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Gender inequalities, intimate partner violence and HIV preventive practices: findings of a South African cross-sectional study

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Abstract

The aim of the paper is to investigate associations between a range of markers of gender inequity, including financial, psychological and physical violence, and two proximal practices in HIV prevention, namely discussion of HIV between partners and the woman suggesting condom use. The paper presents an analysis of data from a cross-sectional study of a representative sample of women from three South African Provinces which was primarily undertaken as an epidemiological study of gender-based violence. A multi-stage sampling design was used with clusters sampled with probability proportional to number of households. Households were randomly selected from within clusters. One randomly selected woman aged 18–49 years was interviewed in each selected home. One thousand three hundred and six women were interviewed (90.3% of eligible women). One thousand one hundred sixty four women had a partner in the previous year and were asked questions related to HIV prevention and gender inequalities in the relationship. The results indicate that discussion of HIV was significantly positively associated with education, living in Mpumalanga Province, the man being a migrant, the woman having multiple partners in the past year and having no confidante. It was significantly negatively associated with living in the Northern Province, the relationship being poor and there being a substantial age difference between partners. The woman suggesting condom use was significantly positively associated with her education, her having multiple partners, domestic violence prior to the past year and financial abuse. It was negatively associated with the relationship being poor. We conclude that this suggests that some indicators of gender inequalities are significantly associated with discussion of HIV and condom use but the direction of association found was both positive and negative. This highlights the need for a more nuanced understanding of gender inequalities and their relationship to HIV risk. Suggestions for key research questions are made. © 2002 Elsevier Science Ltd. All rights reserved.

Keywords: HIV; Gender; Intimate partner violence; South Africa

Introduction

Gender issues are increasingly being recognised as having critical influences on the HIV epidemic in Southern Africa (UNAIDS, 2000). In her key note address at the XIIIth International Conference on AIDS

in Durban, Rao Gupta described ways in which gender shapes HIV risk (Rao Gupta, 2000), arguing that the gender power imbalance, which is found to a varying extent in all societies, translates into a power imbalance in sexual interactions which increases vulnerability to HIV. For women social norms defining their acceptable behaviour, characteristics and responsibilities, economic dependency, and violence make them vulnerable, whereas ideals of masculinity associated with risk taking and sexual conquest also create vulnerability in men.

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Maman, Campbell, Sweat, and Gielen (2000) presented a very comprehensive summary of the literature describing intersections between HIV and violence against women, but this also served to highlight the relatively small size of the body of literature. At the time of their review they only identified four quantitative studies reporting on violence limiting women's HIV protective behaviours. Qualitative research on gender and HIV prevention (e.g. Campbell, 2000; Wilton & Aggleton, 1991; Wood, Maforah, & Jewkes, 1998) has shown how gender inequalities influence HIV risk, and has enabled women's voices to be given prominence, yet the methods also have limitations. In particular, they do not enable measurement of the prevalence of forms of gender inequity, the strength of association with HIV and HIV risk practices, and the relative importance of different forms of gender inequality. A study of the epidemiology and consequences of violence against women in three South African Provinces included some questions on proximal HIV preventive practices as well as many markers of gender inequity, including intimate partner violence. This data set provides an opportunity to investigate some of these questions. The objectives of this paper are first to describe associations between a range of markers of gender inequality, including intimate partner violence, and two proximal practices in HIV prevention, namely discussion of HIV and the woman suggesting condom use. Secondly, to discuss the implications of the study's findings for research agendas on gender and HIV risk in Africa.

