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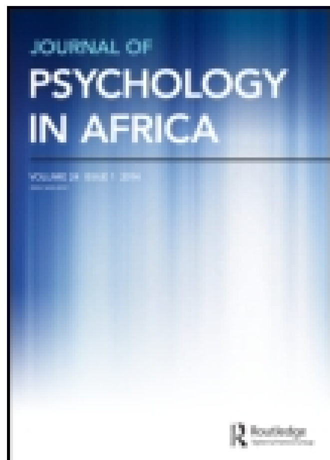

Journal of Psychology in Africa
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/rpia20

Factors shaping condom use among South African university students: a thematic analysis

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Published online: 28 Oct 2014.

To cite this article: Cleo Protogerou, Alan J. Flisher & Lauren G. Wild (2014) Factors shaping condom use among South African university students: a thematic analysis, Journal of Psychology in Africa, 24:3, 215-224

To link to this article: http://dx.doi.org/10.1080/14330237.2014.906081

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Journal of Psychology in Africa, 2014
Vol. 24, No. 3, 215–224, http://dx.doi.org/10.1080/14330237.2014.906081
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Factors shaping condom use among South African university students: a thematic analysis

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This study aimed to investigate contextual influences on condom use by South African university students. Twenty one-to-one, semi-structured interviews were conducted with male and female South African undergraduates. The data were thematically analysed. Results revealed that condom use was transient and often unrelated to disease prevention. Condom use was impeded by closer perceived intimacy, gender dynamics, and social stigma against proposing use of condoms in a presumably committed relationship. Public health policies regarding condom, pill and injection pricing / promotion, and religious toleration also hampered condom use, by encouraging a preference over hormonal contraception or proscribing contraceptive measures altogether. The results provide a basis for considering the impact of immediate and wider social contexts on condom use, as proposed by socio-ecological models of HIV risk behaviour.

Keywords: condom use, context, social ecology, South Africa, thematic analysis, university students

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Introduction

In 2010, South African youth aged 15 to 24 exhibited among the highest rates of HIV prevalence in the world (8.7%, versus a global rate of 4.2%), (Country Progress Report, 2012; WHO/UNAIDS/UNICEF, 2011).Young people aged between 20 and 24 years had the highest HIV prevalence rates (13.6%) in the country (Country Progress Report, 2012). Furthermore, South African studies suggest that the prevalence of sexually transmitted infections (STIs), such as gonorrhoea, chlamydia, and trichomoniasis, is high (Country Progress Report, 2012; Johnson, Coetzee, & Dorrington, 2005). STI prevalence is typically high at the time of HIV diagnosis (Kalichman, Pellowski, & Turner, 2011) and STI co-infections facilitate HIV infectiousness through local inflammatory processes (Ward & Ronn, 2010).

Studies identifying and exploring determinants of condom use are important antecedents of safe-sex promotion, but those using university students as participants are scarce in South Africa (Mutinta & Govender, 2012). University contexts appear to offer many opportunities for HIV/STI risk-taking and contraction, with students engaging in a variety of sexual risks, including non-condom use (Huang, Jacobs, & Derevensky, 2010; Kiene & Barta, 2006; Shisana & Simbayi, 2002). Studies (Adefuye, Abiona, Balogun, & Lukobo-Durrell, 2009; Duncan, Borskey, Fomby, Dawson, & Davis, 2002; Jemmott, Heeren, Ngwane, Hewitt, Jemmot, Shell, & O'Leary, 2007) attribute undergraduates' non-condom use to environmental factors, especially alcohol and marijuana use, lack of direct parental supervision; cognitive factors, especially optimistic bias/beliefs of invincibility, hedonistic beliefs, living "in the here and now"; and emotional factors, especially feelings of intimacy and trust.

In addition to proximal contexts, HIV infection is largely shaped by wider social contexts. The social ecology of sexual risk-taking is particularly relevant in South Africa, a nation of about 50 million people of diverse origin, culture, language, and religion. Ecological models postulate that health behaviour is shaped by interactions between individuals and their multiple social environments/contexts (Bronfenbrenner, 1977; Stokols, 1996).

The current study was guided by DiClemente, Salazar, Crosby and Rosenthal's (2005) socio-ecological model of HIV/AIDS risk behaviour, which is an adaptation of Bronfenbrenner's (1977) ecological systems theory (see Figure 1). DiClemente et al. (2005) propose that people operate within spheres of social influence, which shape HIV behaviour. The innermost sphere, the "I", represents person-centred characteristics and inclinations. The next sphere represents family influences. A third sphere of influence is the relational, representing the impact of sexual partner(s), and the next sphere shows the influence of peers and community. The outermost sphere of influence is the wider societal, or, structural, context. Socio-ecological models provide a conceptual research framework but are generic, in the sense that they do not indicate specific constructs to be measured. It is expected that the nature of

