

Determinants of multiple sexual partnerships in South Africa

Dorina Onoya¹, Khangelani Zuma², Nompumelelo Zungu³, Olive Shisana^{3,4}, Vuyelwa Mehlomakhulu¹

¹HIV/AIDS, STI and TB Program, Human Sciences Research Council, 13th Floor, Plein Park Building, 69-83 Plein Street, Cape Town 8000, South Africa

²Research Methodology Centre (RMC) Human Sciences Research Council, 134 Pretorius street, Pretoria, 0001, South Africa

³Office of the CEO, Human Sciences Research Council, 134 Pretorius street, Pretoria, 0001, South Africa

⁴University of Cape Town, Private bag X3, Rondebosch, Cape Town, 7701, South Africa

Address correspondence to Dorina Onoya, E-mail: donoya@hsrc.ac.za

ABSTRACT

Background This paper aims to examine determinants of multiple sexual partnerships (MSPs) among South African men and women using a nationally representative sample.

Methods Quantitative and qualitative data from a 2008 population-based cross-sectional survey were used. The analysis focused on the 6990 (33.6% of total sample) who were 15 years and older and reported sexual activity in the prior 12 months. The qualitative component consisted of 15 focus group interviews investigating values underlying MSP behaviors.

Results Predictors of MSP common across gender were race, having a history of STI, being in a short relationships (<1 year) and suspecting the current partner of infidelity. MSP among men enjoyed greater community acceptance and was mainly done for social status. Furthermore, men reporting MSP were mostly younger (15–24 years old) and use condom at last sex. Among women, determinants of MSP included economic vulnerability, younger age at sexual debut and living in formal urban rather than formal rural areas.

Conclusions The data presented in this paper reinforces the importance of MSP as a risk factor for HIV and outline factors that should strongly be considered in strengthening condom use promotion and of partner reduction programs messaging in South Africa.

Keywords HIV, multiple sexual relationships, South Africa, social values, transactional sex

Introduction

A variety of drivers of the epidemic have been suggested in an attempt to explain the high HIV/AIDS prevalence in the Sub-Saharan African region. These include poverty¹, migration², untreated sexually transmitted infections³ and lack of male circumcision.⁴ Various studies have focused on understanding sexual behaviors that increase the risk of HIV transmission in Sub-Saharan Africa. Some theorists have argued that the high HIV incidence and prevalence observed in Sub-Saharan Africa are driven by high levels of multiple sexual partnerships (MSP) behaviors.^{5,6,7}

Studies in the general population of South Africa have found that men are more likely to report MSP behavior than women with younger men reporting more sexual partners compared with their older counterparts.^{8,9,10} Gender norms and beliefs that men's sexual desires are uncontrollable and gendered role beliefs about the appropriateness of refusing sex

play a significant role in encouraging multiple sexual partnerships.^{9,11–14} Izugbara and Modo¹⁴ found that Nigerian adolescent males who had many sexual partners were accorded a higher social standing amongst their peers. Similarly, among boys in the township of Alexandra in South Africa, Selikow¹² found that those with multiple partners received complimentary labels such as 'Ingagara' or 'Top-dogs'. In contrast monogamous men in Sub-Saharan Africa are seen as lacking in the foundation of 'real manhood', abnormal, *isishumane* (incapable of convincing females) and dumb.^{9,11,12,14}

Dorina Onoya, Senior Research Specialist

Khangelani Zuma, Executive Director & Head of Biostatistics

Nompumelelo Zungu, Chief Research Specialist

Olive Shisana, Chief Executive Officer, Honorary Professor

Vuyelwa Mehlomakhulu, Research Specialist

Contrary to the acceptance of this behavior among men, women who engage in MSP are frowned upon and labeled with derogatory terms such as 'isifebe' or 'loose'.^{15,16} Various studies have shown that females' engagement in MSP was mostly to access finances for subsistence needs such as food, rent or school fees and to access lifestyle items including fashionable clothing, entertainment, jewelry or cellphones.^{15,17–22}

The purpose of this paper is to examine determinants of MSP behavior in the general population in South Africa using a nationally representative survey sample and qualitative data on social values underlying MSP behaviors.