Gender and HIV risk in South Africa

In South Africa, research on sexuality has shown multiple ways in which ideas about sex and gender create circumstances of greater HIV risk (Varga, 1997; Harrison, Xaba, & Kunene, 2001; Wood et al., 1998; Wood & Jewkes, 2001; Campbell, 2000; MacPhail & Campbell, 2001). Condemnation of pre-marital (particularly young) women's sexual activity creates barriers to the adoption of preventive practices because of the reluctance of young women to make a statement to themselves, as well as to others (e.g. through purchase of condoms or a visit to a clinic), that they are sexually active (Wood, Maepa, & Jewkes, 1997). Adults may be reluctant to provide information about sex for fear of encouraging sexual activity (Wood et al., 1997). Within sexual relationships, women are usually expected to give priority to their partners' needs and wishes. Thus, women often decide not to ask men to use condoms, or having asked decide not to persist in asking, because of concerns about men's sexual pleasure (Wood, 2000). Often women find that they cannot discuss sex openly with their partners, including asking for condom use, for fear of appearing promiscuous (Varga, 1997).

The low status of women in society overall is compounded by being single. The social worth of women is 'proven' through the ability to have (and keep) a male partner, in addition to the possible economic benefits of this relationship (Campbell, 2000). In a society where having multiple partners has been a defining feature of successful manhood (Varga, 1997), single women are regarded as potential usurpers and are relatively socially isolated (Mager, 1999). With high stakes attached to having a partner (even a shared partner) and a prevailing climate of multiple partnerships, there is an ever present fear of abandonment. Many women would find dictating condom use or sexual refusal under such circumstances to be difficult.

In many societies women are constructed as inherently 'unclean' or vulnerable to 'uncleanliness' at particular times, e.g. during menstruation. These ideas are also highly prevalent in Southern Africa where dirtiness or pollution is a dominant pathological process in indigenous health systems (Jewkes & Wood, 1999). Ideas of pollution conflate dirt from sorcery, physical dirtiness and moral 'dirt'. Recent research has highlighted the gendering of constructions of STDs in South Africa held by both men and women (Simbayi et al., 2000), with prevalent ideas that women are repositories of sexual (physical and moral) dirt. Thus condom use is seen by men as unnecessary with a woman who is morally clean, as she would not be harbouring risk of disease. Such women are then placed at greater risk of infection.

Economic needs and dependency put women at further risk of HIV (Wojcicki and Malala, 2001). Sex in Africa is widely viewed as a resource of women and seen in terms of reciprocity (Caldwell, Caldwell, & Quiggin, 1989). So, for example, after a night together it is quite common for a woman to be left money for cosmetics by her boyfriend (Nduna personal communication). Economic vulnerability reduces women's ability to dictate the terms of this exchange, making them more dependent on the presents, as well as making it more likely that women will cross cultural norms into the realm of sex work. School girls who may be terrified of burdening their parents with the cost of extra fees if they fail a year are vulnerable to sexual harassment and exploitation by their teachers in exchange for marks (Omaar & de Waal, 1994; Niehaus, 2000). Many are also attracted to relationships with wealthier older men (Vundule, Maforah, Jewkes, & Jordaan, 2000), which partially explains gender differences in age-specific HIV prevalence in South Africa. Economically vulnerable women are highly dependent on men's financial contributions and are thus less likely to succeed in negotiating protection and less likely to leave relationships that they perceive to be risky.

Maman et al. (2000) argue that violence against women makes women vulnerable to HIV through three main mechanisms. First, forced or coercive sexual

intercourse with an infected partner can directly result in HIV transmission. In some cases, young girls are targeted for rape because of the belief that sex with a virgin will cleanse a man of infection (Leclerc-Madlala, 1997). Secondly, women may fear that asking their partner to wear a condom will result in violence (Weiss and Rao Gupta, 1998; Wingood and DiClemente, 1998; Wood, 2000). Suggesting condom use may be seen as tantamount to implying or admitting infidelity as condoms are associated with prostitution, promiscuity and disease or an implicit challenge to a male 'right' to have many women (Worth, 1989; Wood, 2000). Finally, experiences of sexual violence, particularly sexual initiation and child sexual abuse,¹ have been associated with early sexual debut, drug and alcohol use, more sexual partners, trading sex for money and drugs and less contraceptive use (Felitti et al., 1998; Fergusson, Horwood, & Lynskey, 1997; Fiscella, Kitzman, Cole, & Sidora, 1998; Handwerker, 1993; Walker et al., 1999; Jewkes, Vundule, Maforah, & Jordaan, 2001). In South Africa, added to these is that fear of abuse contributes to the common practice of women taking a new partner whilst maintaining the old one (Wood & Jewkes, 2001).

