



ELSEVIER

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Coerced and forced sexual initiation and its association with negative health outcomes among youth: Results from the Nigeria, Uganda, and Zambia Violence Against Children Surveys

Kimberly H. Nguyen^{a,*}, Mabel Padilla^a, Andrés Villaveces^a, Pragna Patel^b, Victor Atuchukwu^c, Dennis Onotu^c, Rose Apondi^d, George Aluzimbi^d, Peter Chipimo^e, Nzali Kancheya^e, Howard Kress^a

^a Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Atlanta, GA, USA

^b Division of Global HIV and TB, Center for Global Health, Centers for Disease Control and Prevention, Atlanta, GA, USA

^c Nigeria Country Office, Center for Global Health, Centers for Disease Control and Prevention, Abuja, Nigeria

^d Uganda Country Office, Center for Global Health, Centers for Disease Control and Prevention, Kampala, Uganda

^e Zambia Country Office, Center for Global Health, Centers for Disease Control and Prevention, Lukasa, Zambia

ARTICLE INFO

Keywords:

Sexual violence
Coerced and forced sex
Forced sexual initiation
Childhood violence
Risk-taking behaviors

ABSTRACT

Introduction: Coerced and forced sexual initiation (FSI) can have detrimental effects on children and youth. Understanding health outcomes that are associated with experiences of FSI is important for developing appropriate strategies for prevention and treatment of FSI and its consequences.

Methods: The Violence Against Children Surveys were conducted in Nigeria, Uganda, and Zambia in 2014 and 2015. We examined the prevalence of FSI and its consequences (sexual high-risk behaviors, violence experiences, mental health outcomes, and sexually transmitted infections (STI)) associated with FSI among youth aged 13–24 years in three countries in sub-Saharan Africa.

Results: Over one in ten youth aged 13–24 years who had ever had sex experienced FSI in Nigeria, Uganda, and Zambia. In multivariable logistic regression, FSI was significantly associated with infrequent condom use (OR = 1.4, 95%CI = 1.1–2.1), recent experiences of sexual violence (OR = 1.6, 95%CI: 1.1–2.3), physical violence (OR = 2.2, 95%CI: 1.6–3.0), and emotional violence (OR = 2.0, 95%CI: 1.3–2.9), moderate/serious mental distress (OR = 1.5, 95%CI: 1.1–2.0), hurting oneself (OR = 2.0, 95%CI: 1.3–3.1), and thoughts of suicide (OR = 1.5, 95%CI: 1.1–2.3), after controlling for demographic characteristics. FSI was not statistically associated with engaging in transactional sex, having multiple sex partners, or having a STI.

Conclusion: FSI is associated with infrequent condom use, recent experiences of violence and mental health outcomes among youth in sub-Saharan Africa, which may increase the risk for HIV and other consequences. Developing strategies for prevention is important for reducing the prevalence of FSI and its effects on children and youth.

* Corresponding author at: Special Studies and Prevention Initiatives Branch, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, 4770 Buford Highway, F-64, Atlanta, GA 30341, USA.

E-mail address: uxp1@cdc.gov (K.H. Nguyen).

<https://doi.org/10.1016/j.chiabu.2019.104074>

Received 17 October 2018; Received in revised form 1 July 2019; Accepted 6 July 2019
0145-2134/ Published by Elsevier Ltd.

1. Introduction

Coerced or forced sexual initiation (FSI), which is a first sexual intercourse (vaginal, oral, or anal) experience resulting from nonconsensual sex, or sex that is coerced or physically forced, can have detrimental effects on children and youth. The prevalence of FSI among females in low- and middle-income countries in Africa is between 5%–46% (Stockman, Lucea, & Campbell, 2013), while the prevalence of FSI among males in four sub-Saharan African countries is lower (4–12%) (Moore, Madise, & Awusabo-Asare, 2012). Although few studies have reported on the prevalence of FSI among male and female youth, according to a population-based survey in Nigeria, the prevalence of FSI among female and male adolescents is 18.6% (Folayan et al., 2016).

FSI is associated with various sexual high-risk behaviors, such as engaging in transactional sex, having multiple sex partners, and using condoms infrequently (Lee, Yuen Loke, Hung, & Sobel, 2018; Molitor, Ruiz, Klausner, & McFarland, 2000). Adolescents and young adults who experienced FSI were more likely than those who did not experience FSI to report no condom use at sexual debut (Pettifor, O'Brien, MacPhail, Miller, & Rees, 2009) or no condom use at last sex (Koenig et al., 2004). FSI is also associated with transactional sex (Dunkle et al., 2004b) where adolescents reporting FSI were more likely to engage in transactional sex (Folayan et al., 2016) compared with adolescents without experiences of FSI. Larger proportions of females reporting FSI had more than one sex partner in the past 12 months compared with females reporting no history of FSI (Folayan et al., 2016).

FSI is associated with sexually transmitted infections (STI) and HIV. Females with experiences of FSI were more likely than females without experiences of FSI to be diagnosed with an STI (Maharaj & Munthre, 2007) and had an elevated risk of being diagnosed with HIV if they experienced FSI before the age of 18 (Sa & Larsen, 2008). Young women who have experienced FSI are also more likely to experience subsequent sexual coercion (Erulkar, 2004) and FSI is associated with intimate partner violence (Kouyoumdjian et al., 2013). To our knowledge, previous studies have not examined how FSI influences violence experiences and mental health outcomes among male and female youth in sub-Saharan Africa.

The objective of our study is to describe the prevalence of, and factors associated with, FSI among a nationally representative sample of youth aged 13 to 24 who have ever had sex in three African countries (Nigeria, Zambia and Uganda). Previous studies are typically based on data from convenience samples of youth recruited from schools, clinics, hospitals and social service agencies and/or from specific provinces or cities within a country. Thus, the consequences of experiencing FSI in nationally representative samples of females and males are not well understood. Nigeria, Uganda, and Zambia were selected for this study because they have some of the highest rates and most recent data available for childhood violence in key PEPFAR countries (Ministry of Gender, Labour & Social Development, 2015; Ministry of Youth, Sport & Child Development, Zambia, 2018; National Population Commission of Nigeria, 2016). FSI is hypothesized to be associated with sexual high-risk behaviors, violence experiences, and negative health outcomes, which may lead to increased HIV risk. Understanding the health outcomes associated with FSI is important for developing appropriate strategies for prevention and treatment of FSI and its consequences.

