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Gender-based violence, alcohol use, and sexual risk among female patrons of drinking venues in Cape Town, South Africa

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Abstract Gender-based violence is a well-recognized risk factor for HIV infection among women. Alcohol use is associated with both gender-based violence and sexual risk behavior, but has not been examined as a correlate of both in a context of both high HIV risk and hazardous drinking. The purpose of this paper is to examine the association between recent abuse by a sex partner with alcohol and sexual risk behavior among female patrons of alcohol serving venues in South Africa. Specifically, the aim of this study is to determine whether sexual risk behaviors are associated with gender-based violence after controlling for levels of alcohol use. We surveyed 1,388 women attending informal drinking establishments in Cape Town, South Africa to assess recent history of gender-based violence, drinking, and sexual risk behaviors. Gender-based violence was associated with both drinking and sexual risk behaviors after controlling for demographics among the women. A hierarchical logistic regression analysis showed that after controlling for alcohol use sexual risk behavior remained significantly associated with gender-based violence, particularly with meeting a new sex partner at the bar, recent STI diagnosis, and engaging in transactional sex, but not protected intercourse or number of partners. In South Africa where heavy drinking is prevalent women may be at particular risk of physical abuse from intimate partners as well as higher sexual risk. Interventions that aim to reduce gender-based violence and sexual risk behaviors must directly work to reduce drinking behavior.

Keywords Gender-based violence · Intimate partner violence · Alcohol · Sexual risk · HIV risk

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Introduction

In 2009, UNAIDS estimated that 5.6 million people were living with HIV/AIDS in South Africa, a prevalence higher than any other country (UNAIDS, 2010). In South Africa, women comprise the majority of HIV infections (UNAIDS, 2009). In 2008, HIV prevalence was 20 % among women and 12 % among men aged 15–49 years old in this country (Shisana et al., 2009). Gender-based violence has long been recognized and continues to be a strong factor in determining women's HIV risk within sub-Saharan Africa and in South Africa in particular (Campbell, 2002; Dunkle et al., 2004a, b; Dworkin & Ehrhardt, 2007; García-Moreno & Watts, 2000; Ghanotakis et al., 2009; Maman et al., 2000; UNAIDS, 2005). Violence in intimate relationships that is directed at women is associated with women's HIV serostatus, with HIV infected women reporting even higher prevalence of violence than uninfected women (e.g., van der Straten et al., 1995, 1998). Importantly, this is evidenced not solely with cross-sectional studies but also in longitudinal research. Jewkes and colleagues showed that among women in South Africa, those who were HIV negative at baseline were more likely to become HIV positive if they experienced violence from a male partner compared to women who did not experience such violence

(Jewkes et al., 2010). There are several potential factors that may explain the relationship between gender-based violence and HIV infection (Jewkes et al., 2010), including sexual risk behavior and alcohol use.

Women who experience violence from a male sex partner endure psychological effects, sometimes lasting for years after the incidents (Wang & Rowley, 2007). As a result, they may often engage in high-risk sexual behavior, including having multiple and concurrent sexual partners, using condoms less, and engaging in substance use (Dunkle et al., 2004a, b; El-Bassel et al., 1998; Jewkes et al., 2003, 2006; Johnson et al., 2003). Further, data from the WHO multi-country study on women's health and domestic violence showed that across countries alcohol use was a robust correlate with experiences of violence (Abramsky et al., 2011). Reasons for this association include alcohol use as a way to cope with the violence as well as other adverse living conditions (Kaysen et al., 2007). Although research that allows for causal conclusions is limited, it is clear that gender-based violence is associated with alcohol use among women.