Methods

Quantitative methods

Data for this study were collected as part of a nationally representative survey conducted in 2008. The sampling frame for the survey was based on a master sample consisting of 1000 census enumerator areas (EA) and 15 households were randomly selected per EA. The selection of EAs was stratified by province and locality type (formal urban settlements, informal/unplanned urban settlements, formal rural settlements and tribal authority areas) and race (in urban localities). A detailed methodology is described in Shisana *et al.*⁸ In this survey, 23 369 individuals were approached of whom 20 826 completed the interview. Among those who were interviewed 13 828 (66.4%) were aged 15 years or older. The analysis focused on the 6990 (50.5%) respondents who were aged 15 years and older and who indicated being sexually active in the prior 12 months. Among these 3004 (46.4%) were males and 3986 (53.6%) were females.

Structured questionnaires were administered by trained interviewers in the participant's language of choice. All variables included in the analysis were measured with single questions. These included socio-demographic factors, sexual behavioral factors, perceived personal risk of HIV, HIV testing history, history of STI, length of current relationship, perception that sexual partner is unfaithful and perceived community values with respect to having children before marriage, intergenerational and transactional sex among young men and women. The outcome variable, multiple sexual partnerships in the prior 12 months (MSP), was dichotomous and coded 0 = 1 partner and 1 ≥ 2 partners. Furthermore, dried blood spots (DBS) specimens were collected from consenting participants by registered professional nurses and were tested for HIV using a combination of three HIV-1 enzyme-linked immunoassays. The study protocol was approved by Human Sciences Research Council (HSRC) ethics committee (REC 2/23/10/07) and the Center for Disease Control independent review board.

Data management and statistical analysis

Data were double captured and verified in CSPro and converted to SPSS for further analyses. Accounting for the complex multistage sampling design and adjusting for HIV testing non-response, a weighted analysis of the outcome of interest and behavioral determinants was carried out using survey commands in Stata 10.0 software (StataCorp, College Station, TX, USA). The association between potential determinants and MSP was determined using univariate logistic regression. Variables showing significant univariate association with MSP were entered in a multivariate logistic regression model. Adjusted odds ratios (ORs) are reported to indicate the strength and direction of association. A *P*-value of ≤5% is used to indicate statistical significance.

Qualitative methods

This study included transcripts from 15 focus groups investigating social values underlying MSP behavior in South Africa. These were conducted as part of a much larger study of 51 focus groups investigating a variety of HIV and STI-related risk behaviors. Participants were chosen with the assistance of relevant gate keepers in various community and institutional settings using the snowball technique. Table 1 provides a description of the focus groups. These were conducted among men and women separately and included 174 individuals (34 young men, 30 young women, 59 adult women and 51 adult men). Participants were considered young if they were aged between 14 and 17 years old and adults if they were 18 years or older. The discussions were conducted by two trained facilitators in the participants' local languages. Discussions were recorded and transcribed verbatim. The qualitative data were summarized and coded using a thoroughly thematic analysis.

Results

Quantitative findings

Demographics

Table 2 presents the demographic characteristics of the study population. In the total sample of 6990 sexually active, 15 years and older respondents, 25.8% were aged 15–24, 58.3 and 16.0% were 25–49 and 50+ years old, respectively. Overall, 54.4% of participants lived in formal urban localities, 9.3% lived in informal urban localities, 27.6% were from tribal areas and 8.7% lived in formal rural areas. The majority were Black African (74.9%), 13.4% were white, 8.6% were 'colored' and 3.0% were of Indian or Asian descent. The majority had had some schooling; however, only 13.6% had tertiary education and 27.9% had Grade 12 (Matric). Nearly half (45.5%) were unemployed and 9.9% were students at the time

Table 1 Description of focus groups

Province	Type of participants	Issue	No. of participants	Language(s)	Race mix
Gauteng	Young men	Sugar mummies and multiple partnerships	12	Tswana	African
North West	Adult women	Sugar mummies and multiple partnerships	12	Tswana	African
North West	Adult women	Sexual practices and sugar mummies	13	Tswana and Afrikaans	African and whites
Limpopo	Adult men	Sugar mummies and multiple partnerships	12	Northern Sotho and Ndebele	African
Free State	Adult men	Sugar daddies, male circumcision and multiple partnerships	15	Southern Sotho	African
Western Cape	Adult women	Sleeping around and male circumcision	11	Xhosa	African
Northern Cape	Adult women	Teenage pregnancy and multiple sexual partnerships	11	English and Afrikaans	Colored and African
Northern Cape	Adult men	Sleeping around and male circumcision	10	English	African
Northern Cape	Young men	Sexual practices and sugar mummies	10	English and Afrikaans	Colored
Northern Cape	Young women	Sexual practices and sugar daddies	7	English and Afrikaans	Colored
Eastern Cape	Young women	Sugar daddies, male circumcision and multiple partnerships	12	Xhosa	African
Eastern Cape	Young men	Sexual practices and sugar mummies	12	Xhosa	African
Eastern Cape	Young women	Sexual practices and sugar daddies	11	Xhosa	African
Kwa-Zulu Natal	Adult women	Sugar daddies, male circumcision and multiple partnerships	12	Zulu	African
Kwa-Zulu Natal	Adult men	Male circumcision and sugar daddies	14	Zulu	African

