). Nevertheless, similarities in family values and support, religious practices and beliefs, and child-rearing practices (e.g., respect and deference to elders) persist between the two countries, which have implications for the endorsement of pro-violent behaviors among adolescents.

Several factors highlight the need for a comparative study, particularly its contribution to knowledge. Such a study on physical and sexual violence and rape can illuminate how socio-economic factors (e.g., poverty, inequality, unemployment) and cultural norms (e.g., gender roles, power imbalances) influence similarities and differences between countries. This understanding can inform the development or adaptation of cross-culturally valid prevention and intervention strategies, measures, and policies (Fakunmoju et al., 2021; Fakunmoju & Rasool, 2018). Additionally, the insights gained can support awareness campaigns and educational programs aimed

at preventing violence and promoting healthy behaviors. Cross-cultural knowledge may also foster collaboration and knowledge-sharing between countries to address shared challenges. Without this knowledge, key cultural, contextual, and societal factors that shape patterns of violence in different contexts may be overlooked, hindering the identification of best practices, context-specific solutions, and effective policy transferability. Since adolescents worldwide face similar challenges (WHO, 2018, 2021; World Population Review, 2020), comparative research on physical and sexual violence and rape can inform global efforts to address these behaviors and promote adolescent well-being.

Social learning and social ecological theory in relation to victimization and perpetration of physical and sexual violence and rape

Social learning and ecological systems theory inform the examination of victimization and perpetration of physical and sexual violence and rape. Social learning theory (Bandura, 1978, 1986) describes the impact of exposure to behaviors on the perpetration of those behaviors. By interacting with the environment, people observe behaviors, learn how to carry them out, and assimilate the underlying beliefs associated with them (Bandura, 1978, 1986). As adults model behaviors for children at home and in the community, children learn to imitate and become accustomed to these behaviors while internalizing the values and beliefs that support them. Several studies have validated the relevance of social learning theory and determined the overlap between victimization and perpetration, particularly regarding perpetration as a risk factor for victimization (Juan et al., 2018; Leiding et al., 2022; Logan-Greene et al., 2010). Previous research also indicates that exposure to violence in urban communities may be associated with the endorsement of violence-supportive attitudes and beliefs and the perpetration of violence in interpersonal relationships to resolve conflicts (Huesmann & Guerra, 1997). However, differences in socialization experiences and exposure to violence among adolescents may have differential effects on victimization and the perpetration of pro-violent behaviors (Fakunmoju et al., 2021; Fakunmoju & Rasool, 2018).

In addition to social learning theory, ecological systems theory helps elucidate the interactive effects of the complex interplay of multiple environmental systems on individual behavior and development (Bronfenbrenner, 1979, 1986). These systems range from the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1979, 1986). The microsystem includes the direct environments where the most interactions occur (e.g., family, school, peers, workplace), which have the most immediate impact on a person's development (Bronfenbrenner, 1979, 1986). The mesosystem represents the interconnections between different microsystems, such as the interaction between a child's home and

school environment, and how these interactions influence a child's development (Bronfenbrenner, 1979, 1986). The exosystem encompasses the broader social systems that an individual does not interact with directly but that still affect their development (Bronfenbrenner, 1979, 1986). The macrosystem includes the broader cultural context that influences the lives and behaviors of individuals, including societal norms, values, laws, and customs that shape an individual's development and beliefs (Bronfenbrenner, 1979, 1986). The chronosystem involves the life events, shifts, changes, and transitions experienced by individuals throughout their lives, all of which can profoundly affect their development (Bronfenbrenner, 1979, 1986). Ecological systems theory helps us understand how different levels of an individual's environment interact and influence their behavior and development. By emphasizing the multiple levels of social systems, cultural context, and the interactions between different environmental systems, we can understand the impact of individual factors and social influences on adolescents' exposure to physical and sexual violence and rape in different countries.

Materials and methods

Design and sample

A cross-sectional self-administered survey was developed and administered in South Africa and Nigeria to adolescents in High School. In both countries, research assistants were recruited to administer the survey to students. In South Africa, the survey was administered to entry-level high school students in 30 high schools in Johannesburg. In Nigeria, the survey was administered to students in 13 public high schools in six school districts in Lagos State. The sample for analysis comprised 1969 adolescents, with 65.1% ($n = 1282$) from South Africa and 34.9% ($n = 687$) from Nigeria. There were more female participants ($n = 1145$, 58.2%) than male participants ($n = 824$, 41.8%) in the study. The average age of participants was 14.41 years ($SD = 1.31$).

