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Perpetration of Sexual Aggression among Adolescents in South Africa

Caroline Kuo,
Department of Behavioral and Social Sciences, Brown University School of Public Health; Providence/Boston Center for AIDS Research; Department of Psychiatry and Mental Health, University of Cape Town..

Catherine Mathews,
Health Systems Research, Unit, South African Medical Research Council.

Ashleigh LoVette,
Department of Behavioral and Social Sciences, Brown University School of Public Health.

Abigail Harrison,
Department of Behavioral and Social Sciences, Brown University School of Public Health.

Lindsay Orchowski,
Rhode Island Hospital; Department of Psychiatry and Human Behavior, Warren Alpert Medical School of Brown University.

Jennifer A. Pellowski,
Department of Behavioral and Social Sciences, Brown University School of Public Health..

Millicent Atujuna,
Desmond Tutu HIV Foundation.

Dan J. Stein,
Department of Psychiatry and Mental Health, University of Cape Town; Unit on Risk & Resilience in Mental Disorders, South African Medical Research Council.

Larry K. Brown
Department of Psychiatry and Mental Health, Alpert Medical School of Brown University; Providence/Boston Center for AIDS Research.

Abstract

Introduction—In South Africa, one in three men have reported perpetrating rape. Adolescence presents a unique developmental period for primary prevention of violence. However, few studies characterize the epidemiology of sexual violence among adolescents in South Africa.

Method—We evaluated rates of sexual violence behaviors using a baseline survey of N=200 South African adolescents, age 13–15, recruited for participation in an intervention trial. The

Correspondence concerning this article should be addressed to Caroline Kuo, Department of Behavioral and Social Sciences, Brown University School of Public Health, 121 South Main Street, Providence, Rhode Island 02912, USA. Contact: Caroline_Kuo@brown.edu.

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intervention focused on preventing onset of depression and sexual risk behavior among adolescents. This sample of adolescents were at elevated risk for depression and recruited using house-to-house methods in the community. Sexual perpetration behaviors were assessed using the Sexual Experiences Survey - Short Form Perpetration.

Results—Adolescents most frequently reported the use of coercion, incapacitation, force or threats of force to perpetrate oral sex (15%) followed by sexual touching (14%), anal sex (8%), and vaginal sex at (6%). Perpetration was more common among males compared to females with males perpetrating at a rate of 34.5% vs. 20.5% among females. Attempted perpetration was reported at alarming rates including: vaginal sex (8%), oral sex (8%), and anal sex (5%).

Conclusions—Primary prevention of sexual violence perpetration, including gender- and developmentally-tailored approaches, are urgently needed for adolescents.

Keywords

intimate partner violence; adolescents; prevention; South Africa

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Globally, over 1 in 3 women will experience intimate partner or non-partner sexual and/or physical violence in their lifetime (World Health Organisation, 2013). In South Africa, perpetration rates are high. One in three South African men (18–49 years) reported rape perpetration in a population-based survey (Jewkes, Sikweyiya, Dunkle, & Morrell, 2015). The majority of adult perpetrators (75%) reported committing their first rape before the age of 20 (Jewkes et al., 2006; Jewkes, Sikweyiya, Morrell, & Dunkle, 2011), underscoring that violence prevention needs to occur early in the life course.

Empirical data on adolescent intimate partner violence (IPV), especially sexual violence, are however, rare. South Africa has a handful of existing epidemiological surveys of adolescent sexual perpetration. One study in Johannesburg, found that 18.3% of female adolescents (15–19 years of age) reported experiencing sexual violence from an intimate partner in the past year (Decker et al., 2014). Another study in Cape Town identified a 10% prevalence of sexual violence (defined as ‘forced’ sex by/of a partner or non-partner) among eighth graders, typically corresponding to 13 years of age (Russel et al., 2014). A third study – baseline data from a school-based HIV and IPV prevention study – reported that 13% of adolescents perpetrated IPV (Mason-Jones et al., 2016). Characterizing rates of sexual aggression, assault characteristics, and predictors of perpetration among adolescents in South Africa can inform directions for gender- and developmentally-tailored intervention strategies in this high priority population and setting.