Table 2 Demographic characteristics of the study participants

Variables	n (%)
Sex	
Males	3004 (46.4)
Females	3986 (53.6)
Age groups in years	
15–24	1906 (25.8)
25–49	3788 (58.3)
50+	1296 (16.0)
Locality type	
Urban formal	4203 (54.4)
Urban informal	866 (9.3)
Rural informal (tribal)	1272 (27.6)
Rural formal	589 (8.7)
Race of respondent	
Black	4085 (74.9)
White	969 (13.4)
Coloreds	1215 (8.6)
Indian/Asian	703 (3.0)
Level of education	
No schooling	298 (4.5)
Primary school	1128 (16.7)
High school to Std 9	2612 (37.3)
Matric	1999 (27.9)
University or college	953 (13.6)
Employment status	
Unemployed	3092 (45.5)
Employed	3279 (44.6)
Student	619 (9.9)

of the study. Among the 6892 (98.6%) who indicated the number of their sexual partners in the last 12 months, 9.5% (95% CI: 8.2–10.7) reported two or more sexual partners. Univariate and multivariate tests of association between MSP in the last 12 months and socio-demographic factors and social values among men and women are presented in Tables 3 and 4, respectively.

Univariate associations

A higher proportion of males reported MSP compared with women. Among both men and women MSP was highest among the 15–24 years old category followed by those who were 25–49 years old and lastly those aged 50 or older. In comparison with men of Indian or Asian descent, the OR for reporting MSP were 8.5 for black men, 3.3 for white men and 5.2 for colored men. Similarly, compared with women of Indian or Asian descent, the odds of reporting MSP among black, white and colored women were 54.6 ($P < 0.001$), 34.3 ($P = 0.002$) and 64.7 ($P < 0.001$), respectively.

Table 3 Demographic, HIV risk and social value-related predictors of MSP behavior in the last 12 months among male South Africans aged 15 years and older, 2008.

	<i>Number of sexual partners in the last 12 months</i>							
	<i>Univariate models</i>					<i>Multivariate model</i>		
	<i>n</i>	<i>% With ≥2 sexual partners (%)</i>	<i>OR</i>	<i>P</i>	<i>95% CI</i>	<i>OR</i>	<i>P</i>	<i>95% CI</i>
Age groups in years								
15–24	809	30.9	10.6	<0.001	6.2–18.2	4.7	<0.001	2.8–14.0
25–49	1517	14.4	4.0	<0.001	2.3–6.8	2.6	0.001	1.5–5.5
50+	678	4.0	1		1			
Locality type								
Urban formal	1939	16.3	0.9	0.760	0.5–1.5			
Urban informal	329	15.0	0.7	0.359	0.4–1.4			
Rural informal (tribal)	484	18.1	0.8	0.380	0.5–1.3			
Rural formal	252	19.4	1					
Race of respondent								
Black	1674	19.6	8.5	<0.001	4.5–16.5	4.5	<0.001	2.6–9.4
White	435	8.6	3.3	0.003	1.5–7.3	2.7	0.011	1.3–5.6
Coloreds	571	12.8	5.2	<0.001	2.6–10.4	3.3	0.003	3.0–6.4
Indian	315	2.8	1	1				
Level of education								
No schooling	126	7.9	0.4	0.054	0.2–1.0	0.7	0.208	0.2–1.4
Primary School	472	15.6	0.9	0.841	0.5–1.6	0.9	0.439	0.4–1.5
High School to Std 9	1110	18.8	1.2	0.481	0.7–1.9	0.7	0.104	0.4–1.1
Matric	871	16.9	1.0	0.859	0.6–1.6	0.8	0.290	0.5–1.3
University or College	425	16.3	1		1			
Employment status								
Unemployed	880	16.5	0.4	<0.001	0.3–0.7	1.1	0.794	0.6–1.9
Employed	1816	14.1	0.4	<0.001	0.2–0.5	1.3	0.680	0.6–2.1
Student	308	31.1	1	1				
Age at sexual debut: mean (SE)	2972	15.8 (0.38)	1.0	0.113	1.0–1.0			
Perceived risk of HIV								
High	658	23.9	1.9	<0.001	1.4–2.5	1.2	0.117	0.9–1.9
Low	2336	14.4	1		1			
Ever tested for HIV								
Yes	1577	14.2	0.7	0.015	0.5–0.9	0.8	0.461	0.6–1.3
No	1407	19.7	1	1				
History of STI (past 12 months)								
Yes	98	40.0	3.5	<0.001	2.0–6.0	4.8	<0.001	2.1–10.7
No	2820	16.1	1		1			
Duration of current relationship								
Less than a year	489	42.9	5.6	<0.001	4.0–7.9	2.9	<0.001	1.8–4.5
More than a year	2488	11.8	1	1				
Condom use at last sex								
Yes	845	12.2	2.5	<0.001	1.7–3.9	1.7	0.042	1.0–2.8
No	1206	26.0	1	1				
Do you think your current partner has had other partners last 12 months								
Yes	294	45.8	5.4	<0.001	3.8–7.7	4.0	<0.001	2.5–6.4
No	2710	13.5	1	1				
^b Community accepts young women to have children before marriage								
Agree	297	29.2	2.2	<0.001	1.4–3.4			
Disagree	2665	15.8	1					