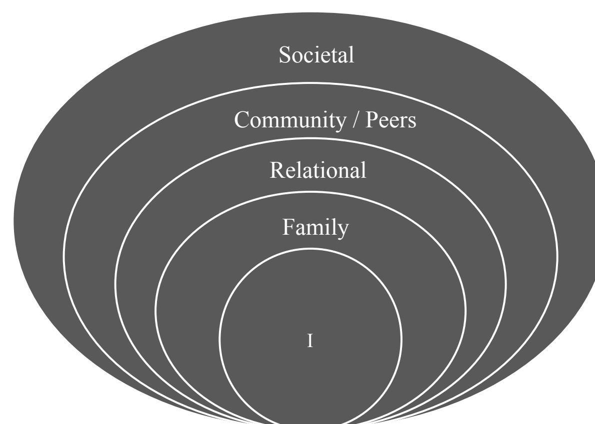

Figure 1. Visual representation of Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1977)

the spheres of social influence will vary, depending on the behaviour and population under investigation.

The South African context

Responding to high HIV rates in the country, the South African government distributes condoms free of charge and ensures that they are easily accessible in many venues, including universities. This notwithstanding, South African surveys (Hendriksen, Pettifor, Lee, Coates, & Rees, 2007; Simbayi, Chauveau, & Shisana, 2004) suggest that only about 57% to 59% of young men and 48% of young women aged 15 to 24, report having used a condom at their last sexual encounter. Moreover, other reports (Country Progress Report, 2012; UNAIDS, 2010) show a decline in HIV-specific knowledge across all age groups, with only 30% of men and 27% of women in the 15-24 age group correctly identifying modes of HIV prevention and transmission.

Gender-based power imbalances and forms of violence towards women (Flisher, Myer, Mèrais, Lombard, & Reddy, 2007; Pettifor, Measham, Rees, & Padian, 2004; Varga, 2003); high-risk sexual practices (Jewkes & Morrell, 2010); relationship characteristics (Protogerou, Flisher, Wild, & Aarø, 2013); high HIV/AIDS stigma (Finchilescu, 2002; Gilbert & Walker, 2010); extensive involvement with religion (Agha, Hutchinson, & Kusanthan, 2006; Garner, 2000) and high religiosity (Aitken, 2005; Protogerou et al., 2013; Zaleski & Schiaffino, 2000); government policies regarding safe-sex and contraception (Giarelli & Jacobs, 2003); and the specific context surrounding intercourse (Kalichman, Simbayi, Cain, & Jooste, 2009; Morojele, Brook, & Kachieng'a, 2006; Scott-Sheldon, Carey, Carey, Cain, Harel, Mehlomakulu, & Kalichman, 2012), have all been found to shape condom use in South Africa.

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Goals of the study

We aimed to explore the immediate and wider context of condom use among a cohort of South African university undergraduates. Specifically, we wanted to find out which family, sexual relationship, peer/community, and societal/ country-level influences may interact to shape individual condom use. We also wanted to find out what aspects of the immediate context (i.e., at the time of intercourse) may shape condom use.

Method

Research design

A qualitative approach (semi-structured interviews) was used to elicit students' perceptions about immediate and wider contextual influences shaping their condom use decisions and behaviours. This qualitative approach was part of a mixed-methods prospective study. The quantitative element (Protogerou et al., 2013) identified socio-cognitive antecedents of this populations' condom use, according to the theory of planned behaviour (Ajzen, 1991). The semi-structured interviews were a research project in its own right, but also a means to ensure accurate questionnaire development for the subsequent quantitative study. Semi-structured interviews are seen as especially suited to the in-depth study of HIV-related perceptions and behaviours, as well as to the exploration of life-style and contextual parameters (Power, 2002). Semi-structured questions provide personal data not easily accessible via quantitative techniques (Braun & Clarke, 2006; van Teijlingen, Simkhada, & Acharya, 2011), and can be used to guide questionnaire development in larger-scale quantitative studies (Power, 2002).

Participants and setting

Twenty undergraduate students aged between 18 and 25 were interviewed (15 female, five male). Seventeen interviewees were sexually active and 3 were sexually inactive (had never had sex). Ten participants reported being in an exclusive relationship, seven were single, and three were dating casually. All students reported being South African, and in particular, eight were White (of European descent), three were Coloured (of mixed race), and nine were Black (of Tsonga, Xhosa, Zulu, and Sotho ethnic backgrounds). Most participants reported being affiliated with some form of Christian denomination, whilst one participant reported being Jewish and one Agnostic.