2. Methods

2.1. Survey design

The Violence against Children Survey (VACS) is a nationally representative cross-sectional population-based household survey of 13- to 24-year-old females and males (Nguyen, Kress, Villaveces, & Massetti, 2018). It is designed to measure sexual, physical, and emotional violence experienced in childhood, adolescence, and young adulthood, as well as risk and protective factors and consequences of violence. This age range was selected as the target population because children younger than 13 years old do not have the maturity to answer some of the more complicated or sensitive survey questions. In addition, recall bias may undermine the accuracy of data among respondents more than 24 years old. Data for this study were collected in Nigeria (2014), Zambia (2014), and Uganda (2015) using cross-sectional household surveys that used a three stage sampling design to select 13- to 24-year-old females and males. In a three stage sampling design, 1) primary sampling units were selected from the latest population census data, which was used as the basis of the sampling frame; 2) a complete list of all households within each selected area was constructed and a sample of households was randomly selected from each list; and 3) one individual was randomly selected from each selected household for an interview. This type of design ensures that each selected survey-eligible individual can be linked to one, and only one, household in the country. A face-to-face structured questionnaire was administered by trained interviewers in a private place either inside or outside the home where the respondent could not be heard. Interviewers received extensive training on survey protocol procedures, ethical aspects of research, asking sensitive questions, and electronic data collection, and were the same sex as the respondent to increase trust (Centers for Disease Control & Prevention, 2017; Devries, Child, & Elbourne, 2015). Informed consent was given by all participants before the interview was conducted using guidelines from the World Health Organization (World Health Organization, 2001). For participants who were minors at the time of interview, permission to interview the child was obtained from a parent or guardian and assent was obtained from the child (Centers for Disease Control & Prevention, 2017). The survey was described to parents or guardians as a survey of childhood and adolescent experiences. The survey had two components: a short demographic interview with the head of household, and a comprehensive interview with the respondent covering questions about sexual, physical and emotional violence. All questions were cognitively tested to ensure validity and reliability of the survey questions (Chiang et al., 2016). The overall sample sizes and response rates were 4203 (93.7%) in Nigeria, 5804 (82.4%) in Uganda, and 1819 (80.9%) in Zambia. The study was approved by the CDC's Institutional Review Board (IRB) as well as host nation IRBs (National Health Research Ethics Committee of Nigeria, Uganda National Council for Science and Technology, and University of Zambia Biomedical Research Ethics Committee).

3. Measures

3.1. Background characteristics

Descriptive variables were the respondent's age, sex, highest education level completed, current school attendance, orphan status (whether one or both parents were deceased prior to age 18 years), marital or cohabitation status (ever being married or living with a partner), and sex activity (ever experienced vaginal, oral, or anal sex).

3.2. Forced sexual initiation

FSI was determined from the following question, "The first time you had sex, was it because you wanted to or because you were forced to?" which was derived from similar questions in the literature (Stockman et al., 2013). Respondents who stated that they were forced to have sex the first time they had sex were categorized as having experienced FSI. We narrowed our definition of FSI further to include only respondents whose first experience of FSI occurred more than one year prior to the survey to separate FSI from other violence experiences occurring within one year of the survey. This was done by calculating the difference between the respondent's current age and the age when they first had sex; if the difference was greater than one year, and their first sex was forced, they were categorized as having FSI greater than one year before the survey. Respondents who experienced FSI within 12 months of the survey were excluded from the analyses to reduce potential for bias (Nigeria, n = 60; Uganda, n = 72; Zambia, n = 16).

3.3. Sexual high-risk behaviors

Sexual high-risk behaviors include engaging in transactional sex, having multiple sex partners, and using condoms infrequently. In Nigeria and Zambia, transactional sex was defined as having sex with someone in exchange for food, favors or gifts. In Uganda, the question on transactional sex was changed to improve data quality and accuracy. Transactional sex was defined as having sex with someone because the person provided material support or help in any other way (e.g., help paying for things or being given gifts such as food, school fees or money). In all three countries, having multiple sex partners was determined by asking respondents how many sexual partners they had in the past 12 months. Infrequent condom use was measured by asking how often respondents used a condom with their most recent sexual partner in the past 12 months. Respondents who stated that they used a condom sometimes or never in the past 12 months were categorized as infrequent condom users.

3.4. Experiences of violence

Respondents were asked a series of questions on sexual, physical, and emotional violence that were consistent with global definitions of childhood violence (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). Sexual violence was defined as any experience of (a) unwanted sexual touching (e.g., touching in a sexual way, kissing, grabbing or fondling); (b) attempted unwanted sexual intercourse (perpetrator attempted intercourse but penetration did not occur); (c) pressured intercourse (unwanted sex was completed through use of threats or non-physical pressure); or (d) physically forced sex (unwanted intercourse completed through physical force) in their lifetime. Physical violence was defined as any experience of being slapped, pushed, hit with a fist, kicked, or whipped, or threatened with a weapon such as a gun or knife by any perpetrator. Emotional violence was defined as any experience of being ridiculed and being made to feel unwanted or unloved by a parent or caregiver. Respondents who experienced any of these types of violence in the past 12 months were categorized as having recently experienced sexual, physical, or emotional violence.

3.5. Health outcomes

Measured health outcomes included mental distress and STIs. Mental distress in the past 30 days was measured using the Kessler Psychological Distress Scale, which consisted of six questions that assess a person's general emotional state during a defined time period (Prochaska, Sung, Max, Shi, & Ong, 2012). These questions ask how often the respondent has felt 1) nervous, 2) hopeless, 3) restless, 4) so sad that nothing could cheer him/her up, 5) that everything was an effort, and 6) worthless in the past 30 days. Each question response was given a possible score between 0 (none of the time) and 4 (all of the time) and question responses were summed for a total possible score between 0 and 24. Consistent with other studies using the Kessler Psychological Distress Scale, respondents with scores between 5 and 12 points were categorized as having moderate mental distress and respondents with scores of 13 points or higher were categorized as having serious mental distress (Kessler et al., 2002; Pratt, Dey, & Cohen, 2007; Prochaska et al., 2012). Those who scored moderate or serious were grouped into a moderate/serious mental distress category. Respondents were also asked if they have ever hurt themselves ("Have you ever intentionally hurt yourself in any way?"), and whether they have ever thought about suicide ("Have you ever thought about killing yourself?"). Finally, respondents were asked if they had ever been diagnosed with an STI ("Have you ever been diagnosed with a sexually transmitted infection?").