In South Africa, researchers obtained consent from both parents and learners in Johannesburg schools for participation in the study. Fourth-year social work students trained for the study administered the survey to entry-level high school adolescents in 30 high schools in Johannesburg. The first stage involved the selection of schools by the trained social work students, based on existing relationships their internship organizations had with the selected schools. In the second stage, the social work students handed out consent forms and letters of invitation to the students in the classroom two to three weeks before data collection commenced, explaining the ethical requirements of the study. The parents/caregivers/guardians completed the consent forms, which included a 24-hour call center number for Childline and

contact details of related organizations for assistance with any distress that might result from participating in the study.

In Nigeria, researchers obtained a list of public high schools in the six districts of Lagos State. A total of 13 public high schools from the six districts participated in the study. Two schools (one in an urban area and one in a rural area) were selected from five of the districts, and three schools (two in urban areas and one in a rural area) were selected from one of the districts. Selection was based on the large population size and accessibility of the schools to increase the sample size of participants. Research assistants explained the study to the students and distributed the survey along with an envelope for returning the completed survey in the classroom to those interested in participating. Students were instructed to skip any questions they did not feel comfortable answering, discontinue participation if the questions evoked negative feelings, contact the nearest counseling center for services if they experienced any distress from participating in the study, or contact the principal or the investigator for additional referrals. Additional information about the studies in both countries may be obtained from Fakunmoju and Rasool (2018) and Rasool (2017). The Institutional Review Board of Westfield State University, Massachusetts, USA approved the study for Nigeria and the humanities ethics committee of University of Johannesburg, South Africa approved the study for South Africa.

Measures

The paper-based questionnaire and instruments of the larger study were a composite of questions drawn from various sources, including adaptations of questions from the UNISA School Questionnaire (UNISA Health Psychology Unit, n.d.), the Gender Equitable Men (GEM) scale used in Brazil (Pulerwitz & Barker, 2008), and DevTech Systems & the Center for Educational Research and Training (2006). Victimization and perpetration of violence were operationalized by asking adolescents a series of 13 descriptive questions that captured victimization of physical violence, victimization of sexual violence, and perpetration of rape.

Victimization of physical violence: This comprises five questions that captured the experience of physical violence (e.g., throwing things, pushing and shoving, choking, use of a knife or gun, and beating up perpetrated by someone against respondents).

Victimization of sexual violence: This comprises six questions that captured the experience and threat of rape perpetrated by someone against respondents (e.g., being asked to engage in sex without a condom, being forced to partake in sexual activities, being pressured to have sex, being threatened with rape, and being raped).

Perpetration of rape: This comprises two questions that captured the perpetration of rape by respondents (e.g., threatening someone with rape, raping someone).

Adolescents were asked to respond to the 13 questions with binary response choices of “Yes” and “No”. The 13 questions are reported in Table 1.

Table 1
Associations between Victimization and Perpetration of Physical and Sexual Violence and Gender and Country

Victimization and Perpetration	South Africa <i>n</i> (%)	Nigeria <i>n</i> (%)	Female <i>n</i> (%)	Male <i>n</i> (%)	Number of victimization/ perpetration (N)	Level of significa nce (<i>p</i> value)	Effect size (ϕ)
Victimization of physical violence							
Someone of the opposite sex has thrown things at me during a fight							
No	1109 (86.5%)	552 (80.3%)	1002 (87.5%)	659 (80%)	1661		
Yes	173 (13.5%)	135 (19.7%)	143 (12.5%)	165 (20%)	308	<.0005	.10
Someone of the opposite sex has pushed and shoved me during a fight							
No	1066 (83.2%)	580 (84.4%)	987 (86.2%)	659 (80%)	1646		
Yes	216 (16.8%) [#]	107 (15.6%) [#]	158 (13.8%)	165 (20%)	323	<.0005	.08
Someone of the opposite sex has choked me							
No	1088 (84.9%)	626 (91.1%)	1024 (89.4%)	690 (83.7%)	1714		
Yes	194 (15.1%)	61 (8.9%)	121 (10.6%)	134 (16.3%)	255	<.0005	.09
Someone of the opposite sex has used a knife or gun on me during a fight							
No	1177 (91.8%)	650 (94.6%)	1078 (94%)	751 (91.1%)	1827		
Yes	105 (8.2%)	37 (5.4%)	69 (6%)	73 (8.9%)	142	.01	.05
Someone of the opposite sex has beaten me up							
No	1065 (83.1%)	587 (85.4%)	973 (85%)	679 (82.4%)	1652		
Yes	217 (16.9%)	100 (14.6%)	172 (15%)	145 (17.6%)	317	n.s.	
Victimization of sexual violence							
Someone from the opposite sex has insisted I have sex with them without a condom							
No	1177 (91.8%)	614 (89.4%)	1070 (93.4%)	721 (87.5%)	1791		
Yes	105 (8.2%) [*]	73 (10.6%) [*]	75 (6.6%) [*]	103 (12.5%)	178	<.0005	.10