Data collection

We used a one-to-one, semi-structured, open-ended interview script, derived from a review of the South African literature on condom use and contraception (see Table 1 for a sample of interview questions). Previous engagement with the literature has been found to enhance qualitative analysis, by sensitising the analyst to subtle data features

Table 1. Interview script excerpt

1. In general, how long do you have to be in a relationship before considering it "exclusive"?
2. When you are in an "exclusive"/"non-exclusive" relationship do you use condoms?
3. What is the first thing that comes to mind when you hear about a married couple using condoms?
4. How would you describe a person who always has a condom in their pocket or purse, when they go out to have fun?
5. Let us suppose you met someone you like today and intend to have sex with them. When, approximately, would you discuss safe sex/ condoms?
6. How easy is it for you to discuss safe sex/ condom use with your partner?
7. Would you say that it is you or your partner who decides whether to use a condom?
8. Has it ever happened to you to have sex/ unprotected sex (sex without a condom), when you didn't really want to?
9. Can you think about any possible situations that would make it hard for you to use a condom?
10. Are there any elements in your culture that might influence your safe sex methods/condom use, let's say any beliefs, ideologies, practices?
11. Would you say that you are religious? If yes: would you say that your religious beliefs affect in any way your safe-sex practices/condom use?
12. In your opinion, which safe-sex/contraceptive method is the easiest to obtain in South Africa?

(Tuckett, 2005). Two versions of the interview script were developed for sexually active and inactive students.

Procedure

The study was advertised on an announcement board at the university, where volunteers provided their contact details. Each participant was contacted individually to schedule an interview. Participants had the opportunity to receive course credit in exchange for their participation. To estimate the number of interviews, we aimed for theoretical saturation (i.e., the point where no new data emerge) and, from 10 interviews onwards, we noticed that content was repeated and patterns began to emerge.

Ethics approval was given by the research ethics committees of the Health Sciences and Humanities Faculties of the University of Cape Town. All interviews were carried out by the first author at a university seminar room. Upon arrival, participants were welcomed, received an explanation of the nature of the study, and signed informed consent sheets, which clarified issues surrounding confidentiality, anonymity, and the right to withdraw. Interviews lasted between 16 and 53 minutes (most interviews lasted 30 minutes at minimum), and were recorded via a digital voice recorder and a laptop computer. Upon completion, participants were handed debriefing sheets. Participants' responses were initially transcribed by a professional South African transcriber, and then the first author checked the transcripts against the original audio recordings. Transcriptions were thorough, meticulous, verbatim accounts of all verbal utterances. Participants were given pseudonyms to ensure anonymity.

Data analysis

To extract themes, participant responses were thematically analysed, following the approach and guidelines of Braun & Clarke (2006). Braun & Clarke (2006) have put forward a step-by-step protocol and conceptualisation of thematic analysis as: a research method in its own right; a flexible method that still requires the investigator to be clear and explicit about questions, assumptions, processes and outcomes; and an analytic method applied rigorously to the data. NVivo (version 8) software was used to store, organize, and code the transcripts.

Results

Extracted themes are presented in Table 2. All sexually active participants reported using condoms, to some extent, and all participants thought that condoms offered the best protection against HIV and AIDS. However, as the themes suggest, condom use depended mostly on factors unrelated to disease prevention, and certainly on the interaction between participants and their environments.

Government policies

Participants were exposed to condom-promotion messages from a young age. They believed that in their country, condoms are advertised as the only method against HIV/ AIDS, once sexually active:

> *...it's [condom use] been drilled in your head for many years, I think I was like twelve when they started teaching us and it's now eight years later and it's still in my head "sex without condom equals chance of AIDS".* (Ryan, Black Xhosa, age 20)

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Table 2. Themes representing influences on condom use and representative participant quotations

Theme	Representative quotations
Government policies	*...we used to buy condoms and it was like a hundred rand a box [of 3] and we just think like they should be cheap, but they're not, they charge so much and the government ones are fine but if they really wanna make sure people keep using them they should make a higher quality I mean, they break.* (Brett, Coloured, age 21)
Religion	*…the Catholic Church apparently is against the use of contraceptive measures, so that basically means first of all you should have sex after marriage according to the religion and if you are engaging in sexual intercourse you shouldn't use any contraceptive measures… that would make it impossible to wear a condom in those circumstances.* (Ryan, Black Xhosa, Christina, age 20)
Sex-related stigma	*I don't think it's quite natural to just talk about sex because talking about condom use could also mean you're talking about sex and things like that, usually sex happens spontaneously, so usually it [condom use] will be just spontaneous...* (Kali, White, age 18)
Gender issues	*It's something that I'm struggling with really [negotiating condom use], one time, he said "let's put a condom on" but he didn't, and I wanted to see...I was so mad afterwards because sometimes you can't even feel the condom as a woman, so afterwards, I wanted to see the condom the one that he ejaculated in, the semen, there was nothing.* (Alice, Black Zulu, age 25)
Relationship intimacy	*…I actually would try to avoid using condoms if I could... I guess it feels more intimate for both of us if we don't use them…* (Libby, Coloured, age 19)
Family and school values	*The only thing that would really influence me is just my parents, what they have told me and said to me and made sure that I understand what could happen...so it's just my parents drilling morals into me really.* (Lydia, White, 21)
The heat of the moment	*...you are so wrapped up in the heat of the moment you actually want to complete whatever it is that's going on there...* (Ryan, Black Xhosa, age 20)