Methods

The study was cross-sectional, with research undertaken in three of the country's nine provinces, the Eastern Cape, Mpumalanga and the Northern Province. These were chosen for reasons related to research logistics. The sampling frame consisted of the enumeration areas demarcated for the 1996 Census; these were treated as clusters. Each province was stratified into urban and rural areas. Clusters were sampled with probability proportional to the number of households in the cluster. In the urban areas, 14 households were randomly selected in each cluster and in rural areas, 28. Within each province the sample was approximately self-weighting. The sample of enumeration areas were drawn at random. Two thousand two hundred thirty two households were selected for interviews: 728 in the Eastern Cape, 748 in Mpumalanga and 756 in the Northern Province. One randomly selected woman aged 18–49 years was chosen from each and no substitution was used if a visiting point did not contain a dwelling or a woman of the right age. Three attempts were made to contact each woman.

The questionnaire collected information on social and demographic characteristics of the women, attitudes towards and experiences of abuse, service use and health questions. A schedule of questions was completed on characteristics of the woman's main partners in the past

year and the quality of the relationship. Most women only reported one partner, but if two were reported the most established partner was used for this analysis. This schedule included questions on whether the couple had ever discussed HIV and whether the women had suggested condom use to the man and what happened. The questionnaires were administered in the first language of the interviewee. Women were asked about experiences in the past year of different forms of physical violence, using multiple, action-specific questions (Jewkes, Penn-Kekana, & Levin, in press). They were asked about whether they had ever been slapped, punched, beaten, kicked, bitten, choked, burnt, or threatened or injured with an object or weapon by an intimate partner (defined as a current or ex-husband/boyfriend), including in pregnancy. Questions were included on past year financial abuse, which was defined as having not being given money to run the home when her partner had money for other things or having her earnings taken by her partner. The prevalence of and risk factors for intimate partner violence have been described elsewhere (Jewkes et al., in press; Jewkes et al., 2001).

The study followed the principles of the WHO guidelines for domestic violence research which were explained verbally to the study team (WHO, 1999). Safety and ethical issues have been described in detail elsewhere (Jewkes, Watts, Abrahams, Penn-Kekana, & Garcia-Moreno, 2000). Ethical approval for the study was given by the Medical Research Council's Ethics Committee.

The data were entered onto a database in the epidemiological package Epi Info and then validated through a second entry. Data analysis was carried out using the statistical package Stata (Statacorp, 1997). Two response variables were considered: whether or not the woman had ever discussed HIV with her partner of the past year; and whether or not the woman had suggested condom use to him. The prevalences of these responses were estimated, together with 95% confidence limits, using the survey estimation procedures in Stata which take into account the stratified multistage design used in the sampling.

Model building

The question for each response was: which are the most important factors determining whether or not a woman discussed HIV or suggested condom use? The approach was to fit multiple logistic regression models with a pool of candidate explanatory variables, while allowing for the sampling design and interviewer effects (explained below). The candidate variables included demographic characteristics, variables indicating greater risk of HIV, and indicators of gender relations between the partners. The model with all explanatory variables

¹The terms 'abuse' and 'violence' are used interchangeably in this paper.

