Sexual violence experience among Nigerian girls and young women: What are the roles of early sexual debut, multiple sex partnerships, and traditional gender role beliefs?

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Abstract

In Nigeria, one in four females has experienced some form of sexual abuse. Therefore, it is imperative to examine risk factors associated with sexual violence victimization of Nigerian girls and young women to identify targets for prevention and help stakeholders prioritize response efforts. The present article focuses on secondary data analyses of 1,766 females, aged 13 to 24, interviewed in the population-based 2014 Nigeria Violence Against Children Survey. The outcome of interest is lifetime sexual violence (LSV). Several potential predictors were explored: beliefs about gender roles related to sex, early sexual debut (aged <16 years), and multiple sex partners in the past 12 months. Other risk factors assessed were age, ethnicity, religion, education, marital status, and employment. Logistic regression analyses estimated adjusted odds ratios (AORs) with 95% confidence intervals (CIs). Results revealed that females who endorsed beliefs about patriarchal sexual decision-making (AOR = 2.1, 95% CI = [1.28, 3.32]) or ever attended school (AOR = 2.4, 95% CI = [1.35, 4.34]) were more likely to report experiencing LSV. Prevention programs that target traditional norm beliefs about gender and sexuality have the potential to influence sexual violence in Nigeria. In addition, school attendance may expose females to potential perpetrators. Thus, to prevent sexual violence of girls who attend school, implementing safety measures may be beneficial for protecting them while in and traveling to/ from school.

Introduction

Sexual violence is a serious public health issue that disproportionately affects females and is usually associated with adverse physical and psychological outcomes (Hillis et al., 2016; WHO, 2012). It is defined as a sexual act that is committed or attempted by another person without freely given consent of the victim or against someone who is unable to consent or refuse. Sexual violence includes forced or alcohol/drug facilitated penetration of a victim; forced or alcohol/drug facilitated incidents in which the victim was made to penetrate a

perpetrator or someone else; non-physically pressured unwanted penetration; intentional sexual touching; non-contact acts of a sexual nature; or forcing or coercing a victim to engage in sexual acts with a third party (Basile et al., 2014). Global approximations indicate that one-third of girls/women have experienced sexual abuse at some point in their lifetime (Garcia-Moreno et al., 2015). A meta-analysis of 7,231 studies spanning 56 countries revealed that non-partner sexual abuse was highest among women in sub-Saharan Africa; childhood sexual abuse rates were generally higher in this region compared to other parts of the world (UNICEF, 2014). Violence Against Children and Youth Surveys (VACS) conducted in 14 African countries, including Nigeria, have consistently revealed that among youth aged 13–24, approximately 1 in 3 girls have experienced some form of childhood sexual abuse (NPopC, 2016). In Nigeria, almost half (48%) of girls ages 13–24 who had been sexually abused before age 18 experienced their first incident between 16 and 17 years old, and another third (32%) between ages 14 and 15 (NPopC, 2016).

Ending pervasive sexual violence against females is one of Nigeria's national priorities under their expanded Sustainable Development Goals for 2030 (Target 16.2). Nigeria is the most populous country in Africa. It is an ethnically and culturally diverse nation with more than 250 ethnic groups that speak 500 indigenous languages. Over 62% of Nigeria's population is under 25 years old (CIA, 2018). Thus, a deeper understanding of lifetime sexual victimization (LSV) among young females in this country is imperative especially given its high prevalence and the sequalae of this form of violence. LSV is associated with higher risk for STIs/HIV, unwanted pregnancy, mental distress, and suicidal thoughts at the individual level and slow socioeconomic development and well-being at the national level (Brown et al., 2009; Chiang et al., 2015; NPopC, 2016). Extant literature has highlighted factors that increase LSV risk (WHO, 2012; Abeid et al., 2014; Mwangi et al., 2015; Lowry et al., 2017). These studies suggest that experiencing sexual violence victimization in one's lifetime depends on synergistic socioecological dynamics. The current study examined three individual-level factors in a sample of young females in Nigeria with the goal being to help inform prevention efforts in the country.

Sexual Risk Behaviors and Lifetime Sexual Violence (LSV)

At the individual level, certain experiences and behaviors have been associated with increased risk of being victimized sexually. Consensual and nonconsensual early sexual debut (ESD; first sex at or before age 15) and multiple sex partnership (MSP; more than one sex partner in the past 12 months) have been identified as risk factors for LSV (Benti & Teferi, 2015; Seutlwadi et al., 2015; Beyene et al., 2019). For instance, Lowry and colleagues (2017) found that in a national sample of US high school students, prevalence of ever being physically forced to have sex increased significantly as age at sexual debut decreased. There is also compelling evidence from studies conducted in African countries that a strong relationship exists between MSP and LSV (Beyene et al., 2019). For example, the odds of experiencing LSV were as high as 7.24 in Ethiopia relative to those with only one partner in their lifetime (Benti & Teferi, 2015). Although trends in these sexual risk behaviors are moving in a favorable direction in many countries, there has been evidence to suggest that they have been on the rise among Nigerian youth (Yakubu & Salisu, 2018). Therefore, further exploration of these factors is justified to better understand their unique

and combined associations with risk for sexual violence within a diverse and vulnerable population of girls and young women in Nigeria.