Participants indicated that condoms were "everywhere" and understood that, in addition to purchasing condoms in numerous places, condoms were distributed free of charge by the government (i.e., "government condoms"). Participants viewed brand name condoms as very expensive (i.e., approximately R 100 per box of three) and government condoms as of low quality. Brett expressed frustration about the price of brand condoms and mistrust about the quality of free government condoms:

> *...we used to buy condoms and it was like a hundred rand a box [of 3] and we just think like they should be cheap, but they're not, they charge so much and the government ones are fine but if they really wanna make sure people keep using them they should make a higher quality I mean, they break.* (Brett, Coloured, age 21)

Female participants mentioned that hormonal contraception is as easily available as condoms, and moreover, it might be cheaper, or free of charge. Lily's words showed that hormonal contraception is an easy and affordable option:

> *You can either get the pill for free from, I know at UCT [the University's initials], they will provide you with the pill for free, but I think it's best to go to a doctor, however they won't be free but it's really easy to get it, currently I go to my doctor and she just gives me three months for it and I don't have to keep coming back for it, it's just a case of making an appointment.* (Libby, Coloured, age 19)

Other than condoms, pills and hormonal injections, participants did not mention using any other contraceptive/safe-sex method. The interviewer asked female participants who were struggling to negotiate condom use, if they would consider using the female condom. None of the interviewees was familiar with the method:

> *I don't even know how it [female condom] looks.* (Alice, Black Zulu, age 25)

Religion

Nearly all participants (95%) argued that religion played an important role in their lives. Most participants belonged to a Christian denomination, read the Bible (alone or in study groups), went to church regularly, and took their religion into account when making everyday decisions. Christian interviewees were clear that Christian denominations prohibited premarital sex, as well as contraception.

> *...the Catholic Church apparently is against the use of contraceptive measures, so that basically means first of all you should have sex after marriage according to the religion and if you are engaging in sexual intercourse you shouldn't use any contraceptive measures…that would make it impossible to wear a condom in those circumstances.* (Ryan, Black Xhosa, Christian, age 20)

Based on these prohibitions, three interviewees were sexually inactive, aiming to abstain until marriage. Sexually active participants (85%) had contemplated the dissonance between religion and sexual activity, and were trying to come to terms with going against fundamental religious principles. When asked about how their religion or religious beliefs might impact sex and condom use, participants appeared conflicted and uncertain. Nicole discussed in length about how her religious beliefs were incompatible with her having sex, expressing a sense of distress:

> *...you know when having sex, it's not a relief bringing religion into it, I guess when in that space, when I am about to have sex I kind of dissociate the religion and because of the clashes with the religion and what I'm doing, so there's no religious influence in condom use.* (Nicole, White, Roman Catholic, age 22)

Participants had various interpretations about what "believing in God" entailed and how it related to safe-sex. Some participants put forth the notion that condoms could not be used at times because God would eventually provide protection against illness:

> *I believe in God, I believe that He is protecting me cause even now like I always attribute the fact that I haven't contracted any diseases at the moment, it's pure luck and the fact that He's watching over me…* (Alice, Black Zulu, Christian, age 25).

Guided by previous research, we expected to find stigma attached to having HIV, to condoms, and to condom negotiation and use. What we found was stigma attached to the sexual act itself, to the intention to have sex, as well as to female sexuality. For example, such stigma emerged when participants discussed when and how they would negotiate condom use. All but two participants (90%) would not have a discussion, prior to intercourse, about when or if to use a condom. Most participants would wait up until the moment of intercourse to mention a condom, or hope that their partner might have one and use it, without much discussion. Kali expressed reservations about discussing condoms before intercourse, as this would go against the "spontaneous nature" of the act:

> *I don't think it's quite natural to just talk about sex because talking about condom use could also mean you're talking about sex and things like that, usually sex happens spontaneously, so usually it [condom use] will be just spontaneous.* (Kali, White, age 18)

Most participants (65%) attached stigma to the habit of carrying condoms all the time (e.g., in a wallet), because this would suggest having prepared for intercourse. Lydia and Adam were particularly disconcerted with the idea of habitually carrying condoms around:

> *Firstly, I'd be a bit taken aback if they were sort of planning for it [sex], which I don't really agree with...I'm hoping that their intentions are not like a plan...* (Lydia, White, age 21)

> *...it sounds like you are a loose cannon, it looks like you are just a loose person who's just ready for sex wherever.* (Adam, Black Zulu, age 19)

Compared to women, male participants saw women who carried condoms in a less favourable light, and even voiced concerns that such a practice might prove dangerous. Brett thought:

> *...maybe it [carrying condoms] will have repercussions on her, the way people view her, the way people interact with her … I mean I think many guys are quite intimidated by strong empowered women and also they fear them, and this may lead to some form of hostility, so I think I think these are some of the dangers that women face.* (Brett, Coloured, age 21)

In determining which safe-sex method would be the easiest to obtain in South Africa, several female participants (47%) took into consideration issues of embarrassment. These female participants pointed out that whilst condoms were the easiest to access, buying them could be embarrassing, and thus hormonal contraception could be the preferred

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option. Ella indicated that she would probably be more comfortable purchasing hormonal contraception.

