

Developing family interventions for adolescent HIV prevention in South Africa

Caroline Kuo^{a,b,c}, Millicent Atujuna^{c,d}, Catherine Mathews^{c,e}, Dan J. Stein^c, Jacqueline Hoare^c, William Beardslee^{f,g,h}, Don Operario^{a,b}, Lucie Cluver^{c,i} and Larry K. Brown^{b,j}

^aDepartment of Behavioral and Social Sciences, Center for Alcohol and Addiction Studies, Brown University School of Public Health, Providence, RI, USA; ^bLifespan/Tufts/Brown Center for AIDS Research, Providence, RI, USA; ^cDepartment of Psychiatry and Mental Health, University of Cape Town, Cape Town, South Africa; ^dDesmond Tutu HIV Foundation, Cape Town, South Africa; ^eHealth Systems Research Unit, South African Medical Research Council, Tygerberg, Cape Town, South Africa; ^fBoston Children's Hospital, Boston, MA, USA; ^gJudge Baker Children's Center, Boston, MA, USA; ^hDepartment of Psychiatry, Harvard Medical School, Boston, MA, USA; ⁱDepartment of Social Policy and Intervention, Oxford University, Oxford, UK; ^jDepartment of Psychiatry and Human Behavior, Brown University Alpert Medical School, Providence, RI, USA

ABSTRACT

Adolescents and young people account for 40% of all new HIV infections each year, with South Africa one of the hardest hit countries, and having the largest population of people living with HIV. Although adolescent HIV prevention has been delivered through diverse modalities in South Africa, and although family-based approaches for adolescent HIV prevention have great potential for highly affected settings such as South Africa, there is a scarcity of empirically tested family-based adolescent HIV preventive interventions in this setting. We therefore conducted focus groups and in-depth interviews with key informants including clinicians, researchers, and other individuals representing organizations providing HIV and related health services to adolescents and parents ($N = 82$). We explored family perspectives and interactions around topics such as communication about sex, HIV, and relationships. Participants described aspects of family interactions that presented both challenges and opportunities for family-based adolescent HIV prevention. Parent-child communication on sexual topics were taboo, with these conversations perceived by some adults as an invitation for children to engage in HIV risk behavior. Parents experienced social sanctions for discussing sex and adolescents who asked about sex were often viewed as disrespectful and needing discipline. However, participants also identified context-appropriate strategies for addressing family challenges around HIV prevention including family meetings, communal parenting, building efficacy around parent-adolescent communication around sexual topics, and the need to strengthen family bonding and positive parenting. Findings indicate the need for a family intervention and identify strategies for development of family-based interventions for adolescent HIV prevention. These findings will inform design of a family intervention to be tested in a randomized pilot trial (ClinicalTrials.gov #NCT02432352).

ARTICLE HISTORY

Received 22 September 2015
Accepted 20 January 2016

KEYWORDS

HIV prevention; adolescent; family-based interventions; intervention development; South Africa

Introduction

Adolescents and young people account for 40% of all new HIV infections (UNAIDS, 2012a, 2014). South Africa has the largest country epidemic (UNAIDS, 2014) and sustained high incidence among young people (Simbayi et al., 2014). Although South Africa has led development of innovative adolescent HIV prevention, further research is needed to engage adolescents in prevention. For example, a recent meta-analysis ($k = 11$; $N = 22,788$) showed that HIV interventions for South African youth were efficacious (Scott-Sheldon, Walstrom, Harrison, Kalichman, & Carey, 2013). Yet, 40% of 15–24-year-olds did not think that they were at risk for HIV, and only 26% correctly identified common modalities of HIV transmission and

prevention (Simbayi et al., 2014). Family-based approaches are developmentally appropriate but have not been fully utilized in HIV prevention science. Noticeably absent in a systematic review of 31 South African adolescent HIV interventions were any family-based approaches (Harrison, Newell, Imrie, & Hoddinott, 2010). Since this review, two family interventions are under development targeting pre-adolescents (10–13 years) (Armistead et al., 2014; Bhana et al., 2014), but are needed for early adolescents (13–15 years) because HIV incidence rises rapidly at 15 years of age (UNAIDS, 2012b). Families are well positioned to reinforce motivation, decision-making, and adolescent protective behaviors. To develop family interventions in South Africa, we conducted a

CONTACT Caroline Kuo  caroline_kuo@brown.edu

© 2016 The Author(s). Published by Taylor & Francis.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

qualitative study from 2013 to 2015 to explore family interactions around HIV and sex for early adolescents.