Traditional Sex-Related Beliefs and Lifetime Sexual Violence

Traditional sex-related beliefs regarding violence against women and children as culturally acceptable may contribute substantially to high rates of LSV in Nigeria. One of the country's national priority action plans for ending childhood violence is to change societal perceptions and traditional beliefs that have normalized and hidden violence against children and women (NPopC, 2015). Gender role beliefs related to male superiority and sexual entitlement (e.g., sex is a man's right in marriage, rape is a sign of masculinity, etc.) have been shown to be key factors contributing to sexual violence perpetrated against Nigerian females (Ayotunde et al., 2014; Gage & Thomas, 2017). Patriarchal relationships are often viewed as cultural norms where men have power and authority over women based on societal conformities, and state laws (Sharia) in some areas sanction females for non-marital sexual behaviors and for disobeying their husbands/male partners (Odimegwu & Somefun, 2017). Further, the societal norm in much of sub-Saharan Africa is acceptance of violence against women and children who often believe the abuse they suffer is justified (Wight et al., 2012). Researchers have suggested that shifting sociocultural norms is essential for preventing victimization (WHO, 2009; Abeid et al., 2014; Doyle et al., 2018). Therefore, investigations into LSV must take dominant sociocultural contextual factors and gender-power relations into account. However, despite Nigeria being steeped in long-standing patriarchal norms, to our knowledge, no studies have examined the association between traditional sex-related beliefs – beyond rape myths (Mennicke et al., 2018) and women's right to refuse sex (Abramsky et al., 2014) – and sexual violence experiences, and that is a primary aim of the current study.

Purpose of Current Study

The overall intent of this paper is to aid the Nigerian multi-sectoral response to sexual violence, a major public health problem, by presenting meaningful findings on LSV factors at the individual social ecology level. This study contributes to the existing literature in several ways. First, most previously conducted investigations on LSV risks have been limited to females over age 15, small or unrepresentative samples, qualitative research, and studies conducted primarily in South Africa, Tanzania, and Zimbabwe (WHO, 2012; Abeid et al., 2014; Richter et al., 2014; Dureval & Lindkog, 2015; Garcia-Moreno et al., 2015). This study expounds on prior research by including a nationally representative sample of Nigerian females aged 13–24. Second, it expands upon prior LSV work by examining the relationship between LSV and two common sexual risk behaviors (early sexual debut, multiple sex partners) within the same participant sample, as well as the influence of sex-related norm beliefs on LSV. We hypothesized that those who debuted sexually before age 16, had more than one sexual partner in the past 12 months, and endorsed at least one belief about traditional sexual norms would be at greater odds of LSV.

Methods

Design and Sample

This study used data collected in the Nigeria VACS, which obtained information on childhood emotional, physical, and sexual violence. This nationally representative, cross-sectional survey was conducted May to July 2014 in every state in Nigeria (see NPopC, 2016 and Nguyen et al., 2019 for detailed information on survey methodology and sampling design). After obtaining informed consent/assent, data were collected from 4,203 non-institutionalized males and females aged 13–24 with diverse backgrounds (i.e., in terms of socioeconomics, ethnicity, language, and geography). Participants were randomly selected from households throughout the country and interviewed by trained culturally-sensitive interviewers. The study used a split sample approach such that surveys for females were conducted in different enumeration areas than that of males to yield a representative sample for both genders. Only female interviewers conducted interviews in female enumeration areas and, likewise, only male interviewers in male enumeration areas. The survey resulted in an overall response rate of 93% for both males and females (household response rate – 97.5% for females and 97.0% for males; individual response rate – 96.2% for females and 96.7% for males). Nigeria VACS is currently the sole source of population-based estimates on the scope and types of violence experienced by youth and on commonly associated risk and protective factors (demographics, traditional sex-related beliefs, sexual risk behaviors, health outcomes, etc.).

Data from all female respondents were extracted from this national dataset to perform secondary analyses. This sub-group was selected because the Nigeria VACS found that girls/young women in Nigeria were more likely to be sexually active and to have experienced sexual violence than boys/young men (NPopC, 2016). Moreover, the literature suggests that traditional gender norms in Nigeria are associated with greater risk of sexual abuse for females than males (Ayotunde et al., 2014; Gage & Thomas, 2017).

To proactively address potential missingness, the study put several steps/processes in place to maximize disclosure. For example, younger interviewers, who were the same gender as the person surveyed, were intentionally selected to help respondents feel more comfortable with sharing sensitive information with the interviewer. Interviewers were also trained extensively on how to maximize rapport with participants and ensure privacy of participants to reduce their risk of retaliation. These safeguards increase the confidence of the research team that, besides skip patterns built into the study, missing data may mostly be missing at random.

Measures

Dependent variable.—Lifetime sexual violence was the outcome of interest. Four dichotomous questions documented types of abuse experienced. Respondents were asked about having ever experienced unwanted sexual touching (fondling, pinching, grabbing, or touching on or around sexual body parts), unwanted attempted sex ("tried to make you have sex against your will but did not succeed"), pressured sex ("pressured you to have sex, through harassment, threats, or tricks and did succeed"), and physically forced sex

("physically forced you to have sex and did succeed"). A composite variable was created to reflect whether participants had ever experienced at least one form of sexual violence. Those who indicated "don't know" or "declined" on the items within each measure were coded as missing data since there was no way to determine if these individuals had not experienced abuse or simply declined to respond.