I think condoms are the easiest, I mean you can find them on campus, they hand them out, it's easy enough to provide over the counter, you don't need a prescription...but for me going to a pharmacy to get the pill is maybe a little easier, emotionally, because I can say it's for my hormones. (Ella, Black Xhosa, age 20)

Such answers reflected stigma attached to being sexually active (especially if female), and to being intentionally prepared for the sexual act itself, rather than stigma attached to purchasing/using/negotiating condoms.

Linking to the previous theme, it seemed that religion, or "the church" was instrumental in stigmatising the sexual act, by forbidding premarital sex and contraception. It seems that the stigma attached by religion to sex/sexuality is fundamental, not only underscores safe-sex decision making, but also, gender-based power imbalances. Rosie practiced abstinence, in accordance with her religious beliefs. For her, abstinence meant that she relinquished control over her body and sexuality, passing it to her future husband, who would own her:

...based on my religion, I'm firstly waiting for marriage to have sex... so, ja my body it's not actually mine and it belongs to my future husband, basically, so it's not mine to just go and use it like that really. (Rosie, Black Sotho, believes in the Bible; age 18)

Gender issues

Gender dynamics and imbalances emerged. Specifically, all men reported that the decision to use condoms would be up to them but female responses varied. Half of female participants (50%) stated that, in the context of their intimate relationships, they were "unsure" who decides to use a condom, while the rest believed that "both" partners decide, or that "he" decides. Libby seemed uncertain about how and if she would bring a condom into the picture, but was clear that her partner would have more power initiating condom use:

I would say my partner most of times [decides on condom use] like, I tried to avoid being the one to say "can we use a condom", I'd wait for them to make the decision first... if they decided not to [not use a condom], let's say if we were in the moment I wouldn't rip out the condom and say let's use one, I'd see whether he did first...if the guy didn't want to, it would be hard to use it. (Libby, Coloured, age 19)

No female participant mentioned that the decision to use condoms would be completely up to her. Female participants appeared to be aware of the power imbalances at play, and felt they had to work hard, and often fail, to persuade their partners to use condoms. This was demonstrated in Alice's words:

It's something that I'm struggling with really [negotiating condom use], one time, he said "let's put a condom on" but he didn't, and I wanted to see...I was so mad afterwards because sometimes you can't even feel the condom as a woman, so afterwards, I wanted to see the condom the one that he ejaculated in, the semen, there was nothing. (Alice, Black Zulu, age 25)

In the context of imminent intercourse, Eva discussed the challenges of balancing negotiating condom use without alienating her partner:

...if it's someone you really like but you're nervous around and he now wants to have sex with you, then you think you don't want to chase him away or you don't want to put him off, so to now ask for condoms you know, "should I, shouldn't I", and then usually whilst you're thinking things end up happening and you kind of like, oh well, can't do anything about it now. (Eva, White, age 20)

Most participants (70%) felt that their peer group would approve of a female friend directly asking a man to use condoms, yet some concerns were raised by both genders. Ryan said:

...I think it would be kind of weird if a girl did that [ask a man to use a condom] in our group of friends because we are, as a group of friends, quite judgmental of such things, you know, a woman isn't supposed to do that but she's still supposed to be safe. (Ryan, Black Xhosa, age 20)

When asked whether her friends would approve of a woman openly negotiating condom use, Kali's words also conveyed some judgment:

Yes, yes it's acceptable, even though me and my friends don't really talk about such things, but I think it would be acceptable. (Kali, White, age 20)

All sexually active female participants (but no men) reported occasionally having intercourse when they did not want to, but clarified that they were not coerced or raped. Rather, unwanted intercourse occurred when female participants were not sexually aroused, tired, but still not comfortable enough, or skilled enough, to communicate their needs. Libby's words reflected this situation well:

...I don't want it to look like rape, I've never had that, but once or twice in the morning I'm really tired and he wants to do it and we do do it, but I don't really want to, cause I'm sort of not really into it... why I do that? I don't really know, I guess I know it's not gonna last a long time, I just figure "well it's gonna be over in like two minutes' and it keeps everyone happy. (Libby, Coloured, age 19)

Finally, four female participants (26%) reported experiencing intimate partner violence. Only one of those instances constituted extreme physical violence (the female participant was being hit by her partner until a neighbour intervened), whilst the other three were cases of verbal aggression. All participants reported that these instances of violence (verbal or physical) resulted in less sexual experimentation and more condom use, indicating that condom use can be increased when intimacy/trust is low. Zoe pointed out how a fight with her boyfriend reduced trust but increased precaution:

...now [after experiencing verbal and physical violence] we no longer want to try that whole adventurous thing, you just wanna keep it safe all the time, I told him, now I don't wanna trust you... (Zoe, Black Tsonga, age 24)

Relationship intimacy

Throughout the interviews, it was clear that participants strived for intimacy within their sexual relationships. Female participants in particular, saw condom use as incompatible with, or even a threat to, achieving intimacy. In relationships where trust and intimacy were highly valued, safe-sex was seen in terms of contraception and condoms were used to prevent pregnancy. In deciding condom use, Libby showed how intimacy and pregnancy concerns play an important role:

...I actually would try to avoid using condoms if I could... I guess it feels more intimate for both of us if we don't use them…the pill has basically been the thing that's made a difference because before we used to use condoms quite

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religiously, because I really don't wanna be pregnant. For some reason, for me pregnancy is more of a scare than sexually transmitted diseases because of the trust that we have. (Libby, Coloured, age 19)

Most female respondents (66%) held mixed or negative views towards condom use in the context of intimate relationships, essentially linking condoms infidelity. Tasmin offered:

...the man is probably sleeping around...the men is always out there doing some funny things...so I guess, partly, they would've found out something, some features about each other...so it [condom use in exclusive relationships] is lack of trust, but it can also be trying to take care of one another... (Tasmin, Black Xhosa, age 19)

Male and female interviewees agreed that condoms would be acceptable in intimate relationships, if those would be used to prevent pregnancy in healthy couples, or to prevent HIV/STI spread in discordant couples:

I do agree with married couples wearing the condoms sometimes if they're not taking any other precautionary methods, but I'd like to think that the condom is rather to avoid unexpected pregnancies ... or if one of the partners is indeed infected with a disease, it's not the end of the world, then it's good... you're still giving your partner pleasure and you're still getting pleasure from your partner. (Tyler, Black Zulu, age 19)

Male participants did not mention that condoms would necessarily threaten intimacy. For them, condom use was mostly a necessity, due to living in an AIDS-infected society. All male participants appeared as staunch supporters of condom use in their intimate relationships, and even claimed that they would use condoms when married. Ryan argued:

I know people would think about the issue of trust, I maybe do trust the person but it's not about trusting, I think, it's just that we live in a time where HIV especially in South Africa is such a huge thing, and you can't really afford to slip up anywhere, you know, even when I get married, I've decided, I think, I'm going to have to use them [condoms] so, I think exclusive or not exclusive, condoms all the way. (Ryan, Black Xhosa, age 20)

Female interviewees who reported struggling with issues of (mis)trust (33%) reported being somewhat mismatched with their partners, demographically. These female interviewees mentioned that, compared to them, their partners were: older (by about 10 years); less educated; living in a different province; living in a non-urban setting, such as a rural township; and / or of a different racial/ cultural background.

Family and school values

Condom use appeared to be heavily influenced by the values of family and school. Family and school environments were intertwined, as parents would typically choose schools based on their own values, religion, and culture/ race. Lydia and Megan explained how their family and school environment played a role in their safe-sex choices:

The only thing that would really influence me is just my parents, what they have told me and said to me and made sure that I understand what could happen... so it's just my parents drilling morals into me really. (Lydia, White, age 21)

I went to a Jewish school...it was quite a liberal school I think in terms of safe sex education and they were quite open about that, but I think, you know, my mother, I'm quite open with my mother about my sexual history so...I think it's just the fact that they've educated me enough is enough. (Megan, White, age 23)

Relevant to this, we asked participants to think about their respective cultural/racial backgrounds and identify elements that might influence their condom use. All participants, including those who were brought up in traditional, male-oriented African communities, believed that, ultimately, condom use would be up to them, and the immediate situation/context they would find themselves in. Ryan's words offered insight into the richness of South African cultures, suggesting that culture can be fluid and adaptable to the needs of the person:

My family's a kind of a very alternative "diluted" form, we are proud of who we are and we do some of the cultural things but we have added our own sort of, some would say western, I would say more advanced things to the culture... we've added on some values that really would help preserve our family and ourselves so, condoms, it's something that we really endorse. (Ryan, Black Xhosa, age 20)

Libby downplayed the power of "culture" in favour of personal responsibility and choice:

...from experience and friends and just general family, I think it's down to the person. I don't think it's about culture because I think of people from all [South African] cultures who make stupid decisions and people that are very safe. (Libby, Coloured, age 19)

Alice also indicated that traditional, long-lived cultural norms were changing, allowing for personal choice, empowered by education, to prevail:

...as an African Zulu woman, you feel obligated to respect, and trust me people have their own versions of respect, and you must be humble, respect your man and you know always just serve him...sometimes you feel like it's too much to ask of him to use condoms and what not but it's slowly changing...things are changing for township urban women... now that I'm at Varsity he sort of respects me more...now I can stand up and say this [use condoms] to him because I have my knowledge. (Alice, Black Zulu, age 25)