In addition to gender-based violence, drinking is strongly associated with high sexual risk behavior (Kalichman et al., 2007; Morojele et al., 2006; Weinhardt & Carey, 2000). In fact, alcohol use is among the most prevalent behaviors associated with sexual risk for HIV. Consumption of alcohol increases risk via a number of mechanisms, including reducing social and sexual inhibitions, risky expectations, and the psychogenic effects of alcohol on decision-making (Cook & Clark, 2005). The association between alcohol and sexual risk has substantial implications in contexts where HIV prevalence rates are high, such as South Africa. Not only does South Africa have one of the highest HIV prevalence rates, it also has high rates of hazardous drinking among those who consume alcohol thereby exacerbating the importance of the relation between alcohol use and sexual risk (Parry, 2005; South African Department of Health, 2007).

South African drinkers consume an average of 20 l of alcohol per year, a rate among the highest in the world (Parry, 2005). Further, roughly one in 10 adult women in this country experience symptoms of alcohol problems (Parry et al., 2005). The high rate of drinking is often attributed to the history of alcohol in South Africa, as it was used as a form of currency to trade cattle and pay indigenous workers (Parry, 2005). Individuals in this country often drink in shebeens, or informal drinking venues, often run out of people's homes or garages. Drinking environments are recognized as an important moderator in the relationship between alcohol and HIV risk (Kalichman et al., 2007; Morojele et al., 2006). Shebeens are also often places where sex partners meet (Morojele et al., 2006). In a study conducted in South Africa that mapped where people meet new sex partners and drank alcohol an overlap of over 85 % was found. Thus, alcohol-serving establishments may represent an intersection of women's risk for relationship violence and HIV infection (Weir et al., 2003).

Altogether, the literature shows an association between gender-based violence, sexual risk behavior, and alcohol. Because gender-based violence has been shown to be such a significant determinant of women's HIV risk, it is essential to examine these relationships in South Africa where HIV and drinking prevalence rates are high. Specifically, it is important to examine the extent to which gender-based violence is associated with sexual risk, over and above alcohol use among women in high-risk drinking environments. In the current study, we surveyed women attending drinking venues in a Cape Town, South Africa township. We predicted that women who experience being physically abused by a sex partner would be significantly more likely to have both higher alcohol use and sexual risk behavior. In this study in order to capture a more comprehensive understanding of alcohol use and its relationship with gender-based violence and sexual risk behavior, we examined multiple dimensions of drinking including alcohol expectancies, use (e.g., frequency), and severity (e.g., problem drinking). We also examined whether sexual risk would still be associated with gender-based violence after controlling for drinking. Should the association between gender-based violence and sexual risk behavior remain significant, this would provide further evidence for gender-based violence as a robust correlate of HIV risk. However, should the association no longer remain significant after controlling for drinking, this would highlight the important role of alcohol in both gender-based violence and sexual risk behavior.

Method

Participants and setting

Participants were women attending shebeens in a peri-urban township in Cape Town, South Africa. The township is located within 20 km of Cape Town's central business district and consists of both people of mixed race (i.e., Coloureds) and Black Africans. A relatively new township, the community was established in 1990 and is one of the first townships in South Africa to racially integrate. Large numbers of indigenous Black Africans started settling in and around the township during the 1990s after government policies of racial segregation during Apartheid ended. The township sampled for this study, therefore, offers the opportunity to survey women of varying cultures residing within one South African community.

Venue selection

Using an adaptation of the Priorities for Local AIDS Control Efforts (PLACE) community mapping methodology (Weir et al., 2002), we located and defined alcohol serving establishments in the township for the current study. Alcohol serving venues were systematically identified by approaching a total of 509 members of the community at public places such as bus stands and markets, and asking them to identify places where people go to drink alcohol. Venues were eligible if they had space for patrons to sit and drink, reported >50 unique patrons per week, had >10 % female patrons, and were willing to have the research team visit periodically over the course of a year. Using street intercept surveys, respondents identified 124 local drinking establishments. Of these, 38 met our initial eligibility criteria of >50 unique sit-down patrons per week and >10 % female patrons. Four additional venues were excluded because they were located in located in areas with high rates of violent crime and political unrest, raising safety concerns, were not operational during the week and/or throughout the year, or were unwilling to have regular visits by the research team. Of the remaining venues, 12 were selected for diversity in size, location, and race/ethnicity of patrons.