Explanatory variables.—Predictors for lifetime sexual violence (LSV) were ascertained from the literature and consist of three individual risks: age at sexual debut, multiple sex partnership, and endorsement of traditional beliefs about gender roles related to sexual behavior. Several demographic characteristics were also assessed. Age was dichotomized into those aged 13–17 and 18–24 years old when interviewed to distinguish between child and adult respondents. A categorical variable was created from the question on participants' ethnicity to indicate Fulani/Hausa, Ibo/Igbo, Yoruba, and all others combined. Education was taken from the question on having ever attended school. To ascertain religion, those who responded Catholic or other Christian were treated as one group and Islam as another; the eight people reporting another religion were coded missing for this variable. For employment, participants were asked if they had engaged in any work for at least one hour during the past week. Lastly, marital status was assessed by asking if participants had ever been married or lived with someone as if married.

Early sexual debut was created from the question, "How old were you when you had sex for the very first time?" Having sex for the first time at age 15 or younger was considered early sexual debut (ESD) and at age 16 or older was later sexual debut (non-ESD). Multiple sex partners (MSP) was measured using, "How many people have you had sex with in the past 12 months?" Those indicating two or more partners were treated as MSP.

Respondents were asked questions about their traditional sex-related beliefs: (1) "do you believe it is right for a man to hit or beat his wife if she refuses to have sex with him?" and "Do you believe: (2) men, not women, should decide when to have sex; (3) men need more sex than women; (4) men need to have sex with other women, even if they have good relationships with their wives; and (5) women who carry condoms have sex with a lot of men?" A dichotomous composite variable was created to determine whether participants endorsed at least one of the beliefs or none of them.

Statistical Analyses

Analyses were restricted to female participants. Descriptive statistics were computed for the outcome, predictors, and covariates examined. Rao-Scott Chi-square Tests (Scott & Rao, 1981; Scott, 2007) assessed differences in demographic characteristics, gender role beliefs, and sexual risk behaviors between those who had ever experienced any form of sexual violence in their lifetime compared to those who had not suffered such victimization. Bivariate logistic regression models were conducted to explore the independent associations between LSV and ESD, MSP, and endorsement of traditional gender role beliefs. To assess the robustness of these bivariate relationships, multivariable logistic regression was performed to examine the association between these three independent variables and LSV while simultaneously controlling for potential confounders (age, ethnicity, religion,

education, marital status, and recent employment). Models yielded unadjusted and adjusted odds ratios (ORs) with 95% confidence intervals. Statistical significance was regarded as a p-value below 0.05.

Given the complex survey sample design of VACS, clustering, stratification, and sample weights were accounted for in the statistical analyses to obtain accurate estimates, standard errors, percentages, 95% confidence intervals, and p values representative of the national population. Weighting accounted for differences in sampling across regions, varying selection probabilities of households per enumeration area, and individual participants in a sampled household. Analyses were performed using SAS Systems for Windows (version 9.3), which has procedures that incorporate the sampling weights and cluster-stage design (SAS Institute, 2011).

Results

Study Participants

Table 1 shows descriptive statistics on all variables in the model as well as other relevant characteristics of the sample ($N = 1,766$ females). Responses were stratified by whether participants had ever experienced any of the four types of sexual violence (Table 2). All of the variables under study were associated with LSV at $p < 0.05$. Moreover, there were statistically significant differences between women who reported experiencing LSV and those who did not (non-LSVs). Women reporting LSV were more likely to report having more than one sexual partner in the past 12 months [χ^2: 21.1(1)], to endorse at least one of the beliefs about traditional gender roles [χ^2: 28.0(1)], to be in the older age group [χ^2: 23.1(1)], to have attended school [χ^2: 34.2(1)], to have worked recently [χ^2: 6.7(1)], and to be Christian or Catholic [χ^2: 81.9(1)]. Conversely, a higher proportion of women reporting no history of LSV debuted sexually at age 15 or younger [χ^2: 15.9(1)] and had ever been married or cohabitating as if married [χ^2: 4.8(1)]; differences in ethnicity were also observed between LSV and non-LSV [χ^2: 69.9(3)].

Factors Associated with Lifetime Sexual Violence

Table 3 presents the unadjusted and adjusted odds ratios for the three primary risk factors, as well as the six covariates, and their relation to LSV. In the crude analyses, all nine explanatory variables were significantly associated with LSV. After adjustment, associations with endorsement of sex-related gender role beliefs, school attendance, and marital status remained statistically significant in the multivariable logistic regression model.

Individual risk factors.—The bivariate relationship between early sexual debut and ever experiencing any form of LSV was statistically significant but not in the hypothesized direction. It was expected that participants who debuted sexually before age 16 would be <u>more</u> likely to experience sexual violence compared to their counterparts who first had sex at or after 16 years old. Instead, early debuters were <u>less</u> likely to report sexual violence in their lifetime [OR=0.56; 95% CI (0.41 – 0.76); $p = .0002$]. However, after adjusting for the covariates in the final model, this finding was attenuated and the relationship was no longer statistically significant [AOR=1.02; 95% CI (0.70 – 1.50); $p = .90$].

The odds of LSV among those with multiple sex partners in the past 12 months was almost six times higher compared to participants who did not have more than one partner [OR=5.77; 95% CI (2.46 – 13.52); p =<.0001]. This relationship between MSP and LSV was no longer statistically significant once we controlled for the other covariates in the model [AOR=1.43; 95% CI (0.52 – 3.95); p = .49].