Methods

This study took place in Khayelitsha, an urban township with 90% Xhosa and monthly income less than 3200 Rand (Statistics South Africa, 2011). Antenatal HIV prevalence is 33% (Cape Town Government, 2014). We conducted four adolescent ($n = 30$) and four parent focus groups ($n = 27$). Participants were recruited from clinics and a HIV prevention organization. Adolescents were 13–15 years. Parents (or guardians) were 18 years or older and caring for an adolescent 13–15 years. Following consent and assent, audiotaped discussions lasted 1–1.5 hours. Each participant received 80 Rand. We also conducted key informant interviews ($n = 25$) with medical personnel, researchers, and service providers who were 18 years or older, had 3 or more years of experience, and HIV-related expertise, recruited through participant-driven sampling (Gile & Handcock, 2010). Following consent, audiotaped interviews lasted 1–1.5 hours. Each participant received 100 Rand. Protocols explored family interactions around sex and HIV and intervention design preferences. Ethical review committees at Brown University (#1207000666) and University of Cape Town (HREC 072/2013) approved procedures. Demographic characteristics are summarized in Table 1. Data were transcribed verbatim and entered into NVivo (QSR International, 2012). Transcripts were analyzed using open and axial coding (Strauss & Corbin, 1998). Text were compiled under codes and meaning from codes formulated to produce themes. We triangulated data to compare and contrast perspectives of participant groups.

Results

Sex is taboo and affects family communication, parenting, and discipline

Understanding how families perceive and communicate about sex is crucial to design of family HIV prevention (see Figure 1). Despite national evidence of young sexual debut (~15 years), all participants described sex as only appropriate during adulthood, defined as 18 years of age:

At our age we are too young. We can't have sex because we are under the age of 18. (Child FGD)

This concept of sleeping with boys at an early age is also taboo to us, as we would never allow boys to penetrate us, as that was not allowed. (Parent FGD)

Sex under 18 years was taboo, creating parent–child sexual communication barriers:

Table 1. Participant characteristics.

	Adolescents ($k = 3$, $n = 30$)	Parents ($k = 3$, $n = 27$)	Key informants ($n = 25$)
Ethnicity and population group			
Black African	100%	100%	48%
White			44%
Colored			8%
First language			
isiXhosa	100%	100%	44%
English			36%
Afrikaans			19%
Other			1%
Age (mean, range)	13.7 years (13–15 years)	43.4 years (20–61 years)	41 years (28–67 years)
Gender			
Male	90%	4%	24%
Female	10%	96%	75%
Trans	0%	0%	1%
Education (mean)			
Grade 12	Grade 6	Grade 8	24%
Bachelors			36%
Masters or above			40%
Orphaned	1/3	–	–
Relationship to caregiver			
Biological parent	63%	–	–
Extended family or other adult	37%		
Socioeconomic status			
Employed	–	18%	–
Government social welfare grants main source of household income		63%	

There is this question asked by children ... about the correct age for sex and how to choose a person for sex. I can't answer those because it doesn't feel right to me because at the age of 18, the child may ask sexual questions. (Parent FGD)

Some parents and key informants, but not children, perceived parents who communicated with children about sex as actively encouraging relationships or tacitly giving approval for sex:

They think that, 'If I talk with these children about sex, I said now 'Go and have it, sex.' That's why I said it's because of the culture. Our cultures are different. (Community Health Worker)

Taboos around sexual communication impacted family interactions.

Some parents who discussed sex faced social sanction and were viewed as falling short of optimal parenting:

The mother will have to answer; the child would say that, "Mom said I should use a condom and it busted or my boyfriend refused to wear it." The child will speak that in front of men and you will be taken as the person who gave the child to the boys to fall pregnant. (Parent FGD)

Children who asked about sex were perceived by some parents as disrespectful:

From a Xhosa background, we're just not grown up talking about sex ... for you talking about sex to your older