Procedure

Anonymous surveys were collected between October 2009 and August 2011 at a total of twelve alcohol-serving venues during two waves of data collection. Individuals inside the venues were approached by field workers to complete the 9-page survey questionnaire, which took an average of 10–15 min to complete. The expected number of patrons attending each venue ranged from 50 to 250. Field workers aimed to survey at least 75 % of patrons at each venue. Black African field workers spoke Xhosa and English, and Coloured field workers spoke Afrikaans and English. Surveys were provided in participants' preferred language, and participants were given the option to self-administer or have someone read the questions aloud to them. Participants were given a small token of appreciation for completing surveys, such as a keychain or coffee mug. Cross-sectional surveys were collected four times over a 1-year period. Surveys were data scanned and manual checks were performed to identify errors. All study procedures were approved by ethical review boards in the US and South Africa.

Measures

Measures were adapted from previous research conducted in South Africa. All of the measures were translated and back-translated to produce parallel forms in the three languages of administration (English, Xhosa and Afrikaans).

Demographics

Participants were asked to report age, education, gender, ethnicity, employment, marital status, having children, having electricity and having indoor running water.

Gender-based violence

Gender-based violence was assessed as experience with physical abuse. Participants were asked to report in a dichotomous yes/no format whether a sex partner hit them. The question was asked for both lifetime and the past 4 months.

Alcohol expectancies

We assessed alcohol-sex outcome expectancies with four statements adapted from Goldman and Darkes (2004). Participants responded yes or no to the following: "Drinking alcohol makes me more relaxed;" "Drinking alcohol makes me feel less in control of myself;" "After drinking alcohol I am less likely to use a condom;" and "Sex is better after I have been drinking."

Alcohol use

Alcohol use was assessed as quantity, frequency, and current drinking. Current quantity and frequency of alcohol use was assessed with items on the Alcohol Use Disorder Identification Test (AUDIT) (Saunders et al., 1993). *Alcohol frequency*: Participants were asked to report how often they have a drink containing alcohol; response choices were 1 = *never*, 2 = *monthly or less*, 3 = *2–4 times a month*, 4 = *2–3 times a week*, and 5 = *more than 4 times a week*. *Alcohol consumption*: Participants reported how many drinks containing alcohol they have on a typical day when they are drinking; responses choices were 1 = *I don't drink*, 2 = *1–2 drinks*, 3 = *3–4 drinks*, 4 = *5–6 drinks*, 5 = *7–9 drinks* and 6 = *10 or more*. *Current drinking*: Participants were asked if they planned on drinking at the bar that evening and responded yes or no.

Alcohol severity

Alcohol severity was assessed as binge and problem drinking. *Binge drinking*: Participants reported how often they have six or more drinks on one single occasion; response choices were 1 = *never,* 2 = *less than monthly,* 3 = *monthly,* 4 = *weekly,* 5 = *daily or almost daily*.

Problem drinking: Participants were asked to respond to the four-item CAGE questionnaire (Ewing, 1984). This scale is specifically designed to screen for alcohol abuse and dependence. The specific items were, with yes/no responses, were: "Have you ever felt that you should cut down on your drinking?" "Have people annoyed you by criticizing your drinking?" "Have you ever felt bad or guilty about your drinking?" and "Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?" Participants were coded as problem drinkers if they responded "yes" to at least two items.