was fitted and then explanatory variables were removed in a backward elimination approach, maintaining variables which were significant at least at the 10% level. There are two methods of allowing for the clustering of units in a complex multistage design, namely the aggregated approach (which is in the tradition of descriptive survey analysis and produces the same parameter estimates as a conventional independent-observation analysis, with standard errors adjusted to take into account the clustering) and the disaggregated approach (which is in the statistical modelling tradition and adjusts for clusters as random effects by fitting a linear mixed model or multilevel model) (Skinner, 1989). The more robust aggregated approach was used to identify explanatory variables required in the model; once this was done a generalised linear mixed model (GLMM) was fitted. In such a model both cluster and interviewer can be accommodated as random effects; however, full (marginal) maximum likelihood required numerical integration of the likelihood function. This is easily done for a single random effect using the *xtlogit* command in Stata; for two or more random effects an approximate method such as penalised quasi-likelihood is required. Such methods are known to produce downwardly biased estimates of fixed effects (Rodriguez & Goldman, 1995; Engel, 1998). Thus models were fitted separately allowing for either cluster or interviewer as random effects; since the cluster effects were much larger than the interviewer effects, the final models fitted were GLMMs with only cluster as random effects.

Results

Of the 2232 households selected for interview, 1447 had eligible women (the others were vacant or had no eligible woman). Forty women declined to be interviewed or only completed part of the interview and 101 women were uncontactable after three visits. Thus 1306 interviews were completed, a 90.3% response rate. In all, 1164 women reported having had a husband or boyfriend in the past year, these were the only women asked about discussion of HIV and condoms, the subsequent analysis is based on this group.

The proportion of couples who had discussed HIV was 39.2% (95% CI 35.2–42.9). In almost a third of relationships women had suggested using condoms (31.2% (95% CI 27.8–34.8)). The most common response was that the man agreed to use them (44% of cases). The next most common reaction was to say that he did not like them (36%). In 2% of cases, the woman was accused of infidelity. None of the women said that they were beaten but one was threatened with violence. None were made to leave but in one case the man threatened to leave.

Table 1 shows the demographic and relationship characteristics of women who did and did not discuss HIV with their partner of the last year. Ninety-eight per cent of the total sample were Black Africans, which reflected the demographic characteristics of the provinces studied. Women who discussed HIV with their partners were younger, closer in age to their partner, more likely to be unmarried or if married not to have only had a traditional wedding, more highly educated, their partners were more highly educated, more likely to have a migrant worker as a partner, more likely to live in Mpumalanga and less likely to live in the Northern Province. These women were more likely to feel that their relationship was good, but also to have no one to talk with about relationship problems. They themselves were more likely to have had more than one partner in the past year, but also to believe that their partner had no other women. However, if their partner had other girlfriends he was more likely to boast about them to her or bring them home. They were less likely to have been physically or financially abused in the past year, but equally likely to have experienced violence at some stage in her life.

Table 1 also shows the demographic and relationship characteristics of women who did and did not suggest condom use to their partner of the last year. Women who suggested condom use to their partners were younger, closer in age to their partner, more likely to be unmarried or if married, not to have only had a traditional wedding, more highly educated, their partners were more highly educated, more likely to have a migrant worker as a partner, more likely to live in Mpumalanga and less likely to live in the Northern Province. These women were more likely to have had more than one partner in the past year, more likely to know that her partner has other girlfriends and to have a partner who boasts about other girlfriends or brings them home. They were more likely to feel that their relationship is good and less likely to have no one to talk with about relationship problems. They were more likely to have been physically or financially abused in the past year and to have experienced violence by an intimate partner at some stage in their lives.

Table 2 shows the multiple logistic regression model for factors associated with discussing HIV. The factors significantly positively associated with an ability to discuss condom use were both partners having post-school education, living in Mpumalanga Province, the man being a migrant worker, the woman having had more than one partner in the year, and her having no one to talk with about relationship problems. Factors significantly negatively associated were living in the Northern Province, the woman feeling that the relationship is not good and there being an age difference of more than 5 years between the partners. Physical

Table 1
Demographic and relationship characteristics of partners by discussion of HIV and by whether or not she suggested condom use