Traditional sex-related beliefs.—Holding a traditional sex-related belief about sexual behavior was significantly and positively associated with LSV. Both the unadjusted and adjusted logistic regression models revealed that the odds of experiencing LSV were two times higher among participants who endorsed a traditional sex-related belief compared to those who did not endorse any of the traditional beliefs [OR=2.31, 95% CI (1.70 – 3.16; p <.0001 and AOR=1.94, 95% CI (1.19 – 3.16); p = .008].

Demographic risk factors.—Other covariates significantly associated with experiencing any sexual violence include education and marriage. On average, participants who had ever attended school were almost two and a half times more likely than those who had not to experience LSV [AOR=2.49; 95% CI (1.38 – 4.51); p = .003]. Conversely, compared to participants who had ever been married or cohabiting, those who had not experienced 71% higher odds of LSV [AOR=0.29; 95% CI (0.17 – 0.50); p =<.0001].

Discussion

Sexual violence is a deeply traumatic experience that disproportionately affects young women. The goal of this study was to explore individual factors that contribute to LSV risk among girls and young females living in Nigeria in order to inform prevention efforts. Hypotheses were partially supported, with findings suggesting that females who endorsed a traditional sex-related belief or who ever attended school were at greater risk for LSV. Given that sexual violence prevention is less developed than prevention efforts for other types of violence (e.g., youth violence) and public health topics (e.g., HIV prevention) (Basile et al., 2015), the primary contribution of this article is the identification of potential targets for prevention to thwart this type of victimization. This study extends previous research that has primarily focused on tolerance or justification of spousal abuse and fills a gap in the literature on key determinants of LSV experienced by young Nigerian females. The findings provide insight into individual risk factors associated with LSV in a relatively understudied, but rapidly growing country that is home to over 126 million people under age 25 living in Africa (CIA, 2018).

Individual Risk Factors

Early sexual debut.—The hypothesized relationship between early sexual debut and sexual violence was not supported by the study findings. While a significant negative bivariate association emerged, in which, surprisingly, non-ESDs were more likely than ESDs to have been sexually victimized, this did not remain significant in multivariable analysis. Prior research on early sexual debut has had mixed findings in terms of the association with LSV, thus, there are studies that both support and conflict with the current findings (Chirinda et al., 2015; Seutlwadi et al., 2015). Contradictory findings suggest that there are likely

important mediating and/or moderating factors that better explain the mechanisms of this association.

Multiple sex partnership.—Surprisingly, MSP was only significantly associated with LSV in bivariate analyses, but not in multivariable analyses. This is inconsistent with research on women (age 18 and older) conducted in other African countries which found a relationship between MSP and LSV (Brown et al., 2009; Benti & Teferi, 2015; Beyene et al., 2019). This discrepancy may be because the number of participants in the present study who reported MSP in the 12 months preceding the survey was small (n=26; 4%) and power to detect statistical significance was limited. Compared to studies of females mostly over 18 years old, this number/proportion is extremely low (Shimekaw et al., 2013; Bekele et al., 2015; Yaya & Bishwajit, 2018), but is akin to a study of adolescent girls ages 15–19 in 24 African countries (Doyle et al., 2012). In light of the current finding, and given the dearth of information on MSP as a risk factor for LSV among young Nigerian females (those under age 18), more research is needed to gain a deeper understanding about the relationship in this unique population.

Traditional sex-related beliefs.—Consistent with the hypothesis, findings revealed that participants who endorsed at least one traditional sex-related belief had twice the odds of experiencing LSV as those who endorsed none. The only comparative studies focused on tolerant attitudes and justification of spousal abuse instead of sex-specific beliefs; nevertheless, these have revealed similar results (Uthman et al., 2011; Ayotunde et al., 2014; Seutlwadi et al., 2015). For example, in a national study of over 20,000 married women in Nigeria, Gage and Thomas (2017) discovered that the percentage of women reporting LSV increased from 3% for those with zero tolerance of wife beating to 10% among those who endorsed four (of five) statements on situations in which spousal abuse is justified; only one of the belief statements assessed was specifically about sexual behavior. Ours is the first known exploratory study to assess traditional sex-related beliefs of young Nigerian females. Therefore, further research is critical for a greater understanding of the predictive nature of this risk factor and to inform the development of responsive, culturally-sensitive programs that can reduce LSV perpetrated against women and children (Wight et al., 2012; NPopC, 2015; PEPFAR, 2016).

Other Significant Factors Increasing the Risk of Lifetime Sexual Violence

Education.—The odds of LSV were almost two and half times higher among participants who had ever attended school compared to those who had never been, a finding corroborated by previous research (Kunnuji & Esiet, 2015; Ward et al., 2018). Unwanted sexual touching and unwanted attempted sex were the most commonly reported types of sexual violence in the current study, with roughly one in five reporting these experiences. A similar study of youth aged 13–24 in Kenya revealed that, among females, the key perpetrators of these forms of sexual abuse were classmates/friends (27%) and the first incident of unwanted touching took place in school (25%); unwanted sexual attempts occurred primarily while travelling on foot (33%) (Mwangi et al., 2015). However, studies in Uganda, Ethiopia and Nigeria have found that educational attainment was associated with a lower likelihood of reporting gender-based violence including sexual abuse (Behrman et al., 2016; Beyene

et al., 2019), which are counter to the current study findings. These differences may be explained by sample characteristics; those over age 18 and attending universities in Uganda, Ethiopia and Nigeria may have different experiences than participants in the current and Kenyan studies who were ages 13–24 and surveyed from households (postsecondary education unknown). It is possible that the threat of sexual violence is higher in primary and secondary schools than postsecondary institutions. Clearly, more research is warranted, with the exploration of mediators or moderators (e.g., age, religion and geographic location) to help further explicate these associations. Regardless, prevention programs need to consider safety planning for travel and classrooms to ensure reductions in LSV risk for females attending school in Nigeria.