Sexual risk

Sexual risk behaviors: Participants used an open-response format to report the number of the following during the past 4 months: male sexual partners, female sexual partners, times of unprotected vaginal sex (i.e., without condoms), protected vaginal sex, unprotected anal sex, protected anal sex, times drank alcohol before sex, and times used drugs before sex (summed number of male and female sexual partners to index "total partners"). We created a variable "percent protected intercourse" by dividing total number of condom protected vaginal and anal acts by total protected and unprotected vaginal and anal acts. For this variable, participants who reported zero male or female sex partners or zero unprotected acts in the last 4 months were coded as 100% protected. Participants were also asked to respond "yes" or "no" to four items regarding their sexual behavior at the bar. Specifically, they reported whether they came to the bar tonight to look for a sex partner, whether they ever met a new sex partner at the bar, whether they used a condom the last time they met a new sex partner at the bar, and whether they ever had sex on the premises of the bar. Participants also reported whether they have sold sex (for money, alcohol, drugs, or a place to stay) both in their lifetimes and in the last 4 months. *Recent Sexually Transmitted Infection History*: Participants were asked to report whether they have been diagnosed with a sexually transmitted infection (STI) in the last 4 months. *HIV Infection*: Participants were asked to report the results of their most recent HIV test; response choices included, "positive," "negative," "I don't know," and "refuse to answer."

Data analyses

We analyzed the data in three stages. First, we conducted descriptive analyses of demographics and gender-based violence. These analyses showed that experiencing recent gender-based violence was associated with various demographic characteristics. Second, we conducted logistic regression analyses, controlling for these demographic characteristics associated with experiencing violence, to examine the association of gender-based violence with alcohol use and with sexual risk behaviors.

Finally, we conducted multivariate hierarchical logistic regression to examine a conceptual model of the association between gender-based violence and alcohol use (categorized by cognitive and behavioral aspects of use and severity). Only those variables that were significant at the $p < .10$ level from univariate analyses were included in the hierarchical logistic regression (with the exception of transactional sex, in which we only included selling sex in the past 4 months and not lifetime history to avoid redundancy/multicollinearity). In this model, we examined whether demographic characteristics would be associated with violence (i.e., entered in the first step of the regression model), whether alcohol expectancies would be associated with violence controlling for demographics (i.e., entered in the second step), whether alcohol use would be associated with violence controlling for demographics and alcohol expectancies (i.e., entered in the third step), whether alcohol severity would be associated with violence controlling for demographics, alcohol expectancies, and use (i.e., entered in the fourth step). In the last step of the model we examined whether sexual risk behaviors remained statistically significantly associated with gender-based violence over and above alcohol use.

Results

Descriptives

Participants were approached at twelve different drinking venues and 1,883 women agreed to complete surveys. Of these women, 451 (24.6 %) had previously completed a survey on a prior occasion and 16 (<1 %) failed to report whether they had completed the survey on a prior occasion. These responses (n = 467) and missing data for gender-based violence (n = 28) were removed leaving 1,388 women. Mean age of the sample was 32.3 years (SD = 11.6), 42 % of the women were Black (n = 586), 56 % Coloured (n = 778), and 2 % of the sample reported being of an "other" race, like White or Indian (n = 24). The majority of the women reported being unmarried (n = 986, 71.0 %), unemployed (n = 1,011, 72.8 %), having children (n = 987, 71.1 %), having electricity (n = 1,307, 94.2 %), and having indoor water (n = 1,246, 89.8 %). Of the 1,388 women, a total of 540 (38.9%) reported a lifetime history of violence (i.e., ever being hit by a sex partner). For recent violence, a total of 1,140 (82.1 %) reported not having been hit and a total of 248 (17.9 %) women did report having been hit by a sex partner in the last 4 months. Among the 1,140 women who

reported not being hit by a sex partner in the last 4 months, 322 of them (28.2 %) did report having been hit by a sex partner at least once in their life (i.e., ever). For the subsequent analyses, we focused on *recent* gender-based violence to compare the 1,140 women who had not experienced violence in the last 4 months to the 248 women who did.

Demographics

Table 1 displays demographic characteristics of the women by gender-based violence (i.e., not abused vs. abused). Women who were younger, unmarried, pregnant, and did not have indoor water were more likely to report recent experience of gender-based violence. Therefore, we controlled for age, marital status, pregnancy, and access to indoor water in the remaining analyses.