	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	victimization/ Perpetration (N)	significa nce (<i>p</i> value)	size (ϕ)
Victimization of sexual violence continued							
Someone of the opposite sex has used force (like hitting, holding down, or using a weapon) to make me partake in sexual activities with which I was not comfortable							
No	1118 (87.2%)	609 (88.6%)	1030 (90%)	697 (84.6%)	1727	<.0005	.08
Yes	164 (12.8%) [#]	78 (11.4%) [#]	115 (10%)	127 (15.4%)	242		
Someone of the opposite sex has insisted on sex when I did not want to (but did not use physical force)							
No	1076 (83.9%)	580 (84.4%)	977 (85.3%)	679 (82.4%)	1656	.046	.04
Yes	206 (16.1%) [#]	107 (15.6%) [#]	168 (14.7%)	145 (17.6)	313		
Someone of the opposite sex has used threats to make me take part in sexual activities with which I was not comfortable							
No	1131 (88.2%)	632 (92%)	1053 (92%)	710 (86.2%)	1763	<.0005	.09
Yes	151 (11.8%) ^b	55 (8%) ^b	92 (8%)	114 (13.8%)	206		
Threatened with rape							
No	1040 (81.1%)	659 (95.9%)	978 (85.4%)	721 (87.5%)	1699	<.0005	.20
Yes	242 (18.9%)	28 (4.1%)	167 (14.6%) [#]	103 (12.5%) [#]	270		
Have actually been raped by someone?							
No	1114 (86.9%)	676 (98.4%)	1041 (90.9%)	749 (90.9%)	1790	<.0005	.19
Yes	168 (13.1%)	11 (1.6%)	104 (9.1%) [#]	75 (9.1%) [#]	179		
Perpetration of rape							
Threatened someone with rape							
No	1118 (87.2%)	674 (98.1%)	1049 (91.6%)	743 (90.2%)	1792	<.0005	.18
Yes	164 (12.8%)	13 (1.9%)	96 (8.4%) [#]	81 (9.8%) [#]	177		
Have actually raped someone							
No	1142 (89.1%)	674 (98.1%)	1064 (92.9%)	752 (91.3%)	1816	<.0005	.16
Yes	140 (10.9%)	13 (1.9%)	81 (7.1%) [#]	72 (8.7%) [#]	153		

Note: Analysis based on complete data. The table describes the prevalence and comparisons of victimization and perpetration across gender and country. Some associations, for example, were significant for gender but not for country, and vice versa. Nonsignificant associations for gender and country are denoted with a “#” in the table. [#] = Non-significant, ^a = Significant at $p = .044$, ^b = Significant at $p = .005$

Data Analysis

From a total of 3,188 adolescents (Nigeria = 986, 31%; South Africa = 2,202, 69%), the analysis focused on students between the ages of 12 and 18 years old, and those younger than 12 years and older than 18 years were removed from the analysis. Listwise deletion was applied to responses that did not include the independent and dependent variables, resulting in a total of 1969 cases for analysis. Descriptive analysis was used to examine the characteristics of respondents in the study.

Chi-square analysis was used to determine whether adolescents' victimization and perpetration of physical and sexual violence and rape differed by gender and country (between Nigeria and South Africa). Logistic regression analysis (simultaneous entry) was used to examine the association between demographic characteristics, exposure to sexual violence and rape, threat of sexual violence and rape, and perpetration of rape. Perpetration of rape was the dependent variable. The same logistic regression analysis was used to examine the associations between demographic characteristics, country, exposure to and threat of rape, perpetration of rape, and threatening someone with rape. Threatening someone with rape was the dependent variable. When examining the link between two categorical variables (yes/no, male/female, Nigeria/South Africa), chi-square analysis is applicable. Binary outcome variables are examined using logistic regression analysis (yes/no). While logistic regression offers more precise information about the type and degree of these correlations, chi-square just provides an overall picture of association.

