

Review



Determinants of Information about Sexual Health and High-Risk Sexual Behaviour amongst Migrant Youths in Johannesburg, South Africa

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Abstract: Sexual health is essential to the complete well-being of every individual, and provision of all-inclusive and superior-quality information about living a healthful sexual life is necessary for everyone in a community, especially for youths. Using data collected in 2019 from 467 male and female immigrant youths between 18 and 34 years of age who resided in a suburb of the inner city of Johannesburg, this secondary analytical study examined the determining factors of sources of information about sexual health, using condoms inconsistently, and engaging in multiple sexual relationships. Binary logistic regression and negative binomial regression models were employed to understand the relationships between explanatory variables and outcome variables. The determinants of the sources of information about sexual health were gender, educational attainment level, wealth index, and age at first sexual intercourse. Gender, age group, marital status, and migration status were the determining factors for inconsistency of condom use. Gender, migration status, marital status, age at first sexual intercourse, and having had sex while drunk were the determinants of engaging in multiple sexual relationships. Avoiding behaviours that expose individuals to sexual risks and the negative consequences of unprotected sexual activity is crucial for youths. This study shows that receiving information about sexual health from informal sources and high-risk sexual behaviour are major public health problems amongst the immigrant youths.

Keywords: sexual health; immigrant youths; high-risk sexual behaviour; multiple sexual relationships; condom; Johannesburg; South Africa

1. Introduction

A healthy sexual life is essential to the complete well-being of every individual at all ages. The World Health Organization (WHO) defines sexual health as not being "merely the absence of disease, but also of having pleasurable and safe sexual encounters, free of coercion, discrimination and violence" [1]. Access to all-inclusive, good-quality information about living a pleasurable sexual life helps to avoid behaviours that expose individuals to sexual risks and their negative consequences, and is therefore essential to achieving sexual health [2]. The negative consequences of unhealthy sexual behaviour involving having unprotected sex and engaging in multiple sexual partnerships are a public health concern for the youths [3–5]. Migration is a social phenomenon that exposes migrants to different types of vulnerabilities, low risk perception, and increased risk behaviours, as well as feelings of invincibility from being away from home [6,7]. International migration from neighbouring countries into South Africa is primarily due to economic reasons and predominantly involves youths in search of employment opportunities [8–10]. The migration



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Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). process exposes youths to many risks and vulnerabilities, including food insecurity, unstable accommodations, safety hazards, and risky sexual behaviours [11–13]. Previous studies have linked immigrants in South Africa to risky sexual behaviours including low perception of risks [6,14], lack of condom use or inconsistent condom use [11,15,16], multiple sex partnerships [11,17,18], and a high HIV prevalence [18–20]. Studies in migration-affected communities in Kenya, Malawi, and South Africa showed that many immigrants engage in risky sexual behaviours, and they lack access to good-quality information about their sexual health [11]. Despite the increasing population of immigrants in Johannesburg—the hub of immigrant youths in South Africa-there is a scarcity of evidence concerning the source of the information about sexual health and the prevalence of high-risk sexual behaviours, specifically inconsistent condom use during intercourse and engaging in sexual relationships with multiple partners. National studies on HIV prevalence, incidence, and sexual behaviours are not disaggregated by migration status [21]. There is a dearth of information on the sexual behaviour of immigrant youths, as well as evidence to support needed interventions. This study is based on the Social Determinants of Health of immigrants, adapted from Dahlgren G. & Whitehead M. [22], which posits that individual and lifestyle factors (such as age, sex, educational attainment, separation from cultural norms, and legal documentation) affect the health and well-being of migrants. These factors were identified in determining the sources of information about sexual health, using condoms inconsistently, and engaging in sexual relationships with multiple partners amongst selected immigrant youths in the inner city of Johannesburg.

2. Materials and Methods

This study involved secondary analysis of data collected within a suburb of the inner city of Johannesburg in December 2019, which investigated the sexual behaviours amongst immigrant youths between 18 and 34 years of age and how they accessed sexual and reproductive health services [23]. An interviewer-administered questionnaire captured participants' socio-economic characteristics and sexual and reproductive health data from a sample of 467 participants, using a multi-stage sampling technique involving systematic sampling techniques from the enumeration areas.