Alcohol expectancies and use

Table 2 shows the association between gender-based violence and alcohol expectancies and drinking. Compared to women who did not experience recent gender-based violence women who did experience recent gender-based violence were more likely to report that drinking alcohol makes them feel more relaxed and that sex is better after they have been drinking. There was also a trend for abused women to report that after drinking alcohol they are less likely to use a condom. There were significant associations between gender-based violence and all drinking variables; women who were abused were more likely to report more frequent and higher alcohol consumption, binge drinking, were more likely to report lifetime problem drinking, and to say that they came to the bar that night to drink.

Table 1 Demographics among women who have and have not experienced recent gender-based violence in the past 4 months

Characteristics	Recent gender-based violence				
	No (n = 1,140)		Yes (n = 248)		
	M	SD	M	SD	*t*
Age	33.03	12.02	29.04	8.72	6.04***
Education	2.18	.85	2.25	.83	−1.18
	n	%	n	%	χ^2
Race					
Black	472	41.4	114	46.0	1.74
Coloured or other	668	58.6	134	54.0	
Married	292	26.7	43	18.9	5.96*
Employed	309	27.2	60	24.4	.84
Children	818	72.1	169	69.3	.78
Pregnant	115	10.2	43	17.8	11.10***
Electricity	1,079	94.9	228	92.3	2.59
Indoor water	1,038	91.2	208	83.9	12.09***

*** $p < .001$; * $p < .05$; education: 1 = Grade 7 or less, 2 = Grade 8–11, 3 = Grade 12, 4 = beyond Grade 12

Sexual risk behaviors

Table 3 shows that ever meeting a sex partner at the bar was associated with gender-based violence. Women who were abused were more likely to report ever having met a new sex partner at the bar. Also, women who recently experienced violence were more likely to report a recent STI diagnosis, to report being HIV positive, and to report selling sex for money, alcohol, drugs, or a place to stay both in their lifetime and in the past 4 months. Table 4 shows that women who reported experience with gender-based violence also reported more male sex partners, a lower likelihood of protected intercourse, and more sex with alcohol compared to women who did not experience violence.

Hierarchical logistic regression model

Using a hierarchical logistic model we identified factors that were uniquely associated with recent experience of gender-based violence (Table 5). The model included all significant variables (at the level $p < .10$) associated with violence from bivariate analyses.

Demographic variables significantly predicted experience with gender-based violence [χ^2 (4) = 33.23, $p < .001$]. Specifically, participants who were younger, pregnant, and did not have indoor water were more likely to report experience with gender-based violence. The second step of the regression model showed that alcohol expectancies explained gender-based violence, over and above demographics [χ^2 (3) = 17.61, $p < .001$]. Participants who agreed with the expectancy that sex is better after drinking were more likely to report experience with gender-based violence. The third step of the model showed that alcohol use significantly explained gender-based violence after controlling for demographics and alcohol expectancies [χ^2 (3) = 29.23, $p < .001$]. Specifically, women who reported a higher frequency and consumption of alcohol were more likely to report experience with gender-based violence. The fourth step of the model showed that alcohol severity significantly explained gender-based violence after controlling for demographics, alcohol expectancies and use [χ^2 (2) = 19.92, $p < .001$]. Being a problem drinker was associated with a higher likelihood of gender-based violence. Finally, results from the last step of the model showed that sexual risk behavior is associated with gender-based violence, over and above

Table 2 Alcohol expectancies and use among women who have and have not experienced gender-based violence in the past 4 months