	Partners have discussed HIV (<i>n</i> = 455) % (<i>n</i>)	Partners have not discussed HIV (<i>n</i> = 706) % (<i>n</i>)	She asked for a condom (<i>n</i> = 362) % (<i>n</i>)	She did not ask for a condom (<i>n</i> = 802) %(<i>n</i>)
Mean age (SD)	28.79 (7.46)	32.90 (8.94)	28.79 (7.39)	32.38 (8.91)
Age difference between partners > 5 years	46.7 (211)	59.3 (413)	48.5 (174)	57.1 (451)
Marital status:				
Church ceremony	18.2 (83)	17.0 (120)	18.2 (66)	17.1 (137)
Traditional ceremony only	27.5 (125)	37.8 (267)	24.3 (88)	38.0 (305)
Widow /divorced/separated	0.4 (2)	0.4 (3)	0.3 (1)	0.5 (4)
Non-marital partner	50.1 (228)	41.5 (293)	53.0 (192)	41.2 (330)
Single, no boyfriend	3.7 (17)	3.3 (23)	4.1 (15)	3.2 (26)
Education of the woman:				
Up to Std 3	5.7 (26)	20.2 (142)	4.5 (16)	19.0 (152)
Primary	10.2 (46)	17.7 (124)	8.6 (31)	17.5 (140)
Secondary incomplete	47.2 (214)	46.3 (325)	51.8 (186)	44.4 (355)
Matriculation	24.7 (112)	12.8 (90)	23.1 (83)	14.9 (119)
Post-matric	12.1 (55)	3.0 (21)	12.0 (43)	4.1 (33)
Education of the man:				
Up to Std 3	12.8 (58)	29.9 (211)	12.4 (45)	28.2 (226)
Primary	20.2 (92)	27.6 (195)	21.3 (77)	26.2 (210)
Secondary incomplete	20.0 (91)	19.7 (139)	19.6 (71)	19.8 (159)
Matriculation	32.1 (146)	17.6 (124)	33.7 (122)	18.6 (149)
Post-matric	15.0 (68)	5.2 (37)	13.0 (47)	7.2 (58)
Man is a migrant	48.4 (220)	43.6 (308)	49.2 (178)	43.8 (351)
Province:				
Eastern Cape	30.6 (139)	30.6 (216)	30.4 (110)	30.7 (246)
Mpumalanga	41.5 (189)	27.5 (194)	37.0 (134)	31.1 (249)
Northern Province	27.9 (127)	41.9 (296)	32.6 (118)	38.3 (307)
Woman had > 1 partner in the past year	6.4 (29)	3.1 (22)	8.0 (29)	2.7 (22)
Woman has no one to talk to about relationship problems	39.4 (173)	33.9 (230)	34.3 (119)	36.8 (284)
Woman feels that the relationship is not good	8.0 (36)	18.6 (131)	12.5 (45)	15.3 (122)
Man has other girl friends:				
Yes	23.1 (105)	22.4 (158)	26.5 (96)	20.8 (167)
No	38.5 (175)	32.2 (227)	34.0 (123)	35.2 (282)
Do not know	38.5 (175)	45.5 (321)	39.5 (143)	44.0 (353)
Man boasts of other women	7.0 (32)	7.5 (53)	8.6 (31)	6.7 (54)
Physical abuse in the past year	7.9 (36)	10.6 (75)	10.5 (38)	9.1 (73)
Physical abuse ever	24.2 (109)	24.4 (172)	28.6 (103)	22.4 (103)
Financial abuse in the past year	8.4 (38)	10.3 (73)	12.4 (45)	8.2 (66)

violence and financial abuse were not significantly associated with discussion of HIV.

Table 3 shows the multiple logistic regression model for factors associated with her suggesting condom use. The factors significantly positively associated with her having suggested condom use were the woman having post-school education, having more than one partner in the past year, having experienced physical violence prior to but not in the past year and experiencing financial abuse in the past year. The woman feeling that her

relationship was not good was significantly negatively associated.