4. Data analysis

Analyses were conducted on youth aged 13 to 24 years in Nigeria, Uganda, and Zambia. Descriptive analyses examined demographic characteristics, prevalence of sexual activity and FSI by country. In addition, prevalence of sexual high-risk behaviors, recent

Table 1
Background characteristics of youth ages 13–24, Nigeria, Uganda, Zambia Violence Against Children Surveys.

	Nigeria (n = 4203)		Uganda (n = 5804)		Zambia (n = 1819)		p-value
	Percent	95% CI	Percent	95% CI	Percent	95% CI	
Age							
13-17	43.1	41.0-45.2	46.4	44.0-48.7	45.5	42.8-48.2	0.04
18-24	56.9	54.8-59.0	53.6	51.3-56.0	54.5	51.8-57.2	
Sex							
Female	50.8	44.7-56.8	52.6	47.5-57.8	50.8	43.7-58.0	0.87
Male	49.2	43.2-55.3	47.4	42.2-52.5	49.2	42.0-56.3	
Highest education completed							
Less than primary	19.7	16.3-23.1	7.0	5.7-8.4	7.2	5.7-8.7	< 0.01
Primary	14.9	13.2-16.6	61.5	58.6-64.5	43.1	39.8-46.3	
Secondary or higher	65.4	61.8-69.0	31.4	28.3-34.6	49.8	46.3-53.3	
Current school attendance							
Yes	58.8	56.3-61.4	47.5	45.2-49.9	53.0	49.7-56.2	< 0.01
No	41.1	38.6-43.7	52.5	50.1-54.8	47.0	43.8-50.3	
Orphan prior to age 18 ^a							
Yes	15.7	14.2-17.3	24.0	21.9-26.1	28.8	25.5-32.2	< 0.01
No	84.3	82.7-85.8	76.0	73.9-78.1	71.2	67.8-74.5	
Married or cohabitated ^b							
Yes	25.0	22.4	33.5	31.2-35.7	26.0	22.3-28.8	< 0.01
No	75.0	72.3-77.6	66.5	64.3-68.8	74.0	71.2-76.7	
Ever had sex ^c							
Yes	47.3	44.8-49.8	54.4	52.2-56.5	54.6	51.7-57.8	< 0.01
No	52.7	50.2-55.2	45.6	43.5-47.8	45.4	42.5-48.3	
Ever experienced coerced or forced sexual initiation – All youth ^d							
Yes	14.0	11.2-16.8	10.7	8.7-12.7	16.0	12.8-19.1	0.04
No	86.0	83.2-88.8	89.3	87.3-91.3	84.0	80.9-87.2	
Ever experienced coerced or forced sexual initiation – Females							
Yes	20.5	16.4-24.6	15.2	11.9-18.5	25.7	21.1-30.3	< 0.01
No	79.5	75.4-83.6	84.8	81.5-88.1	74.3	69.7-78.9	
Ever experienced coerced or forced sexual initiation – Males							
Yes	5.5	3.5-7.5	4.5	3.3-5.6	5.0	2.8-7.2	< 0.01
No	94.5	92.4-96.5	95.5	94.4-96.7	95.0	92.8-97.2	

Abbreviations: CI = Confidence Interval.

^a Defined as having one or both parents deceased before the age of 18.

^b Defined as ever being married or living with a partner.

^c Defined as ever experiencing vaginal, oral, or anal sex.

^d Defined as being coerced or forced to have sex at first sexual encounter, among those who ever had sex.

experiences of violence, and health outcomes by experience of FSI were determined for sexually active youth in each country. For all variables, less than 2% of the data were missing. Missing data were assumed to be missing completely at random and were omitted from the analyses. Chi-squared tests were conducted to determine whether FSI was significantly associated with sexual high-risk behaviors, recent experiences of violence, and health outcomes at the $p < 0.05$ level. Separate multivariable logistic regression models were conducted to determine the effect of FSI on sexual high-risk behaviors, recent experiences of violence, and health outcomes, while controlling for country, age, sex, educational status, current school attendance, orphan status, and marital or cohabitation status among sexually active youth. Analyses were performed in SAS 9.3 (SAS Institute Inc., Cary, North Carolina, USA) using SAS SURVEYFREQ and SURVEYLOGISTIC procedures and the STRATA and CLUSTER commands to account for within-country clustering, weighting, and non-response (Nguyen, Kress, Villaveces et al., 2018). Variables used in the weighting methodology included age, gender, and region. Final weights were conducted for each country accounting for non-response and post-stratification adjustment to the population distribution. Final sample weights were calculated by 1) determining base weights to account for all steps of random selection that led to the sample of population members, 2) adjusting for nonresponse, and 3) further adjusting to calibrate the final set of adjusted weights to the distribution of the population (See supplement for detailed weighting methodology).

5. Results

Respondents differed significantly by age, educational status, current school attendance, orphan status, marital or cohabitation status, and sexual activity by country (Table 1). The percentages of youth aged 13–17 years and those who were married or cohabitated were higher in Uganda than in Nigeria or Zambia. In Nigeria, higher percentages of youth completed secondary school or higher or were currently attending school compared with youth in Uganda and Zambia. Zambia had the highest percentages of youth who became orphans prior to age 18, youth who had ever had sex, and youth who had experienced FSI compared with Nigeria and Uganda. Among the three countries, females in Zambia had the highest prevalence of FSI (25.7%) while males in Nigeria had the highest prevalence of FSI (5.5%). There were similar proportions of males and females in each of the three countries.

In bivariate analyses, FSI was significantly associated with transactional sex, recent experiences of violence, mental distress,

Table 2
Prevalence of sexual high-risk behaviors, violence experience, and health outcomes among youth aged 13–24 years who have ever had sex, by experience of forced sexual initiation, Nigeria, Uganda, Zambia, Violence Against Children Surveys.