Themes	Main Findings
Contextual and cultural factors affecting family interactions for HIV prevention	<ul style="list-style-type: none"> Sexual taboos, described as Xhosa specific, due to perceptions that sexual behavior should occur among adults 18 years of age or older Threat of social sanctions by the community or within families for parents and children who violated taboos around sexual behavior and/or communication on sexual topics Conceptions of “obedient” and “respectful” children corresponding to limited parent-child communication and interaction around sexual topics
Family challenges in engaging adolescents in HIV prevention	<ul style="list-style-type: none"> Taboos adversely impact family bonding Parent-child fear of communication regarding sexual topics (sex, relationships, protective behaviors such as condom use, HIV and STIs, puberty) Confusion and discomfort around appropriate timing, content, and approach for parents engaging adolescents in effective HIV prevention Family interactions around adolescent sexual and reproductive health challenged by negative, rather than positive parenting behaviors Delayed prevention interactions within the family until behavioral signs of adolescent risk behavior have already emerged
Family motivations to engage adolescents in HIV prevention	<ul style="list-style-type: none"> Significant community challenges with endemic levels of HIV Recognized unmet sexual health needs among adolescents accompanied by high levels of risk behavior Multiple community and structural risk factors for adolescent sexual health Parents highly motivated to address adolescent HIV prevention challenges using a framework of promoting adolescent resilience rather than risk reduction
Future family intervention design	<ul style="list-style-type: none"> Self-efficacy and behavioral training in communication, family bonding, parenting, and protective skills Information on sexual topics and puberty to prepare parents for accurate and appropriate family interactions for prevention Facilitated parent-child interactions Use of context appropriate strategies for prevention including discussion and debate to challenge taboos; to challenge concepts of respect, discipline, and parenting as they related to effective prevention; and building family communication and resilience through the use of family meetings

Figure 1. Summary of study themes around family interactions around sex and HIV.

ma, like to your parents, it’s disrespectful ... in this culture, it’s more like asking [for] your mom’s bank account ... It’s something that was meant for old people, for a certain age. (HIV Activist)

While respectful children showed obedience by not asking questions ...

In a Xhosa culture, children should respect and obey the parents. That’s the first thing. The orders that your parents give you, you should just carry without asking questions. (Social Worker)

... disrespectful children – including those who asked about sex – faced discipline. Together, these taboos around sex delayed timing of prevention communication. Communication was retroactive, taking place *after* parents discovered adolescents had engaged in risky behavior:

The cultural norms and standards do not allow [talking about sex], especially the black people, African black people ... We don’t want to speak with children about sexual activities, because we have the belief that once we do, that we encourage them to become sexual[ly] active. Because children, once you telling them something, they want to explore it, and have an experience of it. So we are not allowed to talk to them. At a certain stage, once they actually show the symptoms of that, they are sexually active now, or they do have relationships, then that’s where we start to do talking. (Community Health Worker)

Delayed conversations were filled with animosity, adversely impacting family bonding and resulted in negative, rather than positive parenting:

You see, the parents they parent the way they were parented ... The only time that they will sit you down and talk about this when something wrong have happened. Then only, yeah, in an aggressive way, not even in a friendly way. You don’t get to get the nitty gritty of it. (Social Worker)

This text also highlights HIV prevention messages were ambiguous and lacked adequate detail around protective behaviors.

Strategies for family HIV prevention

Although participants acknowledged challenges, all advocated strongly for family prevention given adolescent sexual risks:

Sitting down with your child does not mean you lose respect for her ... It is very important for us to make a proper relationship with our children or being open to them ... If we continue to say it is difficult for us to talk about these things, then we will experience unprotected sex and pregnancy every day. (Parent FGD)

Parents were highly motivated to challenge taboos to promote adolescent well-being: “For my children, I can really see that being open to them and explaining how to live a good life is helpful because they have not started anything yet” (Parent FGD). Families needed to build confidence in communication, protective behavioral skills, and positive family interactions.

Participants identified family meetings as a context-appropriate intervention modality:

We use a lot of group, family group conferences ... It works very well because it's also traditionally quite a good way of working, but not just involving the parents and the children, but the broader family and the children. That works extremely well. It's been proven over and over in South Africa to be a good way of resolving things or dealing with things. (Community Health Worker)

Family conferences normalize parent–child sexual communication by integrating topics into conversations about broader family challenges. A facilitated family intervention would ease challenges about sex and HIV:

If I can find someone like you to talk about sex with me, I can be able also talk about it and make sure they listen carefully. I cannot talk about it alone because I will not be able to know where to start. (Parent FGD)

These findings offer insight into modality, topic, and structure of future interventions.

Discussion

This study identified challenging family interactions around sex and HIV because of taboos. Debate emerged around utility of taboos given the detrimental community effects of HIV, suggesting that social norms were fluid as parents reconsidered how taboos might facilitate or hinder adolescent well-being. Participants strongly supported development of a family HIV intervention, with communication, bonding, and positive parenting as ideal intervention targets. Family interventions should build efficacy and behavioral skills, encourage earlier timing of prevention activities to support adolescent protective behaviors prior to sexual debut, incorporate theory, and effective adolescent behavior change strategies as summarized in global meta-analyses (Johnson, Scott-Sheldon, Huedo-Medina, & Carey, 2011; Johnson, Michie, & Snyder, 2014). The majority of empirically tested family HIV interventions have been developed in Western contexts (Pequegnat & Bray, 2012). Adaptations may be needed to maximize response for the South Africa context including HIV prevalence, poverty, low literacy, language, and culturally specific concepts of resilience.