The multi-stage sampling technique involved the selection of nine enumeration areas (EAs) out of the 30 EAs in the study area. Listing and mapping of the streets (clusters) in the selected EAs formed the sampling frame. Subsequently, a sample of the specified number of units (households) was selected in the second stage. One respondent per household was included in the survey. Details of the sampling strategy are described in another study [24]. Using the Open Epi Version 3.05.07 software [25] for estimating a population proportion with a specified absolute precision, a sample size of 417 was required to estimate the proportion of migrant youths adopting safe sexual practices with a precision of 5%. Adjusting for a non-response rate of 12% and a design effect of 1.25, the final sample size was 467. The design effect was used to correct for estimated sample variance due to complex sampling design and to account for within-group differences among the respondents.

Data on 435 sexually active participants were analysed using STATA MP14 (Stata-Corp LLC, College Station, TX, USA). Three outcome variables measured in the present study were the sources of information about sexual health 6 months preceding the survey, inconsistent condom use during sexual intercourse, and engaging in multiple sexual relationships (MSRs) 12 months preceding the survey. In this study, MSR is defined as engaging in heterosexual activities with two or more people within 12 months preceding the survey. The sources of information about sexual health were constructed from two questions. Participants were asked if they had received any information about sexual health (based on the definition by WHO) 6 months preceding the survey. The possible answers were "Yes" or "No". This was followed by a question on the sources of the information (posters, television/radio, community health centre, private clinic, government hospital, parents, peer educator, teacher, and friends). This variable has categories: formal (community health centre, private clinic, government hospital, teacher); informal (posters, television/radio, parents, peer educator, friends); and none. This was reclassified into "Formal" and "Informal/None" during analysis. To assess inconsistent condom use, participants were asked the frequency of their condom use while having sexual intercourse. The possible answers were "Never," "Sometimes," and "Always." Those whose responses were "Never" and "Sometimes" were further reclassified as "inconsistent users," while those whose responses were "Always" were classified as "consistent users." To assess MSRs 12 months preceding the survey, participants were asked the total number of sexual partners they had 12 months preceding the survey. In this study, sexual relationships refer to heterosexual sex. The explanatory variables were gender, age, marital status, wealth index, highest level of education attained, age at first sexual intercourse, and having ever had sex while drunk. Wealth index was derived by doing a principal component analysis on selected household assets (ownership of a television, radio, refrigerator, computer, telephone, microwave oven, washing machine, bicycle, motorcycle, or car) to generate three categories of wealth quintiles—poor, middle, and rich. Marital status was assessed through the categories of never married (single) and ever married (married, cohabiting, separated, and divorced). The highest level of education attained was classified into primary or incomplete secondary and completed secondary or tertiary education. Migration status was classified using the different categories of current immigration status. Those with legal documents that authorized them to be in the country were reclassified as documented; those without any legal authorization were classified as undocumented, while the third category were those who reported themselves as asylum seekers.

Descriptive statistics involving the measure of central tendency were used to explain the attributes and sexual history of the sampled respondents. Additionally, tests of association between each independent and dependent variables were conducted using the Pearson's chi-square test of association. For the count variable, Poisson regression analysis was used to test for over-dispersion. To estimate the determining factors among immigrant youths for sources of information about sexual health and inconsistent use of condoms, both unadjusted and adjusted logistic regression models were used. However, unadjusted and adjusted negative binomial regression models were used to estimate the determinants of MSRs during the 12 months prior to the study. The statistical significance level was set at a *p*-value of less than 0.05 and a 95% confidence interval.