	Nigeria			Uganda			Zambia		
	FSI (n = 214) (95% CI)	No FSI (n = 1587) Percent (95% CI)	p-value	FSI (n = 332) (95% CI)	No FSI (n = 2713) Percent (95% CI)	p-value	FSI (n = 151) (95% CI)	No FSI (n = 817) Percent (95% CI)	p-value
Sexual high-risk behaviors									
Transactional sex in past 12 months	3.2 (0.7-5.7)	2.3 (1.4-3.3)	0.48	12.6 (6.3-18.8)	11.4 (8.8-13.9)	0.73	7.1 (1.6-12.5)	2.7 (0.7-4.7)	0.02
Multiple Sex Partners in the past 12 months	10.8 (4.2-17.4)	12.4 (9.6-15.1)	0.67	12.3 (6.6-18.1)	17.4 (14.9-19.8)	0.15	7.4 (0.1-14.8)	17.0 (13.0-21.1)	0.05
Infrequent condom Use in past 12 months	38.5 (25.4-51.6)	33.9 (39.9-37.9)	0.47	39.9 (29.2-50.5)	46.5 (42.9-50.2)	0.22	41.8 (30.0-53.5)	41.1 (36.5-45.7)	0.91
Violence experienced in past 12 months									
Sexual Violence	20.8 (14.2-27.4)	12.7 (10.6-14.8)	0.01	31.9 (23.8-40.1)	20.0 (17.7-22.2)	< 0.01	25.8 (16.9-34.8)	10.2 (7.4-12.9)	< 0.01
Physical violence	31.8 (23.3-40.3)	16.4 (14.1-18.7)	< 0.01	39.5 (30.7-48.2)	24.8 (22.0-27.5)	< 0.01	20.4 (13.0-27.7)	18.7 (15.4-21.9)	0.67
Emotional violence	20.7 (13.5-27.8)	11.4 (9.2-13.6)	< 0.01	21.0 (13.0-29.0)	14.3 (12.2-16.4)	0.08	16.7 (10.2-23.2)	9.4 (6.7-12.1)	0.02
Health outcomes									
Moderate/serious mental distress	42.4 (33.1-51.8)	34.4 (30.8-38.0)	0.09	63.1 (54.0-72.2)	44.8 (41.7-47.9)	< 0.01	61.6 (52.3-70.8)	38.4 (32.6-44.3)	< 0.01
Ever hurt oneself	13.8 (7.8-19.8)	5.5 (4.2-6.9)	< 0.01	13.3 (7.0-19.6)	7.4 (5.9-8.9)	0.03	20.9 (12.7-29.2)	8.8 (4.9-12.7)	< 0.01
Ever thought of suicide	10.0 (5.4-14.7)	4.7 (3.3-6.1)	< 0.01	23.8 (15.5-32.0)	10.8 (8.8-12.8)	< 0.01	19.6 (11.9-27.3)	13.6 (9.2-18.1)	0.18
STI	13.0 (7.5-18.5)	9.2 (7.4-11.0)	0.15	28.0 (21.0-35.1)	24.8 (21.9-27.6)	0.38	15.5 (8.7-22.3)	8.1 (5.4-10.8)	0.01

Abbreviations: FSI = Coerced/forced sexual initiation; CI = Confidence interval; STI = sexually transmitted infections.

Table 3

Coerced or forced sexual initiation and its association with sexual high-risk behaviors among youth aged 13–24 who have ever had sex. Nigeria, Uganda, Zambia, Violence Against Children Surveys.

	Transactional sex in past 12 months aOR (95% CI)	Multiple Sex Partners in the past 12 months aOR (95% CI)	Infrequent condom Use in past 12 months aOR (95% CI)
FSI ^a			
Yes	1.1 (0.6-2.1)	1.6 (0.9-2.9)	1.4 (1.1-2.1)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Country			
Nigeria	0.5 (0.2-1.2)	1.0 (0.3-3.0)	1.0 (0.7-1.6)
Uganda	2.9 (1.3-6.4)	1.6 (0.6-4.8)	1.8 (1.2-2.7)
Zambia	1.0 (ref)	1.0 (ref)	1.0 (ref)
Age	1.0 (0.9-1.0)	1.1 (1.0-1.1)	0.9 (0.8-0.9)
Sex			
Female	1.6 (1.0-2.6)	0.2 (0.1-0.3)	0.8 (0.6-1.1)
Male	1.0 (ref)	1.0 (ref)	1.0 (ref)
Highest education completed			
Less than primary	0.5 (0.2-1.2)	1.6 (0.5-5.6)	0.7 (0.3-1.7)
Primary	0.8 (0.5-1.2)	1.1 (0.7-1.7)	0.9 (0.7-1.2)
Secondary or higher	1.0 (ref)	1.0 (ref)	1.0 (ref)
Current school attendance			
Yes	0.9 (0.5-1.8)	0.9 (0.6-1.3)	0.8 (0.6-1.2)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Orphan prior to age 18 ^b			
Yes	1.3 (0.9-2.0)	0.8 (0.6-1.2)	1.1 (0.9-1.4)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Married or cohabitated ^c			
Yes	1.5 (0.8-2.8)	2.1 (1.4-3.2)	3.5 (2.6-4.7)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)

Note: Estimated ORs shown in bold are statistically significant at $p < 0.05$.

Abbreviations: aOR = Adjusted Odds Ratio, CI = Confidence Interval.

^a Defined as being coerced or forced to have sex at first sexual encounter, among those who ever had sex.

^b Defined as having one or both parents deceased before the age of 18.

^c Defined as ever being married or living with a partner.

hurting oneself, thoughts of suicide, and STI in one or more countries ($p < 0.05$) (Table 2). In all three countries, the prevalence of recent sexual violence and hurting oneself was significantly higher among youth who experienced FSI than youth who did not experience FSI. In Nigeria, the prevalence of recent physical and emotional violence, and thoughts of suicide were higher among youth who experienced FSI than youth who did not experience FSI. In Uganda, the prevalence of recent physical violence, moderate/serious mental distress, and thoughts of suicide was higher among youth who experienced FSI than youth who did not experience FSI. Finally, in Zambia, youth who experienced FSI had a higher prevalence of transactional sex, recent emotional violence, moderate/serious mental distress, and STI than youth who did not experience FSI. Multiple sex partners and infrequent condom use in the past 12 months were not significantly associated with FSI in any of the three countries studied.