Table 3 Continued

	Number of sexual partners in the last 12 months							
	Univariate models					Multivariate model		
	n	% With ≥2 sexual partners (%)	OR	P	95% CI	OR	P	95% CI
^a Community accepts young men to have children before married								
Agree	294	27.6	2.0	0.002	1.3–3.2	2.4	0.001	1.4–4.0
Disagree	2669	15.9	1	1				
Community accepts young women to have older male sexual partners for money								
Agree	101	16.5	1.0	0.924	0.5–2.2			
Disagree	2875	17.0	1					
Community accepts young men to have older female sexual partners for money								
Agree	93	13.6	1.3	0.473	0.6–2.8			
Disagree	2883	17.1	1					

^aNot included in multivariate model due to collinearity.

^bSpearman's rank correlation = 0.93.

Participants reporting being employed or unemployed were less likely to have reported MSP than those who were students (OR for employed men = 0.4, $P < 0.001$; OR for employed women = 0.4, $P = 0.005$; OR for unemployed men = 0.4, $P < 0.001$; OR for unemployed women = 0.3, $P = 0.003$).

MSP was significantly associated with being in a relationship for less than a year among both men and women (OR for men = 5.6, $P < 0.001$; OR for women = 14.2, $P < 0.001$), suspecting a sexual partner of infidelity (OR for men = 5.4, $P < 0.001$; OR for women = 3.7, $P < 0.001$) and having a history of STI among both genders (OR for men = 3.5, $P < 0.001$; OR for women = 2.8, $P < 0.002$). Perceived community acceptance of young men (OR for men = 2.0, $P = 0.002$) and women (OR for men = 2.2, $P < 0.001$; OR for women = 2.3, $P = 0.032$) having children before marriage was also positively associated with MSP behavior.

MSP was significantly associated with a high perceived personal risk of acquiring HIV (OR = 1.9, $P < 0.001$) and low likelihood of having ever tested for HIV (OR = 0.7, $P = 0.02$) and using a condom at last sex among men (OR = 2.5, $P < 0.001$). Furthermore, MSP was significantly lower among men with no schooling (OR = 0.4, $P = 0.5$) compared with those who had a tertiary level of education.

MSP among women was significantly associated with a younger age at sexual debut and living in a formal urban locality compared with a formal rural locality. There was, however, no significant association between MSP and locality of residence among men.

Multivariate associations

In the multivariate logistic models significant predictors of MSP common across gender were race, having a history of STI, being in a relationship for less than a year and suspecting the current partner of infidelity. Additional predictors of MSP among men were age, perceived community acceptance of young men having children before marriage and condom use at last sex. Predictors of MSP that were unique to women were living in a formal urban locality compared with a formal rural locality and younger age at sexual debut.