Marriage.—Participants who had ever been married or cohabitating were significantly less likely than those who had not to report LSV, which is commensurate with other research (Ezechi et al., 2016; Beyene et al., 2019). Nevertheless, it is probable that participants who had ever been married or cohabitated (35%) may have had more non-consensual sexual experiences than shared, but perhaps did not report the victimization because they were more tolerant of such abuse due to laws and cultural traditions (Ayotunde et al., 2014). Married or cohabitating women may view unwanted sexual experiences with their husband or male partner as obligatory, obedience, or subservience instead of as a violation or a sex crime (Abeid et al., 2014).

Study Limitations

Due to the cross-sectional methodology, the VACS study does not allow for causal inference about the associations observed with LSV. Additionally, the data were self-reported retrospectively and are subsequently subject to limitations from recall bias. For instance, those who were victimized recently may have been more apt to recall incidents of sexual violence than participants whose victimization occurred some time ago. Some respondents also could have been reluctant to openly disclose sensitive information about their sexual risk-taking behaviors and victimization to the interviewers (underreporting and social desirability bias), although the VACS provide rigorous training to interviewers to solicit sensitive information from respondents. Furthermore, VACS is a household survey and, therefore, excluded high-risk populations who did not reside in homes, as well as those with physical or developmental disabilities (severe hearing or speech impediments). It is probable that young people in these situations have different trends of sexual risk-taking behaviors and sexual violence victimization. Further, while this study focused on the experiences of girls/young women, it is imperative that young men be part of these conversations and prevention efforts. The study's exclusive focus on females omits the all-important male perspective on sex-related beliefs as they relate to LSV. Lastly, the traditional sex-related beliefs variable was a new composite consisting of statements that differed from existing social norm scales used in most previous studies. While the measures comprising the scale were derived from 13 standardized, reliable and validated data collection tools used extensively in violence and international studies (USAID, n.d.; Brener et al., 1995; Runyan et al., 1998; Brener et al., 2002; CDC, 2018), further validation of this approach to defining sex-related beliefs is needed.

Implications and Future Research

The current investigation provides a basis for future longitudinal studies to examine the predictive validity of the explored risk factors on LSV. It highlights the need for more research addressing the effect of early sexual debut, multiple sex partnership, traditional sex-related beliefs, and education as potential risk factors of LSV. Additionally, the impact of being married should be explored to determine whether it is truly a protective factor or if the observed lower risk of sexual violence (compared to unmarried/non-cohabiting) is simply a function of underreporting by married/cohabiting young women. Given the critical role that men play in addressing the problem of LSV, understanding sex-related beliefs of males is another worthwhile focus for future research, which this research team plans to explore.

Although sexual violence is a substantial public health problem in Nigeria and worldwide, it may be prevented through culturally-relevant, evidence-based programs implemented at multiple socioecological levels and by involving a wide array of key stakeholders from varied sectors (public health, education, government, justice, media, religion). Study findings highlight important considerations for developing appropriately responsive and effective interventions in Nigeria. The study suggests that LSV experiences among females have been influenced not only by their demographic characteristics and sexual risk behaviors and experiences, but also by traditional sex-related beliefs that promote masculinity and imbalances of power in sexual decision-making between men and women. Prevention programs that strive to alter sociocultural views of what is deemed acceptable and unacceptable sexual behavior based on gender, as well as promote safety for girls attending school and provide comprehensive sexual education and support services, could be beneficial. These align with the seven targeted strategies, known as INSPIRE, which are promoted by several international and domestic government agencies (WHO, UNICEF and the CDC, among others) that have collectively developed an evidence-based technical package of interventions to help countries and communities prevent and respond to violence against children and adolescents. INSPIRE also urges countries and communities to provide support and services when children are victimized.

These combined efforts, along with social movements and media campaigns in Nigeria that condemn violence, could help modify existing systems and sectors to avoid rewarding compliance with disparaging traditional sex-related beliefs and could enhance enforcement of legal protections for women and children to help make females less vulnerable to becoming victims of sexual violence. Existing prevention programs designed to reduce violence by changing social norms could be an effective next step (Doyle et al., 2018; Mennicke et al., 2018; Ambrasky et al., 2014). For instance, the Bandebereho intervention implemented among couples in Rwanda has shown significant reductions in sexual violence among female participants compared to controls (Doyle et al., 2018). Additionally, the SASA! Program is a community mobilization intervention in Uganda that has been associated with significantly lower social acceptance of interpersonal violence (IPV) and greater acceptance of women's choice to refuse sex (among both women and men), as well as lower past year experience of sexual IPV (Abramsky et al., 2014). Empirically-based interventions such as these could be modified to also address the sex-related beliefs assessed

in the current study and adapted using new information from future research to reflect the unique experiences, gender roles and sociocultural norms in Nigeria. Furthermore, it is critical that prevention programs and interventions are rooted in frameworks that understand how traditional gender-power dynamics and social norms interact with other protective and risk factors (at each socioecological level) that sustain and propagate sexual violence against women/girls.