In multivariable logistic regression analyses, FSI was significantly associated with some sexual high-risk behaviors, recent experiences of all types of violence, and mental health outcomes, after adjusting for country, age, sex, educational level, current school attendance, orphan status, and marital or cohabitation status (Tables 3–5). Youth who experienced FSI had higher odds (OR = 1.4, 95%CI = 1.1–2.1) of infrequent condom use in the past 12 months than youth who did not experience FSI (Table 3). In addition, youth who experienced FSI had increased odds of experiencing recent sexual violence (OR = 1.6, 95%CI: 1.1–2.3), physical violence (OR = 2.2, 95%CI: 1.6–3.0), and emotional violence (OR = 2.0, 95%CI: 1.3–2.9) than youth who did not experience FSI (Table 4). Finally, youth who experienced FSI had statistically higher odds of moderate/serious mental distress (OR = 1.5, 95%CI: 1.1–2.0), hurting oneself (OR = 2.0, 95%CI: 1.3–3.1), and thoughts of suicide (OR = 1.5, 95%CI: 1.1–2.3) (Table 5). FSI was not statistically associated with engaging in transactional sex, having multiple sex partners, or having an STI.

6. Discussion

Our study examined the prevalence of FSI in three African nations and its association with recent sexual high-risk behaviors, experiences of violence, and health outcomes among youth aged 13–24 years old. We found that FSI occurred in more than one out of ten youth who have ever had sex in Nigeria, Uganda, and Zambia. The prevalence estimate of FSI in Nigeria (14.0%) is lower than previously reported estimates of sexually active youth aged 10–19 (18.6%) (Folayan et al., 2016). However, the study in Nigeria differ from ours in methodology; thus, they are not comparable. To our knowledge, the prevalence estimate of FSI in Uganda (10.7%) and Zambia (16%) are the first reported prevalence estimates among male and female youth in these countries. Our study also found higher prevalence of FSI among females (15%–26%) than males (5%–6%) in all three countries, which is similar to prior studies in Uganda in which the prevalence of FSI is between 14–18% among females and 4% among males (Kouyoumdjian et al., 2013; Moore et al., 2012; Stockman et al., 2013).

Table 4

Coerced or forced sexual initiation and its association with recent experiences of violence among youth aged 13–24 who have ever had sex. Nigeria, Uganda, Zambia, Violence Against Children Surveys.

	Sexual violence ^a	Physical violence ^a	Emotional violence ^a
	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)
FSI ^b			
Yes	1.6 (1.1-2.3)	2.2 (1.6-3.0)	2.0 (1.3-2.9)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Country			
Nigeria	1.4 (0.9-2.2)	1.2 (0.8-1.7)	1.3 (0.8-2.3)
Uganda	2.7 (1.8-4.1)	1.6 (1.1-2.4)	1.6 (0.9-2.6)
Zambia	1.0 (ref)	1.0 (ref)	1.0 (ref)
Age	0.9 (0.8-0.9)	0.9 (0.8-0.9)	0.9 (0.8-0.9)
Sex			
Female	1.2 (0.9-1.6)	0.8 (0.6-1.0)	0.7 (0.5-1.1)
Male	1.0 (ref)	1.0 (ref)	1.0 (ref)
Highest education completed			
Less than primary	0.6 (0.3-1.3)	0.6 (0.3-1.2)	0.7 (0.3-1.5)
Primary	0.6 (0.5-0.8)	1.0 (0.8-1.3)	1.0 (0.7-1.4)
Secondary or higher	1.0 (ref)	1.0 (ref)	1.0 (ref)
Current school attendance			
Yes	1.4 (1.1-1.9)	1.5 (1.1-2.0)	1.1 (0.8-1.5)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Orphan prior to age 18 ^c			
Yes	0.9 (0.7-1.2)	1.2 (0.9-1.6)	1.1 (0.8-1.5)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)
Married or cohabitated ^d			
Yes	1.4 (1.1-2.0)	1.1 (0.8-1.5)	1.9 (1.4-2.7)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)

Note: Estimated ORs shown in bold are statistically significant at $p < 0.05$.

Abbreviations: aOR = Adjusted Odds Ratio, CI = Confidence Interval.

^a Experienced violence in the past 12 months.

^b Defined as being coerced or forced to have sex at first sexual encounter, among those who ever had sex.

^c Defined as having one or both parents deceased before the age of 18.

^d Defined as ever being married or living with a partner.

Our study showed that FSI is associated with infrequent condom use, recent experiences of sexual, physical, and emotional violence, moderate/serious mental distress, hurting oneself, and thoughts of suicide. Studies have found that experiencing FSI increases the risk of HIV acquisition through an increase in sexual high-risk behaviors such as infrequent condom use (Campbell, Lucea, Stockman, & Draughon, 2013; Maman, Campbell, Sweat & Gielen, 2000). Furthermore, our finding that FSI is associated with increased odds of experiencing sexual, physical and emotional violence in the past 12 months is consistent with previous studies showing that FSI is associated with subsequent experiences of intimate partner violence among females (Campbell et al., 2013) and demonstrates that FSI is also associated with emotional and/or physical violence.

FSI may lead to negative mental health outcomes and suicide attempts as well (Devries et al., 2011; World Health Organization, 2013). Studies have found that sexual violence, alone or in conjunction with other types of violence, may lead to negative mental health outcomes (Nguyen, Kegler, Chiang, & Kress, 2019) through individual, community, and society level factors (Campbell, Dworkin, & Cabral, 2009). For example, survivors of sexual violence may experience feelings of shame and guilt, which may prevent disclosure of sexual violence and receipt of appropriate medical care (Nguyen, Kress, Atuchukwu et al., 2018). In addition, community and societal perceptions of violence, such as stigma or normalization, affect survivor's willingness to disclose and may contribute to worse mental health outcomes (Nguyen, Kress, Atuchukwu, et al., 2018). Other studies have found that severe mental illness may lead to sexual and drug use risk behaviours that increase the risk of HIV (Meade & Sikkema, 2005). Understanding the pathways through which FSI is associated with experiences of violence, mental health outcomes, and sexual high-risk behaviors is critical for preventing negative health consequences and HIV risk.