The heat of the moment

The "choreography" of intercourse itself seemed to play a decisive factor in terms of using condoms. Values, personal choice, and responsibility were often overridden by intense emotions surrounding, or at the time of, intercourse. Heightened sexual pleasure/arousal was also:

...you are so wrapped up in the heat of the moment you actually want to complete whatever it is that's going on there... (Ryan, Black Xhosa, age 20)

More interestingly, perhaps, female participants discussed how negative emotions, and in particular, sadness, depression, and anger, could facilitate sexual risk-taking and non-condom use. Unplanned and/or risky sexual activity seemed to provide an outlet for emotional distress. Tasmin gave examples of unforeseen, random events, which would cause feelings of depression and carelessness:

...you're sort of disturbed about certain things, like you're quite sad about something, maybe somebody close to you died and you're feeling very emotional, and you're irrational about decision-making and things like that, so you might end up being sexually interacting with this person... and you probably will engage in sexual activity but not even think about the consequences. (Tasmin, Black Xhosa, age 19)

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Similarly, Eva discussed how sadness or disappointment could lead to unsafe sex, and, moreover, suggested that non-condom use could be exchanged for receiving affection:

> *If I had a huge fight with my parents or with someone I know...or some of my friends, they have a huge fight with their parents or they've failed a test and they feel really bad about something and then they go see one of their guy friends and then they're [the guy friends] consoling them and comforting them, and…he is obviously looking after you caring for you, if there's no condom, well it's ok because you feel bad and he's trying to cheer you up.* (Eva, White, age 20)

Discussion

Our interviewees thought that condoms were the "best" protective method against HIV and AIDS, but condom use typically depended on factors unrelated to disease prevention. Ultimately, and as the socio-ecological model of HIV/AIDS risk behaviour described by DiClemente et al. (2005) would suggest, condom use resulted from the influence and interaction between the person and their distal and immediate contexts. As hypothesised by the model, individual condom use was shaped by wider societal influences, community and peer influences, relationship and partner characteristics, and family upbringing.

The societal sphere

Findings point to governmental policies that might, inadvertently, pose obstacles to condom use. One policy pertains to promoting condoms for HIV/AIDS and hormonal contraception for pregnancy, whilst providing both methods free of charge. Essentially, this approach dichotomizes safe-sex methods, linking condoms to disease prevention and hormones to pregnancy prevention. Given that sexual partners are driven by intimacy and security concerns, preference might be given to hormonal contraception, thus increasing the risk of STI contraction. The stigma attached to preparing for sex may also lead to choosing a hormonal method over condoms, especially since hormonal contraception is easily obtained (by women) and free of charge. At the same time, free government condoms have acquired a notorious reputation for being low quality, and brand name condoms for being too expensive to be used consistently.

Both religion and secular concerns influenced perceptions of condom use among participants. Participants' involvement in the Christian religion, as well as the emergence of gender-based power imbalances, prompted us to consider potential obstacles to condom use caused by toleration. Toleration is typically understood as allowing different groups to practice their religion, as is, and without judgement (Raday, 2003). Toleration reinforces the status quo by requiring almost indiscriminate acceptance of existing hierarchies, practices, and customs, regardless of adverse consequences to the weak (Raday, 2003; Stopler, 2008); as such, it carries risk for HIV infection for the students.

Participants perceived their religion to proscribe condom use. It was clear from sexually active participants' talk that their religious beliefs clashed with having intercourse, with guilt and unease experienced as a consequence. Christian denominations, like monotheistic religions in general, prohibit premarital sex as well as contraception once married, ascribing intercourse for procreation purposes only. Moreover, Christian doctrines can be interpreted in ways that justify female subordination. This carries risks for HIV/STI contraction. Research has consistently indicated that in religious, patriarchal countries, women with violent or controlling partners are more likely to be infected with HIV (Dunkle, Jewkes, Brown, Gray, McIntyre, & Harlow, 2004; Jewkes & Morrell, 2010). Furthermore, in sub-Saharan African countries, young married women have been found to be at higher risk for HIV contraction, compared to unmarried sexually active women (Clark, 2004). Thus, non-condom use in marriage, as prescribed by religion, is not necessarily an effective HIV/STI prevention strategy.

The community and peer sphere

Male participants had more favourable attitudes towards condoms and their use, and were less worried about condoms interfering with relationship trust. Female participants stated that their male partners had more power in the relationship, in terms of deciding whether condoms would be used, and when intercourse would occur. A small number of female interviewees had experienced physical and/or verbal violence from their partners, although those instances were not many. Whilst most female participants mentioned having to make an effort to persuade their partners to use condoms, our male participants claimed that condom use was more of a habit. It may be that this pro-condom attitude among our male sample was influenced by their education level, as well as by living in a city where attitudes and access to condoms are optimal (Hargreaves, Bonell, Boler, Boccia, Birdthistle, Fletcher, & Glynn, 2008). Female interviewees who struggled most with issues of trust and condom use negotiation tended to be mismatched with their partners in terms of age, education, cultural background, and location of residence. Thus, gender power imbalances between partners may also be a reflection of additional imbalances, such as coming from/ living in different communities and having different life goals and values (Chimbindi, McGrath, Herbst, Tint, & Newell, 2010).