3. Results

3.1. Determinants of Information about Sexual Health and Risky Sexual Behaviours

3.1.1. Background Characteristics and Summary of Sexual History

This study consisted of a sample of 435 participants, of which 57.7% were females (Table 1). The mean age was 26.4 for females and 26.7 for males. Four out of 10 were 18–24 years of age, while six out of 10 were between 25 and 34 years of age. Most of the participants had secondary and post-secondary education (69.0%), and many were never married (57.7%). While the majority were poor (39.1%), gender disaggregation showed that 51.8% of females and 48.2% of males were poor. Immigration status had three categoriesdocumented (32.0%), asylum seekers (23.2%), and undocumented (44.8%). The majority of the participants are from Zimbabwe (90.1%), and most of them identify as Christians (82.3%). Two (0.5%) reported their country of birth as South Africa. It is important to note that these are not South African citizens but children born to undocumented migrant parents. Table 2 shows the sexual history of the respondents. About 65% of the participants received information regarding sexual health six months preceding the survey, of which 44.8% were formal sources, and 15.4% and 39.8% were informal sources and no information sources, respectively. The mean age of sexual initiation was 17.8 years and 18.4 years for males and females, respectively. Regarding how often participants used condoms during sexual intercourse, the majority used condoms sometimes (57.7%); 10.9% of males and 15.9% of females have never used condoms. While only about 28.5% reported using condoms always, only 34.2% of males and 24.3% of females reported having protected sex by always using condoms. The mean number of sexual partners was 2.24; 2.73 for males. The highest number of sexual partners 12 months prior to the study was 22 for males and 10 for females. About a third of the study sample reported to have had sex while drunk (35.9%), with gender disaggregation showing 46.2% of males and 28.3% of females.

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Variable	Total		Ma	Male		Female	
	n	(%)	п	(%)	n	(%)	
Gender	435		184	(42.3)	251	(57.7)	
Religion							
Christian	358	(82.3)	131	(71.2)	227	(90.4)	
Muslim	15	(3.5)	11	(6.0)	4	(1.6)	
Traditional Religion	18	(4.1)	13	(7.1)	5	(2.0)	
No Religion	43	(9.9)	28	(15.2)	15	(6.0)	
Hindu	1	(0.2)	1	(0.5)	0	(0)	
Country of birth							
Botswana	3	(0.7)	-	-	3	(1.2)	
Democratic Republic of Congo	6	(1.4)	2	(1.1)	4	(1.6)	
Lesotho	1	(0.2)	-	-	1	(0.4)	
Malawi	26	(6.0)	17	(9.2)	9	(3.6)	
South Africa	2	(0.5)	2	(1.1)	-	-	
Uganda	2	(0.5)	2	(1.1)	-	-	
Zambia	3	(0.7)	3	(1.6)	-	-	
Zimbabwe	392	(90.1)	158	(85.9)	234	(93.3)	
Mean age (years) (SD)	26.5 (4.62)		26.7(4.80)		26.4 (4.48)		
Age group (years)							
18–24	174	(40.0)	71	(40.8)	103	(59.2)	
25–34	261	(60.0)	113	(43.3)	148	(56.7)	
Educational attainment level							
Primary/Incomplete secondary	135	(31.0)	57	(42.2)	78	(57.8)	
Secondary/Tertiary	300	(69.0)	127	(42.3)	173	(57.7)	
Marital status							
Never married	251	(57.7)	116	(46.2)	135	(53.8)	
Ever Married	184	(42.3)	68	(37.0)	116	(63.0)	
Wealth index							
Poor	170	(39.1)	82	(48.2)	88	(51.8)	
Middle	163	(37.5)	61	(37.4)	102	(62.6)	
Rich	102	(23.4)	41	(40.2)	61	(59.8)	
Migration status							
Documented	139	(32.0)	53	(38.1)	86	(61.9)	
Asylum seeker	101	(23.2)	36	(35.6)	65	(64.4)	
Undocumented	195	(44.8)	95	(48.7)	100	(51.3)	

Table 1. Background characteristics of the study sample.

3.1.2. Factors Associated with Source of Information about Sexual Health Six Months Preceding the Survey

Table 3 shows that social and demographic characteristics—especially gender, educational attainment, marital status, and wealth index—were associated with the source of information on sexual health six months preceding the survey. Marked gender differences exist, with females being more likely to have obtained information about sexual health from a formal source in comparison to males (AOR = 2.36, CI: 1.50–3.72). Participants with secondary education and higher (AOR = 1.66, CI: 1.01–2.73) were more likely to have obtained information about sexual health from a formal source, compared to those with primary education or incomplete secondary education. Regarding wealth index, the rich participants had a higher likelihood of having obtained information about sexual health from a formal source compared to the poor (AOR = 2.41, CI: 1.32–4.42). In addition, participants who initiated sexual intercourse from their 18th birthday onwards were more likely to have obtained information on sexual health from formal sources in comparison to those who initiated sexual intercourse before their 18th birthday (AOR = 2.11, CI: 1.32–3.37).