Characteristic	Recent gender-based violence				AOR	AOR 95 % CI	
	No (n = 1,140)		Yes (n = 248)				
	n	%	n	%		Lower	Upper
Endorsement of alcohol expectancies							
Drinking alcohol makes me more relaxed	591	51.8	152	61.3	1.54**	1.14	2.08
Drinking alcohol makes me feel less in control of myself	284	24.9	73	29.4	1.25	.90	1.73
After drinking alcohol I am less likely to use a condom	260	22.8	69	27.8	1.36†	.97	1.89
Sex is better after I have been drinking	172	15.1	63	25.4	1.88***	1.32	2.68
Alcohol use							
Alcohol frequency							
Less than 4 times a month	721	63.2	119	47.9	1.43***	1.25	1.63
Drinks multiple times weekly	417	36.6	128	51.6			
Alcohol consumption in a drinking episode							
Drinks 4 or less drinks	709	62.2	114	46.0	1.29***	1.17	1.41
Drinks 5 or more drinks	428	37.5	133	53.6			
Binge drinking							
Less than monthly	687	60.2	109	44.0	1.45***	1.27	1.66
Weekly	448	39.3	139	56.0			
CAGE (problem drinker)	697	61.1	190	76.6	2.24***	1.58	3.16
Came to bar to drink tonight	709	62.2	181	73.0	1.78***	1.27	2.49

*** $p < .001$, ** $p < .01$, † $p < .10$; Control variables are age, marital status, pregnancy, and indoor water; Gender-based violence is coded as 0 = no recent violence, 1 = recent violence

Table 3 Sexual risks and infection history among women who have and have not experienced gender-based violence in the past 4 months

Behavior	Recent gender-based violence				AOR	AOR 95 % CI	
	No (n = 1,140)		Yes (n = 248)			Lower	Upper
	n	%	n	%			
Met a new sex partner at this bar	124	10.9	58	23.4	2.52***	1.74	3.64
Used a condom the last time met a new sex partner at this bar	83	66.9[a]	36	62.1[b]	1.37	.86	2.18
Ever had sex on the premises of this bar	16	1.4	9	3.6	2.09	.87	5.00
Diagnosed with STI in last 4 months	35	3.1	28	11.3	3.94***	2.27	6.82
Tested HIV positive	61	5.4	27	10.9	2.13**	1.27	3.58
Ever sold sex	58	5.3	47	19.0	3.94***	2.50	6.19
Sold sex in last 4 months	28	2.5	38	15.3	7.64***	4.40	13.27

[a] Among women who did not experience violence and who reported meeting a new sex partner at the bar

[b] Among women who did experience violence and who reported meeting a new sex partner at the bar; Control variables are age, marital status, pregnancy, and indoor water; Gender-based violence is coded as 0 = no recent violence, 1 = recent violence

*** $p < .001$; ** $p < .01$

demographics, alcohol expectancies, use, and severity [χ^2 (7) = 30.36, $p < .001$]. Specifically, women who experienced recent gender-based violence were more likely to report ever having met a new sex partner at the bar and being recently diagnosed with an STI compared to non-abused women. However, HIV status, number of recent male sex partners, percent protected intercourse, and alcohol and drug use in sexual contexts were not associated with gender-based violence.

Discussion

The current study examined the relationships between gender-based violence, alcohol use, and sexual risk behavior among women attending informal drinking venues (shebeens) in Cape Town, South Africa. We found that women who had more risky alcohol expectancies, who consumed more alcohol and consumed it frequently, who were problem drinkers, and who were at higher sexual risk

Table 4 Sexual risk behavior among women who have and have not experienced gender-based violence in the past 4 months

Behavior	Recent gender-based violence				AOR	AOR 95% CI	
	No (n = 1,140)		Yes (n = 248)			Lower	Upper
	M	SD	M	SD			
No. of male sex partners	1.07	1.84	2.92	23.30	1.07*	0.99	1.14
Female sex partners	0.15	0.72	0.30	1.80	1.05	0.91	1.21
Percent protected intercourse	71.05	40.33	61.84	41.78	0.99**	0.99	0.99
No. of sex acts with alcohol	2.36	8.48	7.12	27.90	1.02***	1.01	1.04
No. of sex acts with drugs	0.29	2.07	0.65	2.61	1.05†	0.99	1.11