Discussion

This study has demonstrated that a range of factors influence the likelihood of couples discussing HIV and of a woman suggesting condom use. The similarities and substantial differences between the factors associated

Table 2
Multiple logistic regression model showing factors associated with discussion of HIV

	Odds Ratio	95% CI	P value
Woman has post-matric education	3.77	2.00–7.10	<0.001
Man has post-matric education	2.63	1.58–4.39	<0.001
Woman feels that relationship is not good	0.36	0.23–0.57	<0.001
Lives in Northern Province	0.58	0.39–0.86	0.007
Lives in Mpumalanga	1.60	1.09–2.33	0.015
Woman had > 1 partner in previous year	2.36	1.23–4.51	0.009
Male partner is a migrant worker	1.45	1.10–1.91	0.008
Age difference between partners of > 5 years	0.65	0.50–0.85	0.002
Woman has no one to talk with about relationship problems	1.35	1.01–1.79	0.041

No of obs. = 1095.

No. of clusters = 100.

Overall model Wald Chi square = 103.66 on 12 d.f. ($p < 0.0001$).

Intra-cluster correlation, $\rho = 0.13$.

Table 3
Multiple logistic regression model showing factors associated with her asking for condom use

	Odds ratio	95% CI	P value
Woman has post-matric education	3.53	2.13–5.86	<0.001
Woman had > 1 partner in past year	3.05	1.66–5.62	<0.001
Financial abuse by man	1.95	1.22–3.11	0.005
Woman feels that relationship is not good	0.59	0.38–0.92	0.021
Physical abuse prior to past year	1.51	1.04–2.17	0.029

No. of obs. = 1151.

No. of clusters = 100.

Overall model Wald Chi square = 55.10 on 11 d.f. ($p < 0.0001$).

Intra-cluster correlation, $\rho = 0.15$.

with each of these acts highlights, as expected, the disjunction between discussion of the disease and personalisation of risk. The factors which emerge as significantly associated in the multiple logistic regression analysis include several indicators of gender inequity including age differences between partners, financial abuse, experience of intimate partner violence prior to the past year, and the woman's assessment of the goodness of the relationship.

Discussion of HIV was more common amongst more educated men and women. It seems likely that these groups have greater access to information on the disease and feel more empowered to engage with this information through discussion and reflection on personal risk. It is in keeping with findings that more educated women are most likely to have used a condom last time they had sex (Department of Health, forthcoming). The absence of the man's education from the model shown in Table 3 suggests that having discussed HIV, the ability of a woman to move on to suggest condom use is critically influenced by the empowerment that she derives from her higher educational status.

Several of the factors associated with a likelihood of discussing HIV were also associated with risk. The three provinces studied had sero-prevalences of HIV on antenatal surveillance amongst the highest (Mpumalanga), middle (Eastern Cape) and lowest (Northern Province) in the country. Migrant workers are a particularly high-risk group for HIV (Campbell, 2000). The observation that people living in higher prevalence areas and partners where the man was a migrant worker were more likely to discuss HIV may reflect the presence of HIV in the social networks of the informants (or their partners) or it may be that there is more information on the disease in higher prevalence areas or work places due to the work of management and trade unions and model projects such as the Carltonville Project (Campbell, 2000). The data again suggests that this general awareness of the disease is not translated into a greater likelihood of the woman initiating condom use.

Women who have had more than one partner in the past year were more likely to discuss HIV and initiate condom use. This is very encouraging because this is clearly an at risk group. For the most part these women

had ended one relationship and started a new one during the year. The practice of couples using condoms for a few months until they 'agree to trust' each other has been widely reported (Wood et al., 1997; Wood & Jewkes, 2001) and may explain this. The lack of association between the man having multiple partners and HIV discussion or condom suggestion may reflect the gendering of the epidemic which has been reported in other work (Simbayi et al., 2000). The effect of this could be to reduce the extent to which men are seen as repositories of HIV and thus a source of risk even by women. It might be hypothesised that communication would be poorer in relationships where the man was known to have other partners, but there is no evidence to support this here and if anything, it is refuted by the lack of any negative association.