MSP and HIV risk

The results in Table 5 show that individuals reporting multiple sexual partnerships are more likely to be HIV positive. Among young (25–49 years old) males, the risk of HIV infection was significantly higher among those who reported MSP behavior compared with those who had one sexual partner in the previous 12 months (OR = 2.2, $P = 0.011$). Although not statistically significant, females of the same age group who reported MSP also had a higher risk of being HIV infected (OR = 2.2, $P = 0.127$).

Qualitative findings

South African communities seem more accepting of MSP among males than females. This stems from the culturally endorsed dominant gender role and control that men exercise in sexual relationships as well as cultural expectations of men.

Table 4 Demographic, HIV risk and social value related predictors of MSP behavior in the last 12 months among females South Africans aged 15 years and older, 2008.

	<i>Number of sexual partners in the last 12 months</i>							
	<i>Univariate models</i>					<i>Multivariate model</i>		
	<i>n</i>	<i>% With ≥ 2 sexual partners (%)</i>	<i>OR</i>	<i>P-values</i>	<i>95% CI</i>	<i>OR</i>	<i>P</i>	<i>95% CI</i>
Age groups in years								
15–24	1098	5.7	9.4	0.002	2.3–38.5	4.6	0.070	0.9–23.9
25–49	2271	2.6	4.1	0.057	1.0–17.3	2.8	0.221	0.5–14.7
50+	618	0.6	1	1				
Locality type								
Urban formal	2324	3.4	3.8	0.027	1.2–12.2	3.4	0.041	1.1–10.6
Urban informal	537	3.5	4.3	0.024	1.2–15.4	2.1	0.238	0.6–7.9
Rural informal (tribal)	788	3.1	4.2	0.014	1.3–13.0	2.7	0.120	0.8–9.2
Rural formal	337	0.8	1	1				
Race of respondent								
Black	2411	3.3	54.6	<0.001	7.4–405.5	23.4	0.003	3.0–181.5
White	534	2.1	34.3	0.002	3.5–332.3	26.1	0.008	2.3–294.8
Coloreds	644	4.0	67.4	<0.001	7.6–601.6	22.6	0.003	2.8–182.9
Indian	388	0.1	1	1				
Level of education								
No schooling	172	0.6	0.2	0.107	0.02–1.5			
Primary School	656	1.0	0.3	0.073	0.1–1.1			
High School to Std 9	1502	4.3	1.3	0.503	0.6–3.2			
Matric	1128	3.0	0.9	0.887	0.4–2.4			
University or College	528	3.1	1					
Employment status								
Unemployed	2212	2.8	0.4	0.003	0.2–0.7	1.3	0.521	0.6–3.1
Employed	1463	2.5	0.3	0.005	0.2–0.7	1.1	0.791	0.4–3.1
Student	311	7.2	1	1				
Age at sexual debut: mean (SE)	3959	16.5 (0.35)	0.97	0.002	0.9–1.0	0.96	0.029	0.9–1.0
Perceived risk of HIV								
High	1180	3.8	1.4	0.267	0.8–2.7			
Low	2775	2.7	1					
Ever tested for HIV								
Yes	2666	3.0	0.9	0.834	0.5–1.7			
No	1301	3.2	1					
History of STI (past 12 months)								
Yes	337	7.1	2.8	0.002	1.4–5.5	2.5	0.011	1.2–4.9
No	3632	2.6	1	1				
Duration of current relationship								
Less than a year	356	19.3	14.2	<0.001	7.8–25.7	10.5	<0.001	5.1–21.6
More than a year	3584	1.7	1	1				
Condom use at last sex								
Yes	1049	2.8	1.99	0.08	0.9–4.3			
No	1351	5.5						
Do you think your current partner has had other partners last 12 months								
Yes	575	7.6	3.7	<0.001	2.0–6.8	2.6	0.014	1.2–5.7
No	3411	2.2	1	1				
Community accepts young women to have children before marriage								
Agree	340	6.3	2.3	0.032	1.2–4.8	1.5	0.281	0.7–2.9

Table 4 Continued

	Number of sexual partners in the last 12 months							
	Univariate models				Multivariate model			95% CI
	n	% With ≥2 sexual partners (%)	OR	P-values	OR	P		
Disagree	3616	2.9	1	1				
Community accepts young men to have children before married								
Agree	322	5.7	2.1	0.075	0.9–4.8			
Disagree	3631	2.8	1					
Community accepts young women to have older male sexual partners for money								
Agree	109	8.4	0.3	0.089	0.1–1.2			
Disagree	3850	2.8	1					
Community accepts young men to have older female sexual partners for money								
Agree	101	6.0	0.3	0.066	0.1–1.1			
Disagree	3857	2.8	1					

Table 5 Relationship between the number of partners in the last 12 months and HIV infection by sex and age.

