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Associations between childhood adversity and depression, substance abuse and HIV and HSV2 incident infections in rural South African youth☆

Rachel K. Jewkes[a,b,*], Kristin Dunkle[c], Mzikazi Nduna[d], P. Nwabisa Jama[a], Adrian Puren[e]

[a] Gender and Health Research Unit, Medical Research Council, South Africa
[b] School of Public Health, University of the Witwatersrand, South Africa
[c] Behavioral Sciences and Health Education, Emory University, Atlanta, GA, USA
[d] Department of Psychology, University of the Witwatersrand, South Africa
[e] Virology, National Institute for Communicable Disease, Sandringham, South Africa

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ABSTRACT

Objectives: To describe prevalence of childhood experiences of adversity in rural South African youth and their associations with health outcomes.
Methods: We analyzed questionnaires and blood specimens collected during a baseline survey for a cluster randomized controlled trial of a behavioral intervention, and also tested blood HIV and herpes simplex type 2 virus at 12- and 24-month follow up; 1,367 male and 1,415 female volunteers were recruited from 70 rural villages.
Results: Both women and men before 18 had experienced physical punishment (89.3% and 94.4%), physical hardship (65.8% and 46.8%), emotional abuse (54.7% and 56.4%), emotional neglect (41.6% and 39.6%), and sexual abuse (39.1% and 16.7%). Incident HIV infections were more common in women who experienced emotional abuse (IRR 1.96, 95% CI 1.25, 3.06, $p = .003$), sexual abuse (IRR 1.66 95% CI 1.04, 2.63, $p = .03$), and physical punishment (IRR 2.13 95% CI 1.04, 4.37, $p = .04$). Emotional neglect in women was associated with depression (aOR 1.82, 95% CI 1.15, 2.88, $p = .01$), suicidality (aOR 5.07, 95% CI 2.07, 12.45, $p < .0001$), alcohol abuse (aOR 2.17, 95% CI .99, 4.72, $p = .05$), and incident HSV2 infections (IRR 1.62, 95% CI 1.01, 2.59, $p = .04$). In men emotional neglect was associated with depression (aOR 3.41, 95% CI 1.87, 6.20, $p < .0001$) and drug use (aOR 1.98, 95% CI 1.37, 2.88, $p < .0001$). Sexual abuse was associated with alcohol abuse in men (aOR 3.68, 95% CI 2.00, 6.77, $p < .0001$) and depression (aOR 2.16, 95% CI 1.34, 3.48, $p = .002$) and alcohol abuse in women (aOR 3.94, 95% CI 1.90, 8.17, $p < .0001$).
Practice implications: Childhood exposure to adversity is very common and influences the health of women and men. All forms of adversity, emotional, physical and sexual, enhance the risk of adverse health outcomes in men and women. Prevention of child abuse need to be included as part of the HIV prevention agenda in sub-Saharan Africa. Interventions are needed to prevent emotional, sexual, and physical abuse and responses from health and social systems in Africa to psychologically support exposed children must be strengthened.

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* Corresponding author address: Gender & Health Research Unit, Medical Research Council, Private Bag X385, Pretoria 0001, South Africa.

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Introduction

Exposure to adversity in childhood violates children's basic human rights and has significant implications for their health and social development. Research on adverse experiences in childhood, including child abuse, has been a substantially neglected area, especially in Africa. Yet this is critical for building a global climate of respect for human rights, and understanding what child protection is needed, why it is important and the policy responses required.

Sexual violence against girls has been described in a number of studies, with the prevalence reported varying depending on the definition used. Research with women in 3 sites in Tanzania and Namibia has found between 9.5% and 21% of women reporting unwanted sexual contact before age 15 and a third of young women in Swaziland reported sexual abuse before 18 (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2005; Reza et al., 2009). Schools are a particularly common context for sexual and physical abuse in Africa (Human Rights Watch, 2001; Jewkes, Levin, Bradshaw, & Mbananga, 2002). In South Africa corporal punishment in schools has been illegal since 1996 but the government has not managed to enforce the law (Morrell, 2001a, 2001b). Research from Uganda and Zambia has also pointed to the ubiquity of the use of physical punishment in homes (Naker, 2005; Slonim-Nevo & Mukuka, 2007). While highly prevalent sexual and physical abuse of children in sub-Saharan has been documented, there has been little attempt to conceptualize or ascertain the prevalence of neglect or emotional abuse and even less work on abuse of boys.