Women who had better relationships were more likely to discuss HIV and suggest using condoms. Those with no one to talk with about relationship problems were more likely to discuss HIV with their partner. This factor, which appears to reflect an absence of social support, is probably more indicative of lack of need for support with relationship problems i.e. a sign of having a better relationship. This is discussed elsewhere (Jewkes et al., in press) and seems to indicate that women with better relationships are more likely to discuss HIV. Similarly those who said that their relationship was not 'good' were less likely to discuss HIV. This group were significantly less likely to have suggested condom use.

Age difference between partners is a marker of inequality in relationships. This is particularly so in a society where in addition to the strong gender hierarchy there are clear rules about respect of elders. The finding that couples where the man was more than 5 years older than the woman were less likely to have discussed HIV indicates the importance of these inequalities as barriers to communication on these matters in relationships.

Contrary to expectations, there was no indication that experiences of intimate partner violence, either in the past year from the male partner or previously from this or another partner, influenced the likelihood of discussion of HIV; neither did experiences of financial abuse by this partner. Both of these factors significantly influenced likelihood of the woman suggesting condoms, but not in the direction which might have been anticipated from the literature reviewed in the introduction. Women who were financially abused were more likely to suggest condom use to the abusing man, and women who have experienced physical violence prior to the past year were also more likely to suggest condoms. Experience of physical violence in the past year did not inhibit or promote suggestion of condom use by the woman. It is possible that the financial abuse followed a request for condom use; however, it may also be the case that women who do not receive financial support from their partner do not feel obliged to have sex on his terms

and so feel more empowered to suggest condoms. Women who have experienced physical violence in the past may find it harder to trust men and more difficult to be terribly intimate again and this may explain why they are more likely to suggest condom use.

Indicators of gender inequalities in relationships are seen in this study to operate in different and contradictory ways. So women who are currently financially abused and those previously beaten are more likely to suggest using condoms, those who have bad relationships are less likely. This suggests that the often repeated statements that gender inequalities reduce women's ability to protect themselves against HIV are indeed overreductionist.

Implications of the findings for understanding of gender and HIV protection

The findings presented here can only provide insights into certain aspects of the relationship between gender and HIV risk and as a cross-sectional study, some questions of the temporal sequence of events remain unresolved. Whilst the questions which were included in the survey considered multiple aspects of gender relations, it was not designed as a study of HIV and did not include questions on condom use beyond asking the reaction to the woman's suggestion. It is possible that intimate partner violence was underreported in this study as this is common in research (Heise, Raikes, Watts, & Zwi, 1994). This would result in the underestimation of its impact. However, it seems likely that any reporting bias was in favour of more severe experiences of violence. Sexual violence by the intimate partner was not measured well in this study and it is possible that this would impact on HIV preventive practices. Despite these limitations, the findings are important as in this social setting of fairly high levels of violence and prominent gender inequalities, experiences of intimate partner violence were not found to be associated with these (albeit proximal) HIV protective practices. Gender inequalities were found to be important, and the data suggest that this was particularly where they impact on communication, where there was a substantial age difference and when the relationship was not good (although there are more explanations for this than just gender inequalities).

Within the world literature on gender-based violence and health, there are other studies which clearly indicate the importance of gender inequalities as risk factors for reproductive and sexual ill-health but indicate that the dynamics of relationships are more complex than has been hitherto suggested. In South Africa, a case control study of factors associated with teenage pregnancy found very high levels of physical abuse (60%) reported by both cases and controls. There was a suggestion that cases were beaten more often but the differences were

not statistically significant. Forced sexual initiation was found to be very important in teenage pregnancy risk (Jewkes et al., 2001). The 1998 South Africa Demographic and Health Survey (Department of Health, forthcoming) included questions to women on condom use at last intercourse and on violence against women. Neither experiences of rape, nor of physical violence were significantly associated with condom use (unpublished data).