*** $p < .001$; ** $p < .01$; * $p < .05$; † $p < .10$; Control variables are age, marital status, pregnancy, and indoor water; Gender-based violence is coded as 0 = no recent violence, 1 = recent violence

were more likely to report being recently abused by a sex partner. Importantly, sexual risk behavior, particularly meeting sex partners in a drinking venue and engaging in transactional sex, and gender-based violence were significantly associated even after accounting for alcohol in the context of the alcohol-serving venues. This suggests that among women in these settings, alcohol alone does not significantly account for the joint experience of gender-based violence and these sexual risk behaviors. However, our hierarchical logistic regression analysis showed that gender-based violence was not associated with having sex with alcohol and drugs and protected intercourse, after controlling for the alcohol use variables. This suggests that alcohol use partially helped to account for these sexual risk behaviors. Future research utilizing longitudinal methods and/or mediational analysis should examine whether alcohol use explains the link between women experiencing violence and sexual risk behavior (i.e., condom use). In sum the current study demonstrates that the association between gender-based violence and high-risk sexual behavior is robust, although nuanced, even among women in potentially high-risk drinking venues like shebeens.

The nuanced relationship between gender-based violence and sexual risk is evidenced by the finding that after controlling for alcohol use, gender-based violence was associated with certain sexual risk factors (e.g., STIs, meeting new sex partners at the bar, and engaging in transactional sex), and not other sexual risk factors (e.g., condom protected intercourse and sex with alcohol/drugs). These findings suggest that factors beyond alcohol use explain may why experiencing violence is associated with meeting sex partners at a bar and transactional sex. Apart from individual behavior like alcohol use, structural factors like poverty and gender inequities may also explain the association between gender-based violence and particular risk behaviors. For example, socially and economically disadvantaged women may be selling sex for survival needs, which puts them at risk for experiencing violence and contracting STIs (Dunkle et al., 2004a, b; Wojcicki, 2002). In the current context, this may be especially true for alcohol dependent women. Indeed, alcohol is often a currency for sexual exchange in South Africa (Townsend et al., 2011; Watt et al., 2012). Future research should more closely examine the interconnectedness of and underlying pathways between these behaviors and risk factors.

Previous research has demonstrated the relationship between gender-based violence and HIV risk. Specifically, work has shown that women who experience violence from a male partner are more likely to engage in alcohol use and high-risk sexual behavior (Bonomi et al., 2006; Phorano et al. 2005; Sullivan et al., 2012). However, these associations have not been examined within the context of shebeens among a sample of alcohol-consuming women. Thus, the current study adds to the existing literature by pointing to the nature of the relationship between gender-based violence and HIV risk in such settings. Taken together, these findings suggest that HIV interventions targeting alcohol-serving venues cannot effectively reduce gender violence and HIV risk among women by changing drinking behavior alone. Instead, interventions must directly address the target behaviors and relationships that place women at risk for multiple hazards.

In the current study we examined the relationship between gender-based violence and an array of alcohol variables, specifically alcohol expectancies, use, and severity. Whereas previous research has examined the relationship between gender violence and drinking, to our knowledge the current study is the first to examine it with more nuanced aspects of alcohol as measured here. We found that women who expected sex to be better after drinking were more likely to have reported recent abuse by a sex partner. While this type of alcohol-sex outcome expectancy is likely to relate to higher sexual risk behaviors, this finding points to potential interventions that aim to reconstruct outcome expectancies, beliefs, and other cognitive features of alcohol use. A question remains, however, whether women who believe that sex is better

Table 5 Hierarchical logistic regression model examining predictors of gender-based violence in the past four months (n = 1,388)