Acknowledgements

The authors wish to thank study participants who generously shared their expertise. We would like to thank Dr Kathleen Morrow for qualitative training mentorship, Dr Jeremy Seekings and the Center for Social Science Research at University of Cape Town with Dr Nicoli Nattrass and Mr Thobani Ncapai for their support in the qualitative training and data collection for this study.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

Research reported in this paper was supported by *the National Institute of Mental Health* of the National Institutes of Health under award number K01 MH096646, L30 MH098313 (PI Caroline Kuo) with additional support from the Eunice Kennedy Shriver National Institute of Child Health and Human Development of the National Institutes of Health under award number R24 HD077976 (PI: Mark Lurie) and K24 HD062645 (PI Kathleen Morrow). Contributions from Lucie Cluver was supported by a European Research Council grant under the European Union's Seventh Framework Programme (FP7/2007-2013)/ ERC grant agreement n°313421, the Philip Leverhulme Trust (PLP-2014-095) and the ESRC Impact Acceleration Account. Authors have no conflict of interests to report.

References

- Armistead, L., Cook, S., Skinner, D., Toefy, Y., Anthony, E. R., Zimmerman, L., ... Chow, L. (2014). Preliminary results from a family-based HIV prevention intervention for South African youth. *Health Psychology, 33*(7), 668–676. doi:10.1037/hea0000067
- Bhana, A., Mellins, C. A., Petersen, I., Alicea, S., Myeza, N., Holst, H., ... McKay, M. (2014). The VUKA family program: Piloting a family-based psychosocial intervention to promote health and mental health among HIV infected early adolescents in South Africa. *AIDS Care, 26*(1), 1–11. doi:10.1080/09540121.2013.806770
- Cape Town Government. (2014). *City health HIV, AIDS, STI, and TB plan 2012/2013*. Cape Town: Metro District Health Services. Retrieved from https://www.capetown.gov.za/en/IDP/Documents/Statutory20compliance20plans%202012/AnnexI_City_Health_HIV_Aids_STI_and_TB_Plan_20122013.pdf
- Gile, K., & Handcock, M. (2010). Respondent-driven sampling: An assessment of current methodology. *Sociological Methodology, 40*, 285–327.
- Harrison, A., Newell, M. L., Imrie, J., & Hoddinott, G. (2010). HIV prevention for South African youth: Which interventions work? A systematic review of current evidence. *BMC Public Health, 10*, 102. doi:10.1186/1471-2458-10-102
- Johnson, B., Scott-Sheldon, L., Huedo-Medina, T., & Carey, M. (2011). Interventions to reduce sexual risk for human immunodeficiency virus in adolescents. *Archives of Pediatrics & Adolescent Medicine, 165*(1), 77–84.
- Johnson, B., Michie, S., & Snyder, L. B. (2014). Effects of behavioral intervention content on HIV prevention outcomes: A meta-review of meta-analyses. *JAIDS Journal of Acquired Immune Deficiency Syndromes, 66*, S259–S270. doi:10.1097/qai.0000000000000235
- Pequegnat, W., & Bray, J. H. (2012). HIV/STD prevention interventions for couples and families: A review and introduction to the special issue. *Couple and Family Psychology: Research and Practice, 1*(2), 79–93. doi:10.1037/a0028682
- QSR International Pty Ltd. (2012). *NVivo (Version 10)*. QSR International Pty Ltd.

- Scott-Sheldon, L., Walstrom, P., Harrison, A., Kalichman, S. C., & Carey, M. P. (2013). Sexual risk reduction interventions for HIV prevention among South African youth: A meta-analytic review. *Current HIV Research, 11*(7), 549–558.
- Simbayi, L. C., Shisana, O., Rehle, T., Onoya, D., Jooste, S., Zungu, N., ... Zuma, K. (2014). *South African National HIV Prevalence, Incidence and Behaviour Survey, 2012*. Retrieved from Cape Town.
- Statistics South Africa. (2011). *Latest key indicators*. Retrieved from <http://www.statssa.gov.za/keyindicators/keyindicators.asp>
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.
- UNAIDS. (2012a). *Global AIDS response: Country progress report 2012, Republic of South Africa*. Retrieved from Pretoria: http://www.unaids.org/en/dataanalysis/knownyouresponse/countryprogressreports/2012countries/ce_ZA_Narrative_Report.pdf
- UNAIDS. (2012b). *UNAIDS world AIDS day report 2012*. Retrieved from Geneva.
- UNAIDS. (2014). *The GAP report*. Retrieved from Geneva.