Even though our male participants held favourable attitudes towards condoms, they voiced reservations about women carrying condoms and negotiating their use. Female participants, too, held mixed feelings about people who habitually carry condoms when they go out. Essentially, a woman carrying condoms was seen as tipping established gender inequalities, a situation that could add strain to the (already precarious) male-female relationship. Such references sensitized us to the existence of sex-related stigma.

Participants perceived condoms to be widely available and easily accessible, although purchasing them was embarrassing, especially for female participants. Efforts were made, especially among women, not to be, or appear to be, prepared for intercourse. Purchasing, carrying, and negotiating condom use was embarrassing because it essentially meant preparing for sex. Discussing condoms would mean discussing intercourse, which would clash

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with idealized notions of romance, prescribing intercourse to happen spontaneously. We argue that what underscores a substantial amount of non-condom use is the stigma attached to sexual behaviour and sexuality, which translates to feelings of shame and embarrassment linked to the sexual act, per se.

The relationship sphere

Participants saw condom use as transient, endorsed until trust and intimacy were reached, or as an added layer to pregnancy prevention (e.g., using condoms in "fertile" days or when the pill was missed). Previous research suggests that achieving intimacy through non-condom use is primarily relevant in exclusive relationships (Bowleg, Lucas, & Tschann, 2004; Manlove, Ryan, & Franzetta, 2007; Protogerou & Turner-Cobb, 2011). However, participants' words reflected the need for intimacy in all types of relationships, not just exclusive ones, and casual relationships were seen as potential future exclusive relationships. What underlay and motivated sexual intercourse was the desire to experience some form of closeness with the other person, and condoms were seen as obstacles to closeness, regardless of relationship "status".

The family sphere

Participants viewed their "background" mostly in terms of their "family" background, and acknowledged that their family values and beliefs had influenced their condom use decisions. Specifically, parents were instrumental in shaping favourable attitudes towards condoms, when they had created a home environment wherein sexuality, safe-sex, and consequences of unsafe sex were openly discussed. Parents further facilitated condom use when they had chosen schools that provided safe-sex education and allowed for "liberal" attitudes towards condoms. Family and school values tended to be aligned. In addition, parents enabled condom use when they preserved elements of old, traditional rearing styles, but also incorporated Western elements of modernity and individuality.

Finally, participants pointed out that sadness and depression, stemming from situations such as having a fight with a friend or parent, and failing a test, could lead to sexual risk-taking, including non-condom use. Depression has been linked to self-harm, sexual risk-taking, and STIs (Bender, 2006). Specifically, depression may impair cognitive and emotional functioning, reduce motivation, and increase hedonistic and fatalistic thoughts (Khan, Kaufmann, Pence, Gaynes, Adimora, Weir, & Miller, 2009), states that may well inhibit HIV risk perception. Depression is also linked to substance use, which is a consistent correlate of non-condom use (Rao, Hammen, & Poland, 2009).

Study Limitations

Although this study has provided useful information about the social ecology of condom use by South African undergraduates, it does have limitations. The study gathered information from a small number of Humanities (mostly Psychology) students at a single university, and had an imbalanced male-female ratio. Consequently, participants of this study are not representative of South African university students, in general. Further qualitative work is necessary, with larger samples, from more South African universities and departments, in order to generalise data on "South African university undergraduates", with confidence.

Conclusions

Despite high awareness of HIV/AIDS rates, condom use is not entirely embraced among young South Africans. Proximal and distal contextual influences on condom use have been previously documented. This study elucidated the social ecology of condom use behaviour in a group of South African undergraduates, adding to the literature which has focused more on person-centred variables. Our findings indicate that HIV prevention strategies could focus on two primary contexts. On the country / policy-level, strategies could include: lowering brand name condom prices; making hormonal contraception less accessible or promoting condom use along with hormonal contraception; and ensuring that toleration is not understood as "accepting gender-related or other inequalities". On the individual level, safe-sex interventions could include behaviour change techniques emphasising relationship issues, such as intimacy issues, gender dynamics, emotion management training, and communication or negotiation skills-training. Our findings further identify the university as an appropriate setting for condom promotion efforts. The setting, or place of HIV-prevention intervention, is key. The implication of strategies taking place in schools, universities, church and neighbourhood settings, is that the whole community will appear to be endorsing HIV-prevention. A multi-centre approach might also address HIV and sex-related stigma.

Acknowledgements

We would like to thank Cathy Mathews (Health Systems Research Unit, Cape Town Medical Research Council; School of Public Health and Family Medicine, and Department of Psychiatry and Mental Health, University of Cape Town, South Africa) for her comments on an initial version of the manuscript.

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