Method

Participants

Data on perpetration behaviors are derived from a baseline survey of N=200 adolescents with elevated but below-clinical threshold for depression recruited for participation in a randomized pilot trial testing the feasibility and acceptability study of *Our Family Our Future*, a resilience oriented family intervention targeting prevention of adolescent HIV risk behavior and depression (ClinicalTrials.gov #). Thus, the study sample represents

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adolescents at elevated risk for onset of depression and sexual risk behavior given the prevention focus of the intervention. Details regarding intervention development are reported elsewhere (Kuo et al., 2016). The study took place just outside of Cape Town, South Africa from 2015–2017 in a community where antenatal HIV prevalence is 33% (Shisana et al., 2014). All study procedures and protocols were approved by an institutional review board and human research ethics committee (Brown University Protocol #1207000666, University of Cape Town Protocol # 072/2013 and 796/2014). All adolescents participating in the study provided written informed assent following parent/guardian written consent. The following inclusion criteria were utilized to identify eligible adolescent participants: 1) 13–15 years old at the time of screening for recruitment; and 2) a score reflecting elevated depressive symptoms (score ranging from 9 and 15 on the Center for Epidemiologic Studies Depression Scale or CESD) that fall below the clinically significant range for depression. Adolescents were eligible regardless of status of sexual debut. All adolescents were recruited using house-to-house recruitment methods similar to census sampling. Specifically, the study community was split into geographic neighborhoods determined by the South African census enumeration areas. Census enumeration areas were visited in a pre-determined random sequence to limit geographic bias. Within each enumeration area, every household was visited and included for eligibility screening. Each household was visited up to 3 times on random days and times. Screening was conducted by the study team face-to-face with each adolescent using a smartphone programmed with the CESD that auto-calculated eligibility based on the targeted CESD score range. Of the 242 adolescents screened in total, 42 were excluded (13 with <9 and 5 with >15 on CESD, 24 excluded because consent/assent was not obtained or because of age).

Procedures

Adolescents completed a structured survey using smartphones programmed with SurveyToGo software. Interviews took place at the participant's home. Interviewers administered items to participants verbally except for a subset of sensitive questions including perpetration behavior questions. These sensitive behavior questions were self-reported using audio computer-assisted self-interviewing software to reduce social reporting bias. Interviews lasted approximately 1 hour. Participants were provided with 50 South African Rand as a stipend for participation.

Measures

All measures were translated into isiXhosa. Demographic characteristics were collected including age, gender, race/ethnicity, and primary language. We also asked about risky sex behaviors such as frequency of condom use.

Sexual Experiences Survey – Short Form Perpetration. Perpetration behaviors were collected using the Sexual Experiences Survey - Short Form Perpetration (SES-SFP) (Koss et al., 2006, 2007). This 10-item measure captures frequency of attempted or completed sexual acts as well as tactics for each act including for example, coercion and incapacitation. An example item includes: "I had oral sex with someone or had someone perform oral sex on me without their consent by threatening to physically harm them or someone close to them." For each type of behavior – such as the unwanted oral sex item described previously –

participants described the frequency (0, 1, 2, 3+ times in the past 12 months) and the tactics used (e.g. "threating to physically harm them or someone close to them"). Three items in the measure were descriptive, capturing for example, gender and age; whether perpetration behaviors were repeated more than once; and perception regarding whether acts constituted rape. Scoring yields the prevalence of individuals who have engaged in perpetration behavior in the overall sample. This is a non-redundant count; that is, an individual is only counted once as a "yes" to perpetrating unwanted sexual contact regardless of how many times they may have perpetrated or whether they perpetrated unwanted sexual contact in multiple categories (e.g. oral sex and anal sex, etc.). Scoring also yields the prevalence in each category of perpetration (e.g., % of participants who engaged in unwanted oral sex one or more times, % of participants who engaged in unwanted anal sex one or more times). This may result in percentages that exceed 100% because participants may have perpetrated more than one category of behavior. Internal reliability was $\alpha = 0.80$.

National Stressful Events Survey Acute Stress Disorder Short Scale. Post-traumatic stress disorder was measured using the National Stressful Events Survey Acute Stress Disorder Short Scale (Kilpatrick, Resnick, and Friedman, 2013). This 9-item measure assesses the severity of posttraumatic stress disorder. The questions are answered on a 5-point likert scale. An example question includes: "How much have you been bothered during the past seven days by each of the following problems that occurred or became worse after an extremely stressful event/experience? Trying to avoid thoughts, feelings, or physical sensations that reminded you of a stressful experience?" Internal reliability was $\alpha = 0.93$.

Connor-Davidson Resilience Scale. Resilience was measured using the Connor-Davidson Resilience Scale (Connor & Davidson, 2003). This 10-item scale evaluates resilience. The questions are answered on a 5-point likert scale. An example item includes: "I am able to adapt when changes occur." Internal reliability was $\alpha = 0.91$.