Research mostly in developed countries has shown that children who have been physically or sexually abused have a greater risk of depression, suicidality, post-traumatic stress disorder, unwanted pregnancy, and sexually transmitted infections (Felitti et al., 1998; Jewkes et al., 2006a; Runyan, Wattam, Ikeda, Hassan, & Ramiro, 2002; Slonim-Nevo & Mukuka, 2007; Turner, Finkelhor, & Ormrod, 2006). In research with Native American tribes, women exposed to emotional, physical, and sexual abuse were more likely to develop alcohol dependency, as were men exposed to sexual and physical abuse (Koss et al., 2003). Exposure to abuse and neglect negatively affects the development of a child's brain, with consequent cognitive, psychological, and social impairment (Perry, 2001), as well as a risk of developing anti-social and violent behavior (Caspi et al., 2002; Perry, 2001), including rape perpetration (Jewkes, Dunkle, et al., 2006; Knight & Sims-Knight, 2003; Malamuth, 2003).

We used data collected in South Africa during a research project evaluating an HIV prevention intervention (Jewkes, Nduna, et al., 2006; Jewkes et al., 2008) to describe here the prevalence of exposure to childhood adversity and test hypotheses that such exposures were associated with prevalent depressive symptomatology, suicidality, and substance abuse, as well as incident herpes simplex type 2 virus infection (HSV2) and HIV infections over 2 years of follow up.

Methods

Between 2002 and 2003 we recruited 1367 men and 1415 women aged 15–26 years into a cluster randomized controlled trial undertaken to evaluate the HIV prevention behavioral intervention Stepping Stones. They were volunteers from 70 study clusters (64 villages and 6 townships) in the rural Eastern Cape province of South Africa near the town of Mthatha. Eligible participants were aged 16–23 years, normally resident in the area where they schooled and mature enough to understand the study and consent process. There was a difference between the actual (15–26 years) and intended age of participants which is discussed in detail elsewhere (Jewkes, Nduna, et al., 2006). Most were recruited from schools, where between 15 and 25 youth of each sex per village were enrolled in the study.

Clusters were randomly allocated to the 2 study arms. The Stepping Stones intervention uses participatory learning approaches, including critical reflection, role play, and drama and draws the everyday reality of participants' lives into the sessions. It is delivered to single sex groups, which are run in parallel, and has 13 3-hour long sessions that are complemented by 3 meetings of male and female peer groups, and a final community meeting. The program spanned about 50 hours and ran for 6–8 weeks. The control intervention was a single 3-hour session on HIV, safer sex, and condoms. The content was taken from Stepping Stones. Both interventions were delivered by facilitators employed by the project.

We administered questionnaires and collected blood samples before the intervention (baseline) and after about 1 and 2 years. Participants were located for the follow up interviews using details collected at enrolment; 1,121 men and 1,100 women were successfully traced and provided data for the HIV and HSV2 incidence analyses. Age and sex-matched interviewers conducted face to face interviews with participants in isiXhosa (their first language). A trained nurse counselor provided counseling before HIV testing to groups of 8–10 people after they had enrolled for the study, signed consent for the interview, and completed the baseline questionnaire. Participants with positive results were told their CD4 counts and screened for medical problems. They were also referred to local health services and HIV support groups according to a referral algorithm. For the first years of the study anti-retroviral medication was not available in the public sector in the study area. The Medical Research Council paid for lunch, transport, and consultation fees for HIV positive participants accessing health services. The study nurses supported participants with social problems and HIV related problems throughout the course of the study, referring to social workers or health facilities as appropriate. Further description of the trial methods is published elsewhere (Jewkes, Nduna, et al., 2006).

Access and ethics

In each cluster, recruitment started with general community mobilization, and the study was explained to key local figures. In most villages the chief (or his representative) called a monthly community meeting. Typically a staff member