FSI was found to be significantly associated with infrequent condom use but not with transactional sex, multiple sex partners, and STIs. A possible explanation may be mode effects and social desirability bias. Because these are sensitive questions asked through an interviewer-assisted questionnaire, respondents may be more inclined to provide a socially desirable response. This response bias could lead to null findings as found in this study. Additional studies that use different modes of collecting sensitive data may add further insight into the relationship between FSI and certain health outcomes.

Although FSI is prominent in low- and middle-income countries and may be associated with increased HIV risk, there are very few research studies and HIV prevention programs focused on FSI (Stockman et al., 2013). A global effort to prevent FSI and provide care for survivors of FSI is needed. This study attempts to understand the association between FSI and HIV risk among youth in three large countries in Sub-Saharan Africa. Further studies are needed to understand the entire context of FSI, including perpetrators, settings, chronology, and other health outcomes such as HIV or pregnancy to tailor appropriate prevention and treatment programs for children and youth.

Table 5

Coerced or forced sexual initiation and its association with health outcomes among youth aged 13–24 who have ever had sex. Nigeria, Uganda, Zambia, Violence Against Children Surveys.

	Moderate/serious mental distress ^a	Ever hurt oneself	Ever thought of suicide	STI
	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)	aOR (95% CI)
FSI ^b				
Yes	1.5 (1.1-2.0)	2.0 (1.3-3.1)	1.5 (1.1-2.3)	1.3 (0.9-2.0)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Country				
Nigeria	0.8 (0.6-1.1)	0.7 (0.4-1.1)	0.6 (0.4-0.9)	1.4 (0.9-2.1)
Uganda	1.2 (0.9-1.6)	0.9 (0.6-1.4)	1.1 (0.7-1.6)	3.9 (2.6-5.8)
Zambia	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Age	1.0 (1.0-1.1)	1.0 (0.9-1.0)	1.0 (0.9-1.1)	1.0 (0.9-1.0)
Sex				
Female	1.2 (0.9-1.5)	1.0 (0.7-1.5)	2.4 (1.6-3.7)	1.8 (1.3-2.4)
Male	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Highest education completed				
Less than primary	1.2 (0.6-2.6)	0.7 (0.3-1.9)	1.4 (0.6-3.1)	0.6 (0.3-1.2)
Primary	1.4 (1.1-1.7)	0.7 (0.5-1.0)	1.1 (0.8-1.7)	0.9 (0.7-1.4)
Secondary or higher	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Current school attendance				
Yes	1.0 (0.8-1.3)	0.8 (0.5-1.2)	0.7 (0.5-1.2)	1.3 (0.8-1.9)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Orphan prior to age 18 ^c				
Yes	1.1 (0.9-1.3)	1.5 (1.1-2.2)	1.7 (1.2-2.3)	1.2 (0.9-1.6)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)
Married or cohabitated ^d				
Yes	1.1 (0.9-1.4)	0.9 (0.6-1.3)	1.2 (0.8-1.8)	1.0 (0.7-1.4)
No	1.0 (ref)	1.0 (ref)	1.0 (ref)	1.0 (ref)

Note: Estimated ORs shown in bold are statistically significant at $p < 0.05$.

Abbreviations: aOR = Adjusted Odds Ratio, CI = Confidence Interval.

^a Experienced moderate or serious mental distress in the past 30 days.

^b Defined as being coerced or forced to have sex at first sexual encounter, among those who ever had sex.

^c Defined as having one or both parents deceased before the age of 18.

^d Defined as ever being married or living with a partner.

This study is subject to some limitations. First, as a household survey, VACS does not include data on children living outside of family care (such as homeless or institutionalized children) who may be most vulnerable to violence victimization. Children living outside of family care were excluded from the VACS because: 1) they comprise a very small percentage of the population and would not significantly affect the national estimates, 2) they may have mental or physical disabilities that may limit their ability to provide consent or understand questions asked in the VACS, and 3) institutions were not on the sampling frames used to draw households. Second, the VACS is a cross-sectional study, so causality cannot be determined. Third, the question on transactional sex changed slightly among the Nigeria, Zambia and Uganda questionnaires. In Nigeria and Zambia (2014), the question on transactional sex may have been misconstrued as prostitution by respondents and resulted in very low prevalence of transactional sex; however, when the question was revised in 2015 with input from researchers in the field, the prevalence of transactional sex in Uganda was higher than rates found in previous VACS and is consistent with those from other studies (Dunkle et al., 2004a). Fourth, due to low sample sizes, FSI could not be analyzed by sub-categories, such as age or sex, to fully understand the context in which FSI occurs. Fifth, potential confounders that were not included in the multivariable models due to missing or unavailable data, such as substance use, could have biased the results. Sixth, analyses were limited to sexually active youth; thus, they may differ from those who have never had sex. Results may not be generalizable to those who had never had sex. Last, because experiences of violence were collected through an interviewer-administered questionnaire, prevalence of sexual violence may be underestimated (Ward, Artz, Leoschut, Kassanjee, & Burton, 2018). The survey relied on retrospective self-reports of violence, which may be affected by recall bias, social desirability bias, fear of disclosure, or cultural factors. Due to these factors, self-reported experiences of FSI may be underestimated, so the true prevalence and effect of FSI may be greater than what is presented in this study (Fergusson, Horwood, & Woodward, 2000; Hardt & Rutter, 2004).

Steps are needed to develop more comprehensive HIV and violence prevention programs which may prevent the cycle of violence, HIV risk behaviors and HIV/STI infection. Voluntary HIV counseling and testing may also help address violence and HIV among children and youth living with or at risk for HIV infection (Denison, O'Reilly, Schmid, Kennedy, & Sweat, 2008; Sweat et al., 2000). Violence against children and youth is contributing to the AIDS epidemic and has prompted organizations such as UNICEF, UNAIDS, WHO, and CDC to call for a global commitment to develop strategies and programs to prevent violence.