Strengths and Difficulties Questionnaire. Behaviors including delinquency and negative peer relationships were measured using the Strengths and Difficulties Questionnaire (Goodman, 2004). This 25-item measure captures a range of adolescent internalizing and externalizing behaviors including conduct, delinquency, and peer relationships. The questions are answered on a 3-point likert scale. An example item includes: "I am helpful if someone is hurt, upset or feeling ill." Internal reliability was $\alpha = 0.79$.

Family Relationship Scale. Family relationship was measured using the Family Relationship Scale (Tolan, Gorman-Smith, Huesmann, & Zelli, 1997). This 21-item measure examines various aspects of family interactions. The questions are answered on a 4-point likert scale. An example item includes: "Family members ask each other for help." Internal reliability was $\alpha = 0.79$.

Multidimensional Scale for Perceived Social Support. Social support was measured using the Multidimensional Scale for Perceived Social Support (Dahlem, Zimet, & Walker, 1991). This 12-item scale captures perceived support from family, friends, and significant others. The questions are answered on a 7-point likert scale. An example item includes: "My family is willing to help me make decisions." Internal reliability was $\alpha = 0.91$.

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My Exposure to Violence Scale. Community violence was explored using the My Exposure to Violence Scale (Suglia, Ryan, and Wright, 2008). This 24-item measure examines frequency of exposure to different types of violence including physical violence, and violence relating to knives guns. An example question includes: "Have you ever found out that someone you knew had been shot, but not killed?" Internal reliability was $\alpha = 0.64$.

Analyses

We conducted descriptive statistics to evaluate the prevalence of attempted and completed perpetration. We constructed multi-variable regression analyses to examine associations between possible risk and protective factors and behavioral outcomes. We declared the findings as statistically significant if the corresponding *p*-values were 0.05. All analyses were completed using SPSS Statistics 24 software.

Results

Adolescent participants were an average age of 14 years (ranging from 13–15 years). All identified as Black African with isiXhosa as their primary language. In the sample of N=200 adolescents, 56% were female and 43% were male. A significant percentage of adolescents (24.7%) reported using coercion, incapacitation, force or threats of force to perpetrate unwanted sexual acts. When we disaggregated perpetration behaviors by type of sexual act, the most common sexual act involved in unwanted sexual encounters was oral sex (15%) followed by sexual touching (14%), anal sex (8%), and vaginal sex (6%). Most common perpetration tactics included verbal coercion, followed by incapacitation, threats of violence, and physical assault. Notable was that only 0.5% regarded their actions as rape. Attempted perpetration was also reported at alarming rates (13%). When we disaggregated attempted perpetration behaviors by type of sexual act, the most common sexual act involved in attempted but uncompleted unwanted sexual encounters was vaginal sex (8%) followed by oral sex (8%), and anal sex (5%).

There were no age-related differences in perpetration behaviors. However, when we disaggregated data by gender, males reported perpetrating at much higher rates than females. Males reported perpetrating at significantly higher rates than females (34.5% vs. 20.5%, $\chi 2=4.874$, $p<0.03$). Among males, the most common sexual act involved in unwanted sexual encounters was oral sex (23%), followed by sexual touching (18.4%), anal sex (11.6%), and vaginal sex (7%). Alarmingly, 14% of boys from our study engaged in repeat perpetration. Among females, the most common sexual act involved in unwanted sexual encounters was sexual touching (10.8%) followed by oral sex (8%), anal sex (5.5%), and vaginal sex (5.4%) (see Table 1).

We conducted adjusted regression models included personal factors (mental health, delinquency, risky sex, repeat perpetration), family and peer factors (family relationship and support, negative peers), and community factors (poverty and violence). PTSD symptoms (OR=0.07, 95% CI=0.01–0.83), poor family relationships (OR=0.09 95% CI=0.01–0.99), and low family support (OR=0.05, 95% CI=0.01–0.52) were risk factors for any type of perpetration behavior (see Table 2).

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Discussion

Adolescence is a critical developmental period that offers opportunities for preventive intervention. Findings indicate concerning rates of sexual perpetration. The young age of both completed and attempted acts of perpetration indicate that we need primary preventive interventions for violence to occur early in the life course, during adolescence. The finding that rates of perpetration were as high as 15% but only 0.5% of adolescents defined their behavior as rape, and that 14% engaged in repeat perpetration indicates that interventions with a primary prevention focus may have the most impact. One study limitation is that this sample represents adolescents at risk for poor mental health, and thus they may be at elevated risk for violence perpetration and victimization. Another study limitation is that rates of perpetration are likely to be underestimates, given the propensity to deny such behaviors. Findings also indicate that perpetration was more common among males. While rates of perpetration were still concerning among females, and should not be ignored, the priority for future preventive interventions should be towards boys because the majority of IPV is perpetrated by boys and men. The consequences of gender-based violence are severe; for example rates of intimate partner femicide in South Africa are five-times the global rate (Abrahams, Mathews, Martin, Lombard, & Jewkes, 2013). Gender-tailoring interventions towards boys may create a more effective space to unearth and challenge misperceptions of social and gender norms that are linked to violent behavior.