Internationally, the literature reporting findings of empirical quantitative studies on violence against women and HIV prevention is extremely small. The studies which mostly have weaknesses including very small sample sizes (e.g. El Bassel et al., 1998), non-representative samples (e.g. Cohen et al., 2000), have been undertaken in populations with characteristics which make them substantially different from the general population, such as sex workers or women in refugees (e.g. Cohen et al., 2000), have not been designed to address violence against women comprehensively and/or have inadequately adjusted for known confounders, particularly sex work (e.g. Maman et al., 2001). Although suffering from some of these problems, the Women's Interagency HIV Study (Cohen et al., 2000) found no difference in lifetime prevalence of domestic violence (66% vs. 67%) in the HIV infected and uninfected women in their cohort (1288 HIV positive women and 357 HIV negative at recruitment). HIV seronegative women were significantly more likely to report violence in the past year. El-Bassel et al. (1998) undertook a small survey ($n = 143$) of women in a New York emergency department. On the one hand they found abused women to be significantly more likely to have had an STD, yet they also found an equally strong positive association between experience of domestic violence and having refused to have sex without a condom in the previous month. In Tanzania, Maman et al. (2001) found no association between HIV serostatus and experience of intimate partner violence amongst women aged 30–55 years. 47.5% of women with HIV and 44.7% of those without had been physically abused. However, one of the better designed studies for investigating these issues from the United States which focused on adolescent sexual health and dating violence ($n = 522$), did find strong positive associations between dating violence and having a self-reported STD (Wingood, DiClemente, Hubbard McCree, Harrington, & Davies, 2001).

Problematising gender inequalities

The findings of these studies, together with the data presented in this paper provide strong support for an argument that there is a need for further research on gender inequalities and HIV. This should explore not only 'which' manifestations of gender inequality are

linked to HIV, but also 'how' they articulate with each other, and other factors such as poverty, to create situations of HIV risk. There is also a need for research on 'how much' risk of HIV is explained by which particular manifestations of gender inequality.

A more nuanced understanding of gender inequalities and how they operate to influence HIV risk is needed. Key questions could include: to what extent are different manifestations of gender inequity experienced by women in particular relationships? How do they influence the exercise of power within the sexual part of the relationship? Is the effect of all forms summative or are other types of interactions seen between forms of gender inequity? How does the experience of certain forms of gender inequity, particularly forms of gender-based violence, at different stages in life and ages influence response by women to others encountered at other times? Are some forms more important than others in relation to women's HIV risk? Which? How do experiences of gender-based violence perpetrated by non-intimate partners, e.g. stranger rape or sexual harassment at work, influence the exercise of power within intimate relationships? What meanings are attached by women to different forms of gender inequity? How are these meanings influenced by experiences of multiple forms? How do they vary intra- and inter-nationally? What is the relationship between meaning perceived by women and meanings for sexual health? For men key questions revolve around understanding how different manifestations of sexual power advantage work to create HIV risk, how they interact with each other and with other sources of power and with disempowerment of men in other domains (e.g. with relation to poverty or education) to influence HIV risk. Which men in which circumstances use their gender power advantage to reduce their risk of HIV?

Conclusions

Research in South Africa has indicated that gender inequalities are strongly associated with at least the proximal HIV preventive practices of discussing HIV and the woman suggesting condom use, but many forms of gender inequity are either unrelated or do not demonstrate the anticipated direction of association. Whilst the study's findings are far from conclusive, they point towards a need to explore more critically the relationship between gender inequalities and HIV prevention, particularly as they are supported by findings from other studies in South Africa and the United States. The findings do support the general assertion that gender is an important influence on HIV preventive practices and needs to be more strongly emphasised in prevention programmes. The complexity of the relationship between gender and HIV indicated

here highlights the need for gender issues as a whole to be integrated into HIV prevention programmes and not approached piecemeal.

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