Model	B (SE)	OR	OR 95% CI	
			Lower	Upper
1. *Demographic variables*				
Age	−0.03 (.01)	0.97***	0.96	0.99
Marital status	−0.20 (.21)	0.82	0.54	1.23
Pregnancy	0.57 (.22)	1.77**	1.15	2.71
Indoor water	−0.61 (.22)	0.55**	0.35	0.84
χ^2 (4) = 33.23***				
2. *Alcohol expectancies*				
Drinking alcohol makes me more relaxed	0.27 (.16)	1.31†	0.95	1.81
After drinking alcohol I am less likely to use a condom	0.24 (.18)	1.27	0.89	1.82
Sex is better after I have been drinking	0.57 (.19)	1.77**	1.22	2.59
χ^2 (3) = 17.61***				
3. *Alcohol use*				
Alcohol frequency	0.18 (.08)	1.19*	1.02	1.40
Alcohol consumption	0.17 (.06)	1.19**	1.06	1.33
Came to bar to drink tonight	0.33 (.20)	1.39	0.94	2.05
χ^2 (3) = 29.23***				
4. *Alcohol severity*				
Binge drinking	0.16 (.10)	1.17	0.97	1.41
CAGE (problem drinking)	0.75 (.19)	2.11***	1.44	3.08
χ^2 (2) = 19.92***				
5. *Sexual risk*				
Met a new sex partner at the bar	.45 (.22)	1.56*	1.02	2.39
STI diagnosis last 4 months	1.12 (.34)	2.06***	1.56	5.99
HIV positive	.05 (.33)	1.05	0.55	2.01
Sold sex last 4 months	1.32 (.33)	3.76***	1.96	7.20
No. of male sex partners last 4 months	.01 (.03)	1.01	0.97	1.06
Percent protected intercourse last 4 months	−0.00 (.00)	1.00	0.99	1.00
No. of sex acts with alcohol last 4 months	0.00 (.01)	1.00	0.99	1.02
No. of sex acts with drugs last 4 months	0.01 (.04)	1.01	0.94	1.09
χ^2 (8) = 45.86***				

*** $p < .001$; ** $p < .01$; * $p < .05$; † $p < .10$; gender-based violence is coded as 0 = no recent violence, 1 = recent violence

after drinking are more likely to have partners who also drink alcohol, which has been shown by previous research to relate to an increased likelihood of violence (Seedat et al., 2009).

Alternatively or in addition, women who are abused may be more likely to cope with violence by drinking than non-abused women; hence reporting that sex is more enjoyable with a partner under the arguably numbing influence of alcohol. Indeed, abused women in our sample were also more likely than non-abused women to report that alcohol makes them feel more relaxed. In terms of alcohol use, after controlling for alcohol expectancies, abused women were more likely to report a higher frequency and consumption of alcohol. Further, recently abused women were more likely to be problem drinkers than non-abused women. Thus, this finding suggests that among women attending informal drinking venues, abused women may face multiple challenges with alcohol dependence, even over and above that explained by expectancies and current use. Future research would benefit from examining the complexity of drinking as it relates to gender-based violence.

The limitations of the current study should be considered when interpreting the findings. The current data were cross sectional, precluding causal conclusions regarding the relationships between variables. Given the potentially sensitive or stigmatizing questions that were included in the survey, self-report responses could have had the potential to be biased by social desirability. Finally, our sample consisted of South Africans attending an informal drinking establishment in a single township in Cape Town. Whereas this sample was suitable for the current study's aims, we have no knowledge about whether the findings are generalizable to the larger population.

In conclusion, the current study shows that among a sample of women in informal alcohol-serving establishments, gender-based violence is associated with sexual risk behavior. Unlike previous research, we examined and found this association even after controlling for alcohol-use, which itself has been shown to influence high sexual risk behavior. The current findings point to the importance of recognizing gender-based violence as an important correlate of women's HIV risk, even in potentially high-risk micro-contexts like shebeens and macro-contexts like South Africa where drinking is prevalent. HIV prevention services and interventions in South Africa must directly address gender-based violence in order to effectively reduce risk behavior and HIV infection rates.

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