Within the existing field of primary preventive interventions for violence, interventions for adolescents, and interventions designed for low- and income-country settings with high prevalence of violence, need further development. In DeGue et al.'s 2014 systematic review of 140 outcome evaluations of sexual violence preventive interventions, only three were randomized controlled trials (RCTs), all tested in the USA. Of these interventions, only two focused on adolescents (DeGue et al., 2014). These included Foshee et al.'s 2005 intervention, *SAFE Dates*, and Taylor et al.'s 2013 *Shifting Boundaries* intervention; both of these interventions used combination intervention approaches of behavioral intervention with adolescents, with changes to school and community environments (Foshee et al., 2005; Taylor, Stein, Mumford, & Woods, 2013). Since DeGue et al.'s 2014 review, two additional RCTs have been identified with an adolescent focus; of these, one is in South Africa. *Coaching Boys to Men* is an adolescent dating violence intervention using bystander intervention techniques for high school athletes in the USA and showed more likelihood to engage in bystander intervention but no changes in sexual, physical, or psychological perpetration behaviors (Miller et al., 2012). In South Africa, the *Skhokho* intervention is currently being tested in a RCT comparing a school and family intervention versus a school intervention versus a control group (Shamu et al., 2016).

Adolescent- and gender-tailored interventions are needed to capitalize on unique opportunities for larger prevention gains. In regards to adolescence, interventions can tap into adolescent ecosystems to ensure the success of behavior change. Our findings for example, indicate several developmentally relevant leverage points. For example, findings indicate that addressing peer, family, and community risks for violence may be ecologically relevant during the development phase of adolescence. One other study in South Africa examined risk factors for perpetration among this age group and also identified

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developmental relevant points of intervention including school connectedness and school safety (Mason-Jones et al., 2016). Developmentally-tailored interventions can capitalize on formative experiences to habituate prevention behaviors for IPV. In regards to gender, adolescence is a period when peers have a strong influence on the formation of gender norms. A preventive intervention can reinforce healthy male identity formation and gender norms. The future development of adolescent- and gender-tailored interventions have great potential to facilitate long-term life course gains for safe and healthy lives for adolescents at risk for perpetrating violence.

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Table 1.

Proportion of Adolescents Reporting Perpetration Behaviors, Including Disaggregation by Gender

	Completed Perpetration	Attempted Perpetration	Male Perpetration	Female Perpetration
Oral Sex	15%	8%	23%	8%
Sexual touching	14%	-	18.4%	10.8%
Anal sex	8%	5%	11.6%	5.5%
Vaginal sex	6%	8%	7%	5.4%

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Table 2.

Multivariate Logistic Regression Testing Risk Factors for Perpetration of Sexual Aggression

	Model 1 OR [95% CI]	Model 2 OR [95% CI]	Model 3 OR [95% CI]
Individual factors			
Alcohol use	2.52 [0.58–11.07]	3.91 [0.39–39.84]	15.56 [0.59–41.34]
PTSD	0.35 [0.09–1.45]	0.14 [0.02–1.10]	0.07* [0.01–0.83]
Resilience	1.22 [0.31–4.74]	6.92 [0.92–52.17]	9.65 [0.87–106.78]
Conduct problems	0.84 [0.15–4.76]	0.39 [0.03–4.80]	0.33 [0.02–4.48]
Unprotected sex ever	2.22 [0.49–9.93]	2.15 [0.35–13.24]	3.40 [0.40–28.71]
Repeat perpetration	1.30 [0.84–2.01]	1.24 [0.77–2.00]	1.43 [0.80–2.57]
Gang involvement	1.05 [0.06–19.81]	5.35 [0.10–30.18]	0.56 [0.01–68.93]
Family and peer factors			
Family relationships		0.08* [0.01–0.71]	0.09* [0.01–0.99]
Family social support		0.09* [0.01–0.68]	0.05* [0.01–0.52]
Peer relationships		8.11 [0.61–107.15]	30.56 [0.97–963.63]
Community factors			
Poverty			5.65 [0.82–38.91]
Community violence exposure			0.25 [0.03–2.41]

*Denotes significance at $p<.05$ level