The WHO and the CDC, along with other global partners, have developed a package of seven evidence-based strategies, called INSPIRE, that provide a framework for ending violence against children (World Health Organization, 2016). Some of these strategies include empowering children and youth with information, skills and support networks, educating and mobilizing parents and community members, enhancing the accessibility of schooling, offering economic support and incentives, and fostering an enabling legal and policy framework (World Health Organization, 2016). Consistent with the INSPIRE strategies, several programs and policies

have been implemented to prevent violence against children and youth, as well as support those who have been affected by violence. For example, the Parents/Families Matter! Program promotes positive relationships and effective communication between parents and children around issues such as sex, sexual risk reduction, HIV prevention, and physical, emotional and sexual abuse (United National Office on Drugs & Crime, 2017). In addition, the “No Means No” IMpower program empowers adolescent girls by improving their self-esteem and teaching them self-defense to reduce their risk of sexual violence (Sarnquist et al., 2014). These programs suggest that implementing evidence-based strategies are effective in changing local and national norms that contribute to the perpetration of sexual violence and increasing empowerment for children and youth.

Violence against children and youth has devastating consequences not only on the child, but also on families, communities, and society. Sexual violence, particularly when the first sexual encounter is violent, may lead to detrimental effects in later years. This is the first study to show that FSI is significantly associated with experiences of violence and moderate/serious mental distress in a nationally representative sample of youth in Nigeria, Uganda, and Zambia. This study illustrates an association between FSI and subsequent sexual high-risk behaviors, violence experiences, and negative mental health outcomes, which may contribute to the increased rates of HIV in these African nations. The inclusion of HIV biomarkers in the VACS could also help countries improve their understanding of the relationship between violence and HIV risk. Reducing and preventing FSI requires knowledge of cultural norms that contribute to violence against children and youth, as well as evidence-based methods to change norms and behaviors. Preventative strategies such as increasing formal education, changing cultural norms, strengthening income and economic stability, and providing resources and support, empower children and youth and reduce their risk of violence, sexual high-risk behaviors, and negative health outcomes. Ending the cycle of violence and HIV requires a collective effort from the community and society, and has the potential to impact the health and well-being of all children and youth.

Financial disclosure

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Disclaimer

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.chiabu.2019.104074>.

References

- Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence & Abuse, 10*(3), 225–246.
- Campbell, J. C., Lucea, M. B., Stockman, J. K., & Draughon, J. E. (2013). Forced sex and HIV risk in violent relationships. *American Journal of Reproductive Immunology, 69*(s1), 41–44.
- Centers for Disease Control and Prevention (2017). *Critical elements of interviewer training for engaging children and adolescents in global violence research: Best practices and lessons learned from the violence against children survey [Internet]*. Atlanta, Georgia. Available from:<https://www.cdc.gov/violenceprevention/pdf/vacs/VACS-trainingwhitepaper.pdf>.
- Chiang, L. F., Kress, H., Sumner, S. A., Gleckel, J., Kawemama, P., & Gordon, R. N. (2016). Violence Against Children Surveys (VACS): Towards a global surveillance system. *Injury Prevention, 22*(Suppl 1), i17–i22.
- Denison, J. A., O'Reilly, K. R., Schmid, G. P., Kennedy, C. E., & Sweat, M. D. (2008). HIV voluntary counseling and testing and behavioral risk reduction in developing countries: A meta-analysis, 1990–2005. *AIDS and Behavior, 12*(3), 363–373.
- Devries, K. M., Child, J. C., Elbourne, D., et al. (2015). “I never expected that it would happen, coming to ask me such questions”: Ethical aspects of asking children about violence in resource poor settings. *Trials, 11*(16), 516.
- Devries, K., Watts, C., Yoshihama, M., Kiss, L., Schraiber, L. B., Deyessa, N., Heise, L., Durand, J., Mbwapo, J., Jansen, H., & Berhane, Y. (2011). WHO Multi-Country Study Team: Violence against women is strongly associated with suicide attempts: Evidence from the WHO multi-country study on women's health and domestic violence against women. *Soc Sci Med, 73*(1), 79–86.
- Dunkle, K. L., Jewkes, R. K., Brown, H. C., Gray, G. E., McIntyre, J. A., & Harlow, S. D. (2004b). Transactional sex among women in Soweto, South Africa: Prevalence, risk factors and association with HIV infection. *Social Science & Medicine, 59*(8), 1581–1592.
- Dunkle, K. L., Jewkes, R. K., Brown, H. C., Gray, G. E., McIntyre, J. A., & Harlow, S. D. (2004a). Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. *Lancet, 363*(9419), 1415–1421.
- Erukhar, A. S. (2004). The experience of sexual coercion among young people in Kenya. *International Family Planning Perspectives, 30*(4), 182–189.
- Fergusson, D. M., Horwood, L. J., & Woodward, L. J. (2000). The stability of child abuse reports: a longitudinal study of the reporting behaviour of young adults. *Psychological medicine, 30*(3), 529–544.
- Folayan, M. O., Harrison, A., Brown, B., Odetoyinbo, M., Stockman, J. K., Ajuwon, A. J., ... Caceres, C. F. (2016). Associations between forced sexual initiation, HIV status, sexual risk behavior, life stressors, and coping strategies among adolescents in Nigeria. *PLoS One, 11*(5), e0155210.
- Hardt, J., & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: Review of the evidence. *Journal of Child Psychology and Psychiatry, 45*(2), 260–273.
- Kessler Ronald, C., Andrews, G., Lisa Colpe, J., Hiripi, E., Daniel Mroczek, K., Normand, S.-L. T., Ellen Walters, E., & Alan Zaslavsky, M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological medicine, 32*(6), 959–976.
- Koenig, M. A., Zablotska, I., Lutalo, T., Nalugoda, F., Wagman, J., & Gray, R. (2004). Coerced first intercourse and reproductive health among adolescent women in Rakai, Uganda. *International Family Planning Perspectives, 30*(4), 156–163.
- Kouyoumdjian, F. G., Calzavara, L. M., Bondy, S. J., O'Campo, P., Serwadda, D., Nalugoda, F., ... Gray, R. (2013). Risk factors for intimate partner violence in women in