Variables	Males				Females			
	n	HIV+ (%)	OR [95% CI]	P-value	n	HIV+ (%)	OR [95% CI]	P
Age in years (15–24)								
Two or more partners	197	3.2	0.7 [0.2–2.1]	0.478	64	22.6	1.2 [0.6–2.8]	0.598
One partners	419	4.8	1		835	19.1	1	
Age in years (25–49)								
Two or more partners	148	27.4	2.2 [1.2–4.1]	0.011	34	42.0	2.2 [0.8–6.2]	0.127
One partners	981	14.6	1		1673	24.5	1	
Age in years (50+)								
Two or more partners	22	10.1	1.8 [0.3–10.1]	0.273	4	0.0		
One partners	490	5.8	1		459	5.9		
Total (15 years and above)								
Two or more partners	367	14.6	1.5 [0.9–2.4]	0.142	102	31.7	1.8 [1.0–3.4]	0.071
One partners	1890	10.5	1		2967	20.5	1	

‘The problem in my community, it is considered a norm for a guy to have multiple partners, that is not a shame. . . ., the problem with families is that they are too strict with girls. For instance, girls are expected to be well-behaved, it is expected of boys to have multiple partners and those kinds of things’. (Young female)

Furthermore, MSP is associated with a higher social status within the community and defines manhood. MSP may be a source of power and may even contribute to men’s self-worth.

‘Our problem is that we admire a person who goes with a different girl every night and we want to be like that while not

knowing what goes on behind closed doors. You feel like this will make you stand out in your community’ (Adult male)

Men’s involvement in these relationships was considered to help preserve steady relationships. The discourse in support of this include the idea that men get bored quickly, and that sexual variety allows them to appreciate their steady partners at home and by doing so they maintain their marriages or long-term relationships.

‘Men get bored quickly. Yes, men want variety, you go to the girls. Young girls of today know how to make things happen. . . Eating pap every day is not a good thing, my brother, heh? (Laughs). A little bit of change is nice (pause), it

is also good for the family because when you come back to pap. . .helele, it tastes like Kentucky'. (Adult male)

Participants acknowledged that women also engage in MSP. Poverty is the main reported driver of women's MSP and transactional sex behavior even in cases where she considers herself as being in a 'loving relationship'. However, the social culture of greed and instant acquisition of wealth is also highlighted as an important determinant of MSP among women.

'I also know one person she is my friend although not my best friend, who has more than two sexual partners. She faced with a situation whereby her real partner is unemployed but she still loves him. The second one is helpful in buying her some groceries and the third one is helping in buying extras like looking after her hair and other things. She insisted that she's not proud of what is doing but because of poverty'. (Adult female)

'Like the. . .the 'Sugar dads-' they do that. They book you in, for example, at the Protea Hotel. From that point they spoil you rotten. You have to say 'yes' to them because everything that you get is expensive-like rings, chains. You just get expensive clothes and cellphones. Now. . .well, I just want to say, I will never leave a man like that who spoils me so rotten'. (Young female)

Women who suspect their partners of infidelity and feel neglected take on additional sexual relationships to secure financial support. This is also motivated by fear of being abandoned by their current partner.

'What I mean is that since I am a housewife without a job, I discovered that my husband has an affair with my neighbor. I have 4 children and I do not have a job. I then felt unloved and neglected because he was not giving me all the things he used to supply his family with, he did not care about me anymore. I decided to go and find a second partner who would do these things for me, that is what I meant'. (Adult female)

The data suggest that in some cases MSP among young women is a result of pressure from parents. Women are encouraged to date older men and/or a variety of male partners because they are able to provide not only for their daughters but also for their entire family.