Results

An analysis of the prevalence of victimization by physical and sexual violence, as well as the perpetration of rape, reveals some comparable rates despite notable differences. Specifically, almost equal percentages of adolescents in both countries reported that someone of the opposite sex had pushed or shoved them during a fight (16.8% in South Africa; 15.6% in Nigeria); that someone of the opposite sex had used force (such as hitting, holding down, or using a weapon) to compel them to engage in sexual activities they were uncomfortable with (12.8% in South Africa; 11.4% in Nigeria); and that someone of the opposite sex had insisted on sex when they did not want to, even though physical force was not used (16.6% in South Africa; 15.6% in Nigeria).

However, major differences in prevalence were found in other areas, such as being hit by objects thrown by someone of the opposite sex during a fight (13.5% in South Africa; 19.7% in Nigeria), being choked by someone of the opposite sex (15.1% in South Africa; 8.9% in Nigeria), being threatened to partake in uncomfortable sexual activities (11.8% in South Africa; 8% in Nigeria), being threatened with rape (18.9%

in South Africa; 4.1% in Nigeria), being raped (13.1% in South Africa; 1.6% in Nigeria), threatening someone with rape (12.8% in South Africa; 1.9% in Nigeria), and actually raping someone (10.9% in South Africa; 1.9% in Nigeria).

Similarly, comparable percentages of boys and girls reported that someone had threatened them with rape (14.6% of girls; 12.5% of boys); that they had been raped by someone (9.1% of girls; 9.1% of boys); that they had threatened someone with rape (8.4% of girls; 9.8% of boys); and that they had actually raped someone (7.1% of girls; 8.7% of boys). However, major differences in prevalence were noted in being hit by objects thrown by someone of the opposite sex during a fight (12.5% of girls; 20% of boys), being pushed and shoved by someone of the opposite sex during a fight (13.8% of girls; 20% of boys), being choked by someone of the opposite sex (10.6% of girls; 16.3% of boys), being asked for sex by the opposite sex without a condom (6.6% of girls; 12.5% of boys), being forced to partake in uncomfortable sexual activities (10% of girls; 15.4% of boys), and being threatened to partake in uncomfortable sexual activities (8% of girls; 13.8% of boys).

Similarly, analyses of whether adolescents' victimization of physical and sexual violence and perpetration of rape are more likely to differ by gender and country (between South Africa and Nigeria) revealed some significant findings (Table 1).

Victimization of physical violence:

The data with regard to victimization of physical violence by country showed that adolescents in Nigeria were more likely to report that someone of the opposite sex has thrown things at them than adolescents in South Africa, whereas adolescents in South Africa were more likely to report that someone of the opposite sex has choked them and used a knife or gun on them than adolescents in Nigeria. Regarding victimization of physical violence for gender, adolescent boys were more likely to report that someone of the opposite sex has thrown things at them, pushed and shoved them, choked them, and used a knife or gun on them than adolescent girls.

Victimization of sexual violence:

When looking at the country, adolescents in Nigeria were more likely to report that someone of the opposite sex has insisted on unprotected sex with them than adolescents in South Africa, whereas adolescents in South Africa were more likely to report that someone of the opposite sex had used threats to make them participate in sexual activities with which they were uncomfortable, threatened them with rape, and actually raped them than adolescents in Nigeria. Differences in the victimization of sexual violence by gender also suggest that adolescent males were more likely to report than adolescent females that someone of the opposite sex has insisted on unprotected sex with them,

used force to make them partake in sexual activities, insisted on sex (without using physical force) when they did not want to, and used threats to make them participate in sexual activities with which they were not comfortable.

Perpetration of rape

Differences in the perpetration of rape were noted between Nigeria and South Africa. Specifically, adolescents in South Africa were more likely to report threatening someone with rape and to have actually raped someone of the opposite sex than adolescents in Nigeria.