- the Rakai Community Cohort Study, Uganda from 2000 to 2009. *BMC Public Health*, 13, 566.
- Lee, R. L. T., Yuen Loke, A., Hung, T. T. M., & Sobel, H. (2018). A systematic review on identifying risk factors associated with early sexual debut and coerced sex among adolescents and young people in communities. *Journal of Clinical Nursing*, 27(3–4), 478–501.
- Leeb, R. T., Paulozzi, L., Melanson, C., Simon, T., & Arias, I. (2008). *Child Maltreatment surveillance: Uniform definitions for public health and recommended data elements, version 1.0*. Available from Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. https://www.cdc.gov/violenceprevention/pdf/CM_Surveillance-a.pdf.
- Maharaj, P., & Munthre, C. (2007). Coerced first sexual intercourse and selected reproductive health outcomes among young women in KwaZulu-Natal, South Africa. *Journal of Biosocial Science*, 39(2), 231–244.
- Maman, S., Campbell, J., Sweat, M. D., & Gielen, A. C. (2000). The intersections of HIV and violence: directions for future research and interventions. *Social Science & Medicine*, 50(4), 459–478.
- Meade, C. S., & Sikkema, K. J. (2005). HIV risk behavior among adults with severe mental illness: A systematic review. *Clinical Psychology Review*, 25(4), 433–457.
- Ministry of Gender, Labour and Social Development (2015). *Violence against children in Uganda: Findings from a national survey*. Kampala, Uganda: UNICEF.
- Ministry of Youth, Sport and Child Development, Ministry of Community Development and Social Services, University of Zambia, United Nations Children's Fund, Save the Children International, United States Centers for Disease Control and Prevention, Violence against Children in Zambia: Findings from a national survey, 2014, Ministry of Youth, Sport and Child Development, Lusaka (2018).
- Molitor, F., Ruiz, J. D., Klausner, J. D., & McFarland, W. (2000). History of forced sex in association with drug use and sexual HIV risk behaviors, infection with STDs, and diagnostic medical care: Results from the Young Women Survey. *Journal of Interpersonal Violence*, 15(3), 262–278.
- Moore, A. M., Madise, N., & Awusabo-Asare, K. (2012). Unwanted sexual experiences among young men in four sub-Saharan African countries: Prevalence and context. *Culture, Health & Sexuality*, 14(9), 1021–1035.
- National Population Commission of Nigeria, UNICEF Nigeria, and the U.S. Centers for Disease Control and Prevention (2016). *Violence against children in Nigeria: Findings from a national survey, 2014*. Abuja, Nigeria: UNICEF.
- Nguyen, K. H., Kegler, S., Chiang, L., & Kress, H. (2019). Collective effect of sexual, physical and emotional violence before age 18 on health outcomes in young adults in Kenya. *Violence and Victims*, 34(2), 229–242. <https://doi.org/10.1891/0886-6708.VV-D-17-00182>.
- Nguyen, K. H., Kress, H., Villaveces, A., & Massetti, G. (2018). Sampling design and methodology of the global violence against children surveys. *Injury Prevention*. <https://doi.org/10.1136/injuryprev-2018-042916>.
- Nguyen, K. H., Kress, H., Atuchukwu, V., Onotu, D., Swaminathan, M., Ogbanufe, O., Msungama, W., & Sumner, S. A. (2018). Disclosure of sexual violence among girls and young women aged 13 to 24 years: Results from the Violence against Children Surveys in Nigeria and Malawi. *Journal of Interpersonal Violence*. <https://doi.org/10.1177/0886260518757225>.
- Pettifor, A., O'Brien, K., MacPhail, C., Miller, W. C., & Rees, H. (2009). Early coital debut and associated HIV risk factors among young women and men in South Africa. *International Perspectives on Sexual and Reproductive Health*, 82–90.
- Pratt, L. A., Dey, A. N., & Cohen, A. J. (2007). *Characteristics of adults with serious psychological distress as measured by the K6 scale*. United States: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics 2001–2004.
- Prochaska, J. J., Sung, H. Y., Max, W., Shi, Y., & Ong, M. (2012). Validity study of the K6 scale as a measure of moderate mental distress based on mental health treatment need and utilization. *International Journal of Methods in Psychiatric Research*, 21(2), 88–97.
- Sa, Z., & Larsen, U. (2008). Gender inequality increases women's risk of HIV infection in Moshi, Tanzania. *Journal of Biosocial Science*, 40(4), 505–525.
- Sarnquist, C., Omondi, B., Sinclair, J., Gitau, C., Paiva, L., Mulinge, M., ... Maldonado, Y. (2014). Rape prevention through empowerment of adolescent girls. *Pediatrics*, 133(5), <https://doi.org/10.1542/peds.2013-3414d>.
- Stockman, J. K., Lucea, M. B., & Campbell, J. C. (2013). Forced sexual initiation, sexual intimate partner violence and HIV risk in women: A global review of the literature. *AIDS and Behavior*, 17(3), 832–847.
- Sweat, M., Gregorich, S., Sangiwa, G., Furlonge, C., Balmer, D., Kamenga, C., Grinstead, O., & Coates, T. (2000). Cost-effectiveness of voluntary HIV-1 counselling and testing in reducing sexual transmission of HIV-1 in Kenya and Tanzania. *Lancet (London, England)*, 356(9224), 113–121.
- United National Office on Drugs and Crime (2017). *Compilation of evidence-based family skills training programmes*. Geneva, Switzerland: World Health Organization.
- Ward, C. L., Artz, L., Leoschut, L., Kassanje, R., & Burton, P. (2018). Sexual violence against children in South Africa: A nationally representative cross-sectional study of prevalence and correlates. *The Lancet Global Health*, 6(4), e460–e468.
- World Health Organization (2001). *Putting women first: Ethical and safety recommendations for research on domestic violence against women [Internet]*. Geneva, Switzerland. Available from: <http://www.who.int/gender/violence/womenfirsteng.pdf>.
- World Health Organization (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. Geneva, Switzerland.
- World Health Organization (2016). *INSPIRE: Seven strategies for ending violence against children*. Geneva: WHO.