References

Abeid M, Muganyizi P, Olsson P, Darj E, & Axemo P (2014). Community perceptions of rape and child sexual abuse: A qualitative study in rural Tanzania. BMC International Health & Human Rights, 14(23), 1–13.

Abramsky T, Devries K, Kiss L, Nakuti J, Kyegombe N, Starmann E, Cundill B, Francisco L, Kaye D, Musuya T, Michau L, & Watts C (2014). Findings from the SASA! Study: a cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. BMC Medicine, 12(122), 1–17.

Achunike HC & Kitause RH (2014). Rape epidemic in Nigeria: Cases, causes, consequences, and responses to the pandemic. International Journal of Research Applied National Social Science, 2, 31–44.

Ayotunde T, Akintoye OO, & Adefunke ES (2014). Influence of women's attitude on the perpetration of gender-based domestic violence in Nigeria. Gender & Behaviour, 12(2), 20–29.

Basile KC, DeGue S, Jones K, Freire K, Kills J, Smith SG, & Raiford JL (2016). STOP SV: A technical package to prevent sexual violence. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Basile KC, Smith SG, Breiding MJ, Black MC, & Mahendra R (2014). Sexual violence surveillance: Uniform definitions and recommended data elements version 2.0. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Behrman JA, Peterman A, & Palermo T (2016). Does keeping adolescent girls in school protect against sexual violence? Quasi-experimental evidence from East and Southern Africa. Journal of Adolescent Health, 60, 184–190.

Bekele T, Kaso M, Gebremariam A, & Deressa W (2015) Sexual violence and associated factors among female students of Madawalabu University in Ethiopia, 5(190), 1–8.

Benti T & Teferi E (2015). Sexual coercion and associated factors among college female students. Journal of Women's Health Care, 4(4): DOI: 10.4172/2167–0420.1000245

Beyene AS, Chojenta C, Roba HS, Melka AS, & Loxton D (2019). Gender-based violence among female youths in educational institutions of SSA: A systematic review and meta-analysis. Systematic Reviews, 8(59), 1–14. [PubMed: 30606256]

Brener ND, Collins JL, & Kann L. (1995). Reliability of the Youth Risk Behavior Survey questionnaire. American Journal of Epidemiology, 141, 575–80. [PubMed: 7900725]

Brener ND, Kann L, McManus T, Kinchen SA, Sundberg EC, & Ross JG (2002). Reliability of the 1999 Youth Risk Behavior Survey Questionnaire. Journal of Adolescent Health, 31, 336–342.

Brown DW, Riley L, Butchart A, Meddings DR, Kann L, & Harvey AP (2009). Exposure to physical and sexual violence and adverse health behaviours in African children: Results from the Global-based Student Health Survey. Bulletin of the World Health Organization, 87(6), 447–455. [PubMed: 19565123]

Central Intelligence Agency. (2018). The World Factbook: Nigeria. Resource document. CIA. https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html.

Centers for Disease Control and Prevention (CDC). (2018). YRBS Questionnaire Content: 1991–2018. Atlanta: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Division of Adolescent and School Health.

Chiang LF, Cehn J, Gladden MR, Mercey JA, Kwesigabo G, Mrisho F, Dahlberg L, Nyunt MZ, Brookmeyer KA, & Vagi K (2015). HIV and childhood sexual violence: Implications for Sexual

Risk Behaviors and HIV Testing in Tanzania. AIDS Education and Prevention, 27(5), 474–488. [PubMed: 26485236]

Chirinda W, Peltzer K, Ramlgan S, & Louw JS (2015). Early sexual debut and associated risk factors among male and female youth in South Africa. Journal of Psychology in Africa, 22(4), 601–606.

Doyle AM, Mavedzenge SN, Plummer ML, & Ross DA (2012). The sexual behavior of adolescents in sub-Saharan Africa: Patterns and trends from national surveys. Tropical Medicine and International Health, 17(7), 796–807. [PubMed: 22594660]

Doyle K, Levtov RG, Barker G, Bastian GG, Bingenheimer JB, Kazimbaya S, Nzabonimpa A, Pulerwitz J, Sayinzoga F, Sharma V, & Shattuck D (2018). Gender-transformative Bandebereho couples' intervention to promote male engagement in reproductive and maternal health and violence prevention in Rwanda: Findings from a randomized controlled trial. PLoS ONE, 13(4), 1–17.

Dureval D & Lindskog A (2015). Intimate partner violence & HIV in ten sub-Sharan African countries: what do Demographic & Health Surveys tell us? Lancet Global Health, 3(1), 34–43.

Ezechi OC, Musa ZA, David AN, Wapmuk AE, Gbajabiamila TA, Idigbe IE, Ezeobi PM, Ohihoin AG, & Ujah IAO (2016). Trends and patterns of sexual assaults in Lagos south-western Nigeria. Pan African Medical Journal, 24(261), 1–9.

Gage AJ & Thomas NJ (2017). Women's work, gender roles, and intimate partner violence in Nigeria. Archives of Sexual Behavior, 46(7), 1923–1938. [PubMed: 28695296]

Garcia-Moreno C, Zimmerman C, Morris-Gehring A, Heise L, Amin A, & Abrahams N (2015). Addressing violence against women: A call to action. Lancet, 385(9978), 1685–1695. [PubMed: 25467579]

Hillis S, Mercy J, Amobi A, & Kress H (2016). Global prevalence of past-year violence against children: A systematic review and minimum estimates. Pediatrics, 137(3), 1–15.