Model predictive of the perpetration of rape

Results of logistic regression indicate that the full model comprising the predictors compared with the constant-only model is significant (omnibus test of model coefficients), suggesting that the predictors' ability to distinguish between those who reported and those who did not report perpetration of rape ($\chi^2 = 713.17$, $p < .0005$). The inferential goodness-of-fit statistics, the Hosmer and Lomeshow tests, are nonsignificant, suggesting a model fit ($p > .05$). The variance in perpetration of rape accounted for is 75% (McFadden Pseudo R2 .750): (Cox & Snell R2 = .330) and 79.8% (Nagelkerke R2 = .798).

Results indicate some associations between demographic characteristics, exposure to sexual violence and rape, threat of sexual violence and rape, and perpetration of rape (Table 2). Specifically, being male (OR = .444, $p = .041$), being forced to partake in sexual activities (OR = 2.826, $p = .041$), being threatened with rape (OR = 3.704, $p = .004$), being raped by someone (OR = 34.20, $p < .0005$), and threatening someone with rape (OR = 27.55, $p < .0005$) were associated with the perpetration of rape.

Model predictive of threatening someone with rape:

Results of logistic regression indicate that the full model comprising the predictors compared with the constant-only model is significant (omnibus test of model coefficients), suggesting that the predictors' ability to distinguish between those who reported threatening someone with rape and those who did not report threatening someone with rape ($\chi^2 = 701.59$, $p < .0005$). The inferential goodness-of-fit statistics, the Hosmer and Lomeshow tests, are non-significant, suggesting a model fit ($p > .05$). The variance in threatening someone with rape accounted for is 66.1% (McFadden Pseudo R2 .661): (Cox & Snell R2 = .326) and (Nagelkerke R2 = .725).

Results indicate some associations between demographic characteristics, country, exposure to and threat of rape, perpetration of rape, and threatened someone with rape (Table 3). Specifically, being older (OR = 1.77, $p < .0005$), being from South Africa (OR = .137, $p < .0005$), being threatened with rape (OR = 10.46, $p < .0005$), being raped by someone (OR = 5.87, $p < .0005$), and having raped someone (OR = 26.13, $p < .0005$) were associated with having threatened someone with rape.

Table 2. Logistic Regression Analysis of Predictors of Perpetration of Rape^a

Variable	B	S.E.	Wald	p	OR	95% C.I. for OR	
						LB	UB
Age	-.186	.187	.989	.320	.830	.576	1.198
Gender ^b	-.812	.398	4.162	.041	.444	.204	.969
Relationship status ^c	-.235	.406	.336	.562	.790	.357	1.751
Country (Nigeria vs South Africa)	.208	.653	.101	.750	1.231	.342	4.424
Being pressured for sex without condom	.605	.566	1.143	.285	1.832	.604	5.558
Being forced to partake in sexual activities	1.039	.508	4.186	.041	2.826	1.045	7.647
Being pressured for sex without force	-.024	.455	.003	.958	.976	.400	2.383
Being threatened to partake in sexual activities	-.178	.523	.116	.733	.837	.300	2.331
Being threatened with rape	1.309	.451	8.441	.004	3.704	1.531	8.959
Being raped	3.532	.438	64.937	<.0005	34.204	14.486	80.759
Threatened someone with rape	3.316	.443	56.091	<.0005	27.553	11.569	65.625

Note: CI = Confidence interval; LB = Lower bound; UB = Upper bound.; OR = Odds Ratio

^aPerpetration of Rape (Yes = 1, No = 0). ^bFemale = 1, Male = 0. ^cDo you currently have a partner: - Yes = 1, No = 0.

^dNigeria = 1, South Africa = 0.

Table 3. Logistic Regression Analysis of Threatening Someone with Rape^a

Variable	B	S.E.	Wald	p	OR	95% C.I. for OR	
						LB	UB
Age	.573	.156	13.403	<.0005	1.774	1.305	2.410
Gender ^b	-.292	.321	.832	.362	.746	.398	1.399
Relationship status ^c	.097	.324	.089	.765	1.102	.584	2.079
Country (Nigeria vs South Africa) ^d	-1.986	.547	13.204	<.0005	.137	.047	.401
Being pressured for sex without condom	.164	.491	.111	.739	1.178	.450	3.085
Being forced to partake in sexual activities	-.157	.466	.114	.736	.855	.343	2.131
Being pressured for sex without force	-.187	.400	.218	.641	.830	.379	1.818
Being threatened to partake in sexual activities	.234	.476	.242	.623	1.264	.497	3.211
Being threatened with rape	2.347	.336	48.704	<.0005	10.459	5.410	20.220
Being raped	1.769	.422	17.562	<.0005	5.866	2.564	13.418
Perpetration of rape	3.263	.455	51.357	<.0005	26.129	10.704	63.782