'You find that other mothers they encourage like their children having multiple partners just because they bring in so much in their homes'. (Young female)

'This has been bugging me for some time, in other families, some parents have this negative way of thinking that you should date an older guy so that you can have this and that at

home, then that generates people into having multiple partners because the parents are encouraging that thing of me having Mr. Finance, Mr. Transport, Mr. Whatever. . .'. (Young female)

Intergenerational relationships were not only amongst older males and younger females but also involved among older females termed as 'sugar mommies' and younger males. Younger boys like their female counterparts were said to be motivated by material gain and access to resources.

'Sometimes you get a woman who is employed but does not have a husband and is not getting the satisfaction and you find young guys doing it. For a younger guy like me who does not have a job and that money, it is an opportunity for me'. (Adult male)

Discussion

This study examined determinants of MSP in the previous 12 months using a nationally representative sample and provides valuable quantitative and qualitative data for a better understanding of the predictors of MSP in South Africa. The prevalence of MSP was generally higher among men compared with women. Furthermore, among both men and women, MSP was significantly higher among black participants followed by coloreds and whites compared with Indian/Asians. Participants reporting MSP were also more likely to report a history of STI, be in a relationship for less than a year and suspect their main partner of infidelity. Additionally, MSP was higher among younger men (15–24 years old), those who reported condom use at last sex and those who perceived a community-level acceptance of young men and women having children out of marriage. Among women additional predictors of MSP were younger age at sexual debut and living in formal urban areas rather than formal rural areas.

The qualitative data showed that gendered justifications and socially held beliefs function to 'normalize' MSP amongst males while rendering the same practice by women taboo or improper. Culturally speaking, wealthy African men are almost expected to take on multiple wives, therefore MSP in and out of the context of marriage may result from wealth acquisition and therefore becomes a mark of success.²³ Although the engagement in MSP by women is frowned upon, women do engage in MSP albeit to meet subsistence needs rather than for social status, particularly when a partner is perceived to be unfaithful and one's financial and emotional support base is threatened. However, the data showed that women also engaged in MSP to access fashionable lifestyle items. MSP among women highlight the role of gender-based discrepancies in economic opportunities in the choices that

women make. This is further exploited as a means of supporting entire households as demonstrated by the pressure applied on young women and girls to engage in MSP and transactional sex.⁵ These results are also supported by other studies with similar findings.^{8,11,15,16,19,23–25}

MSP was associated with relationships of short duration (less than a year) among both men and women, suggesting that serial monogamous or short-term concurrent relationships are more prevalent rather than long-term concurrent partnerships. In a study among young Kenyan people, Xu, Luke and Zulu found that the duration of the initial partnership was positively and significantly associated with the likelihood of entering concurrency among males but not females.²⁶ Furthermore, Nshindano and Maharaj¹¹ found that short-term serial sexual relationships were more common among Zambian young people rather than concurrent relationships.

MSP was more likely among those who suspected their main partner of infidelity. Similar findings were reported among youth in Kenya.²⁶ The association between MSP and condom use at last sex is similar to finding from previous studies showing that individuals use condoms when they feel at risk of HIV either because of personal risky behavior or the suspected unfaithfulness of their primary sexual partners.^{27,28,29}

Similarly, to previous studies, our data highlight the association between MSP and HIV risk.³⁰ However, the association between HIV risk and MSP among women suffers from low statistical power as women tend to underreport MSP in general. Previous research has also shown that younger men and women with a history of STI are more likely to report MSP.^{9,30,31} However, STI history is most likely a consequence of MSP than a determinant.

Our study provides important information on determinants of MSP and shows the great need to address the underlying social and economic factors that promote MSP in South Africa. MSP is an important risk factor for HIV and partner reduction in association with the promotion of condom use remains an important objective for HIV prevention. While various partner reduction programs have been undertaken in South Africa, most partner reduction messaging is focused around the risk of acquiring HIV from multiple concurrent partners and less is mentioned about the high risk of contracting HIV from a high serial partner turnover, particularly in a high HIV prevalence setting.^{32,33} Currently, the literature on determinants of partner reduction is limited and further exploration of this topic is needed to further inform interventions to reduce MSP and therefore HIV risk. Furthermore, the impact of current partner reduction program on MSP should be evaluated in a nationally representative study to inform the development of improved risk reduction

approaches. Finally, poverty is clearly a driver of MSP particularly among women; therefore, poverty reduction initiatives need to be strengthened. However, the success of poverty alleviation programs are long-term goals and a greater emphasis should still be on the importance of correct and consistent condom use for the prevention of HIV infection.

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