Kunnuji MO & Esiet A (2015). Prevalence and correlates of sexual abuse among female out-of-school adolescents in Iwaya Community, Lagos State, Nigeria. African Journal of Reproductive Health, 19(1), 82–90. [PubMed: 26103698]

Lowry R, Robin L, & Kanin L (2017). Effect of forced sexual intercourse on associations between early sexual debut and other health risk behaviors among US high school students. Journal of School Health, 87(6),435–447.

Mennicke A, Kennedy SC, Gromer J, & Klem-O-Connor M (2018). Evaluation of a social norms sexual violence prevention marketing campaign targeted towards college men: Attitudes, beliefs, and behaviors over 5 years. Journal of Interpersonal Violence, 00(0), 1–23.

Mwangi MW, Kellogg TA, Brookmeyer K, Buluma R, Chiang L, Otieno-Nyunya B, Chessang K, & Kenya 2010 VACS Team. (2015). Perpetrators and context of child sexual abuse in Kenya. Child Abuse & Neglect, 44, 46–55. [PubMed: 25882669]

National Population Commission of Nigeria (NPopC), UNICEF Nigeria, & Centers for Disease Control and Prevention. (2016). Violence Against Children in Nigeria: Findings from a National Survey, 2014. Abuja, Nigeria: UNICEF, 2016.

National Population Commission of Nigeria (NPopC), UNICEF Nigeria, & Centers for Disease Control and Prevention. (2015). Ending Violence Against Children in Nigeria: Priority Actions. Abuja, Nigeria: UNICEF, 2015.

Nguyen KH, Kress H, Villaveces A, & Massetti GM (2019). Sampling design and methodology of the Violence Against Children and Youth Surveys. Injury Prevention, 25(4), 321–327. [PubMed: 30472679]

Odimegwu C & Somefun OD (2017). Ethnicity, gender and risky sexual behavior among Nigeria youth: An alternative explanation. Reproductive Health, 14(16), 1–15. [PubMed: 28057003]

Richter L, Komarek A, Desmond C, Celentano D, Morin S, Sweat M, Chariyalertsak S, Chingono Al, Gray G, Mbwambo J, & Coates T (2014). Reported physical and sexual abuse in childhood and adult HIV risk behaviour in three African countries: Findings from Project Accept (HPTN-043). AIDS Behavior, 18(2), 381–389. [PubMed: 23474641]

Runyan DK, Curtis PA, Hunter WM, Black MM, Kotch JB, Bangdiwala S, Dubowitz H, English D, Everson MD, & Landsverk J (1998). LONGSCAN: A consortium for longitudinal studies of maltreatment and the life course of children. Aggression and Violent Behavior, 3(3), 275–285.

SAS Institute Inc. 2011.SAS/STAT®9.3 User's Guide. Cary, NC: SAS Institute Inc.

Scott A & Rao J (1981). Chi-squared tests for contingency tables with proportions estimated from survey data. In: Krewski D, Platek R, & Rao J, editors. Current Topics in Survey Sampling (pp. 247–265). Cleveland, OH: Academic Press.

Scott A (2007). Rao-Scott corrections and their impact. Resource document. American Statistical Association. http://www.asasrms.org/Proceedings/y2007/Files/JSM2007-000874.pdf.

Seutlwadi L, Matseke G, & Peltzer K (2015). Sexual violence and associated factors among female youths in South Africa. Gender & Behavior, 13(1), 6465–6470.

Shimekaw B, Megabiaw B, & Alamrew Z (2013). Prevalence and associated factors of sexual violence among private college females in Bahir Dar city, North Western Ethiopia. Health, 5(6), 1069–1075.

UNICEF. (2014). Hidden in Plain Sight: A statistical analysis of violence against children. New York: UNICEF.

United States Agency for International Development. (n.d.). The Demographic and Health Surveys (DHS) Program. Resource document. https://dhsprogram.com/What-We-Do/Survey-Types/DHS-Questionnaires.cfm.

United States President's Emergency Plan for AIDS Relief (PEPFAR). (2016). Evaluation: Nigeria Gender Assessment. Global Health Performance Cycle Improvement Project: Washington, DC.

Uthman OA, Moradi T, & Lawoko S (2011). Are individual and community acceptance and witnessing of IPV related to its occurrence? Multilevel SEM. PLos ONE, 6(12), 1–8.

Ward CL, Artz L, Leoschut L, Kassanjee R, & Burton P (2018). Sexual violence against children in S. Africa: A nationally representative cross-sectional study of prevalence and correlates. The Lancet, 6(4), 460–468.

Wight D, Plummer M, & Ross D (2012). The need to promote behavior change at the cultural level: One factor explaining the limited impact of MEMA kwa Vijana adolescent sexual health intervention in rural Tanzania. A process evaluation. BMC Public Health, 12(788), 1–12. [PubMed: 22214479]

World Health Organization. (2012). Understanding and addressing violence against women. WHO. http://apps.who.int/iris/bitstreat/10665/77434/1/WHO_RHR_12.37_eng.pdf.

World Health Organization. (2009). Changing cultural and social norms that support violence. WHO. https://www.who.int/violence_injury_prevention/violence/norms.pdf.