Note: CI = Confidence interval; LB = Lower bound; UB = Upper bound.; OR = Odds Ratio

^aThreatening Someone with Rape (Yes = 1, No = 0). ^bFemale = 1, Male = 0. ^cDo you currently have a partner :Yes = 1, No = 0. ^dNigeria = 1, South Africa = 0.

Discussions

The present study examined gender and country differences in victimization and perpetration of physical and sexual violence, as well as the association between victimization and perpetration among high school students in Nigeria and South Africa. The findings suggest some variations in victimization experiences between adolescents in the two countries and support previous findings regarding violence-supportive attitudes, beliefs, and behaviors (Fakunmoju et al., 2021; Fakunmoju & Rasool, 2018). As indicated in this study, adolescents in South Africa were more likely to report experiences of sexual violence, threats of rape, and victimization by rape than adolescents in Nigeria. This high reporting of violence is consistent with the high prevalence rates of sexual violence in South Africa (Afrika Check, 2020, n. p.; Burton et al., 2015; Jewkes & Abrahams, 2002; Meinck et al., 2016; World Population Review, 2020).

Findings also suggest that adolescents in Nigeria were more likely to report being forced to have sex without protection than South African adolescents, which are risk factors for sexually transmitted diseases and unwanted pregnancies. Prevalence of unwanted pregnancy among adolescents is well documented (Kassa et al, 2018; National Population Commission 2013; Panday et al., 2009). The differences between the countries in victimization of sexual violence also extend to perpetration of rape. Specifically, South African adolescents were more likely to report perpetrating rape, threatening to rape, and actually raping than Nigerian adolescents. This finding is consistent with past and present statistics indicating high levels of gender-based violence and rape culture in South Africa (Orth, 2020).

Several factors may contribute to these variations in findings, despite the similarities in patriarchal structures and ideologies and differences in cultural norms, attitudes, and socialization experiences of adolescents between the two countries. It is possible that adolescents in Nigeria are not as exposed to rape and gender-based violence (GBV) education as adolescents in South Africa, so they may not define some experiences as rape. It is also possible that vestiges of patriarchy regarding violence may have heightened tolerance for violence among adolescents in South Africa compared to those in Nigeria.

The finding that adolescent boys were more likely to report physical and sexual violence victimization than adolescent girls is consistent with previous reports in South Africa (Burton et al., 2015; Young et al., 2021). This propensity of boys to report more than girls may be surprising since men and boys usually see reporting rape and sexual violence as un-masculine (Sundaram et al., 2004). Nevertheless, several factors may contribute to boys being more likely to report victimization than girls. Social and cultural norms surrounding the disclosure of abuse, such as the normalization of abuse and lack of disciplinary actions, along with potential consequences like stigma, shame, and fear of retaliation, may discourage girls from reporting their experiences. Girls may be more inclined to disclose victimization

when justice is feasible and support is available, whereas boys may feel comfortable disclosing violence if they believe there will be no negative consequences. Disclosure of sexual abuse is often delayed, with female victims frequently waiting until adulthood (Mooney, 2020), exacerbated by the lack of discussions on the topic between parents and adolescents (Lipscombe & Farmer, 2007).

In addition to gender and country differences, some notable findings emerged from the associations of the examined variables. Being threatened with rape and being raped were both associated with rape perpetration and threats, suggesting possible normalization effects of rape victimization and threats among adolescents. Threatening someone with rape, particularly among males, and being forced to partake in sexual activities were associated with rape perpetration, suggesting the reinforcing effects of rape-supportive behaviors and the cyclical nature of violence among adolescents (Bandura, 1978, 1986; Widom, 1989a, b). Threatening others and being victimized by rape can normalize or sustain violent sexual conduct, potentially increasing the risk of becoming a perpetrator. Similarly, being older was associated with threatening someone with rape, which may be attributed to greater sexual awareness, opportunities for unsupervised interactions, and aggressive risk-taking behaviors common during adolescent development. Older adolescents may have greater exposure to harmful sexual attitudes through media or peer influences, fostering problematic behaviors and unhealthy relationships with the opposite sex. Additionally, older adolescents may have better-developed social and cognitive skills, which could be misused to manipulate or intimidate others.

Theoretical Relevance of Social Learning and Social Ecological Theory

Social learning theory helps explain the findings that adolescent boys are more likely to report being victims of rape and that there is a connection between being raped and committing rape (Bandura, 1978, 1986). Adolescent males who witness or experience violence may perceive aggressive behavior as a justifiable way to assert control or authority, prompting them to imitate such actions. These impulses can be reinforced by social environments where violent behavior is tolerated or rewarded, such as through peer status. This aligns with the cycle of violence theory (Bandura, 1978, 1986; Widom, 1989a, b), which suggests that experiencing violence increases the likelihood of perpetrating it. Girls may be reluctant to disclose mistreatment due to fear of reprisals or stigma, which also fits with social learning theory. If female adolescents encounter negative consequences for reporting abuse, they may learn to stay silent. In contrast, boys may learn that their violent behavior, including sexual assault, is often excused or even encouraged in certain settings, increasing the likelihood of continued aggression.

Social learning theory (Bandura, 1978, 1986) also explains why adolescents in South Africa are more likely than their Nigerian counterparts to report being threatened with or having committed rape. Adolescents in both countries are exposed to different social and cultural models of behavior. In South Africa, where exposure to violence may be more frequent and punishments less severe, young people may

find it easier to adopt and replicate violent behaviors. Conversely, stricter deterrents and fewer examples of such behavior in Nigeria may reduce these actions among adolescents.

Ecological systems theory (Bronfenbrenner, 1979, 1986) provides a framework for understanding how broader cultural and environmental factors shape adolescents' violent behavior in both countries. The higher rates of violence in South Africa could be attributed to historical and economic hardships (exosystem and chronosystem), widespread communal violence (microsystem), and weakened support networks (mesosystem). Additionally, cultural norms in South Africa (macrosystem) may be more accepting of violence. Understanding these ecological layers emphasizes the need for targeted interventions at different levels and clarifies why violence manifests differently in each country.

Strengths and Limitations

This study has notable strengths and limitations. A key strength is its contribution to understanding adolescents' victimization and perpetration of physical and sexual violence through a cross-national lens. Comparing different countries offers valuable insights into the developmental, systemic, cultural, and contextual factors that influence violent behaviors, helping to identify areas that require attention and informing the creation of measures to address pro-violent behaviors among adolescents.

However, the study has some limitations. It did not examine adolescents' exposure to violence within their own families, which could be a confounding factor in understanding the relationship between family violence and the victimization and perpetration of physical and sexual violence. Additionally, the study did not account for the hierarchical structure of the data, especially regarding gender differences in victimization and perpetration within the countries. There were also substantial differences in the group sizes between those who responded 'yes' and 'no' to questions on victimization and perpetration, both within and between the countries.

Implications and conclusions

South Africa is known for having a more pervasive rape culture (Orth, 2020), highlighting the need for increased attention to the vulnerability of boys to violence. More research and innovative intervention strategies are required to address this issue. Ignoring the high levels of violence experienced by boys risks perpetuating the cycle of violence across generations (Widom, 1989a, b). Therefore, it is essential

to place social workers, psychologists, and counselors in schools to identify and intervene in cases of adolescent exposure to violence (Maphosa, 2022). These professionals are also needed to develop and implement locally relevant prevention and intervention programs that involve adolescents, educators, parents, and the broader community. Examples include bystander intervention, peer mentoring, counseling services, parent involvement, school policy reform, and safe reporting mechanisms.

Given that boys are more likely to disclose victimization than girls, future qualitative research should continue to explore the factors that influence boys' propensity to report abuse and the reasons girls may be less likely to disclose their experiences. It is equally important not to overlook the vulnerability of girls; understanding and addressing the barriers to their disclosures of violence is crucial. Creating safe environments for girls to share their victimization experiences without fear of retaliation, shame, or stigmatization is necessary.

In conclusion, these findings underscore the need for targeted interventions that address the unique experiences of male and female adolescents concerning violence in these regions. Social service and counseling professionals, such as social workers and psychologists, play a critical role in prevention by developing locally relevant group and community work strategies that help young people navigate complex relationships and foster healthy, non-violent intimate partner relationships.

Data Availability Statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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