Yakubu I & Salisu WJ (2018). Determinants of adolescent pregnancy in sub-Saharan Africa: A systematic review. Reproductive Health, 15(15), 1–11. [PubMed: 29304829]

Yaya S & Bishwajit G (2018). Age at first sexual intercourse and multiple sexual partnerships among women in Nigeria: A cross-sectional analysis. Frontiers in Medicine, 5(171).

Table 1

Demographic characteristics of females, 2014 Nigeria VACS (N=1,766)

Characteristic	*n*	Weighted %
Age group		
13–17 years old	797	40.8
18–24 years old	969	59.2
Ever attended school	1371	77.6
Recently employed	812	46.3
Ethnicity		
Hausa-Fulani	559	35.2
Igbo/Ibo	328	16.1
Yoruba	304	18.0
Other	468	30.7
Religion		
Christian/Catholic	931	51.7
Islam	825	48.3
Ever married/lived with someone as married	607	34.6
Sexual Violence Experiences		
First sexual intercourse forced/coerced[1]	210	25.0
Ever touched sexually	344	19.7
Ever a sexual attempt made	336	18.7
Ever pressured to have sex	78	5.3
Ever forced to have sex	214	13.4
Ever any sexual violence in lifetime	609	35.2
Sexual Risk-taking Behaviors		
Age at first sex		
< 16 years old	408	45.1
>=16 years old	491	54.9
Number of sexual partners, past 12 months		
1	725	96.1
2+	26	3.9
Traditional Sex-related Beliefs		
Do you believe:		
It is right for a man to hit or beat his wife if she refuses to have sex with him?	293	18.2
Men, not women, should decide when to have sex?	751	52.0
Men need more sex than women?	959	68.7
Men need to have sex with other women, even if they have good relationships with their wives?	198	13.1
Women who carry condoms have sex with a lot of men?	753	55.9
Endorsed at least one traditional sex-related belief	1254	76.6

[1] This reflects only the participants who reported having ever had sex and who responded to the question about their first time being because she wanted to versus was forced to.

Table 2

Differences between Nigerian females ages 13–24 who did versus did not experience lifetime sexual violence on demographic characteristics and risk factors

	Ever Experienced LSV		
	Yes	No	Chi-square *p*-value
Early sexual debut (<16 years old)	155 (37.3%)	253 (51.5%)	*p*<.0001
Multiple sex partners	18 (3.6%)	8 (0.65%)	*p*<.0001
Endorsed at least 1 norm belief	506 (85.3%)	748 (71.5%)	*p*<.0001
Age group			
13–17 years old	202 (30.9%)	594 (46.2%)	*p*<.0001
18–24 years old	407 (69.1%)	562 (53.8%)	
Ethnicity			*p*<.0001 [*]
Hausa-Fulani	74 (15.5%)	485 (45.7%)	
Igbo/Ibo	173 (23.8%)	155 (12.1%)	
Yoruba	132 (22.0%)	172 (15.8%)	
Other	182 (38.7%)	285 (26.4%)	
Ever attended school	552 (89.5%)	818 (71.2%)	*p*<.0001
Ever married or cohabitating	178 (29.6%)	429 (37.4%)	*p* = .03
Worked during past week	295 (51.5%)	517 (43.4%)	*p* = .01
Religion			
Christian/Catholic	467 (73.8%)	463 (39.7%)	*p*<.0001
Islam	137 (26.2%)	688 (60.3%)	

Each row highlights percentage differences between groups.

[*] This p-value reflects the difference in overall ethnicity by group.

Table 3

Results of unadjusted and adjusted multiple logistic regressions assessing risk factors for lifetime sexual violence among Nigerian females ages 13–24

	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios[1] (95% CI)
Age at sexual debut		
<16 years old	0.56 (0.41, 0.76) **	1.02 (0.70, 1.51)
16+ years old	1.00	1.00
Multiple sex partners, past 12 months		
Yes	5.77 (2.46, 13.52) ***	1.43 (0.52, 3.95)
No	1.00	1.00
Endorsed at least 1 sex norm belief		
Yes	2.31 (1.70, 3.16) ***	1.94 (1.19, 3.16) **
No	1.00	1.00
Age at time of survey		
13–17 years old	0.52 (0.41, 0.68) ***	0.94 (0.58, 1.54)
18–24 years old	1.00	1.00
Ever attended school		
Yes	3.44 (2.26, 5.23) ***	2.49 (1.38, 4.51) **
No	1.00	1.00
Religion		
Christian/Catholic	4.28 (3.09, 5.93) ***	1.62 (0.86, 3.08)
Islam	1.00	1.00
Ever married/cohabitating		
Yes	0.71 (0.51, 0.97) *	0.29 (0.17, 0.50) ***
No	1.00	1.00
Ethnicity		
Hausa-Fulani	0.23 (0.14, 0.39) ***	0.81 (0.38, 1.73)
Igbo/Ibo	1.34 (0.90, 2.00)	1.09 (0.61, 1.94)
Yoruba	0.95 (0.66, 1.38)	0.69 (0.38, 1.24)
Other	1.00	1.00
Worked in past week		
Yes	1.39 (1.08, 1.78) *	1.35 (0.94, 1.93)
No	1.00	1.00

*
$p < .05$

**
$p < .01$

***
$p < .0001$

1.
Adjusted model controlled for age, school attendance, religion, marital status, ethnicity, and recent employment.