Variable	Total		Male		Female		X7.1
	n	(%)	n	(%)	п	(%)	<i>p</i> -Value
Gender	435		184	(42.3)	251	(57.7)	
Sexual health information							< 0.001
Yes	282	(64.8)	87	(30.8)	195	(69.2)	
No	153	(35.2)	97	(63.4)	56	(36.6)	
	Source	of Sexual He	alth Informa	ation			
Informal	195	(44.8)	59	(32.1)	136	(54.2)	
Formal	67	(15.4)	28	(15.2)	39	(15.5)	
None	173	(39.8)	97	(52.7)	76	(10.3)	
Maara and the first and (maara) (CD)	18.1		17.8		18.4		
Mean age at first sex (years) (SD)	(2.56)		(2.88)		(2.29)		
Maan much on of annual monterior (CD)	2.2		2.7		1.9		
Mean number of sexual partners (SD)	(2.17)		(2.75)		(1.52)		
Age at sexual initiation (years)							< 0.01
9–17	160	(39.7)	80	(50.0)	80	(50.0)	
18–28	243	(60.3)	88	(36.2)	155	(63.8)	
Frequency of condom use		. ,		. ,			< 0.05
Never	60	(13.8)	20	(10.9)	40	(15.9)	
Sometimes	251	(57.7)	101	(54.9)	150	(59.8)	
Always	124	(28.5)	63	(34.2)	61	(24.3)	
No response	138	(31.7)	42	(22.8)	96	(38.3)	

 Table 2. Sexual history of immigrant youths Johannesburg, 2019.

Table 3. Factors associated with information about sexual health six months preceding the survey.

Variable	Crude OR	95% CI	Adjusted OR	95% CI
Gender				
Male	1		1	
Female	2.55 ***	1.68-3.72	2.36 ***	1.50-3.72
Age group (years)				
18-24	1		1	
25–34	1.42	0.96-2.09	1.00	0.59-1.71
Educational attainment level				
Primary/Incomplete secondary	1		1	
Complete secondary/Tertiary	1.91 **	1.25-2.91	1.66 *	1.01-2.73
Marital status				
Never married	1		1	
Ever married	1.80 **	1.23-2.65	1.36	0.82-2.25
Wealth index				
Poor	1		1	
Middle	2.06 ***	1.32-3.22	1.66 *	1.01-2.73
Rich	2.86 ***	1.72-4.76	2.41 **	1.32-4.42
Migration status				
Documented	1		1	
Asylum	0.78	0.47-1.31	1.06	0.60-1.89
Undocumented	0.56 *	0.36-0.87	0.83	0.48-1.43
Age at first sex (years)				
9–17	1		1	
18–28	2.36 ***	1.55-3.59	2.11 **	1.32-3.37
Ever had sex while drunk				
No	1		1	
Yes	1.08	0.68-1.71	1.26	0.74-2.13
No response	1.60 *	1.00 - 2.58	1.25	0.73-2.13

Note: OR—Odds ratio; CI—Confidence interval; * *p*-value < 0.05; ** *p*-value < 0.01; *** *p*-value < 0.001, reference value = 1.

3.1.3. Factors Associated with Inconsistent Condom Use

The factors associated with using condoms inconsistently are presented in Table 4. The results from unadjusted and adjusted binary logistic regression analysis revealed that demographic factors such as gender, age group, marital status, and migration status were associated with using condoms inconsistently. The unadjusted logistic regression showed an association between gender and inconsistent condom use (COR = 1.62, CI: 1.06-2.46); the strength of the association increased in the adjusted multivariate analysis (AOR = 2.34, CI: 1.38–3.96). The unadjusted and adjusted logistic regression model showed a marked difference in age group, with older participants (25–34 years) being more likely to utilise condoms inconsistently compared to their younger counterparts aged 18-24 years: (COR = 4.64, CI: 2.97–7.24) and (AOR = 3.10, CI: 1.71–5.59), respectively. Participants who were married (COR = 5.80, CI: 3.42-9.83) and those who reported their immigration status as asylum seekers (COR = 2.75, CI: 1.49-5.09) were more likely to use condoms inconsistently. In the adjusted logistic regression models, the direction of associations was similar to the unadjusted regression when the model included socio-demographic and other variables. Ever married participants were more likely to use condoms inconsistently compared with their never-married counterparts (AOR = 4.61, CI: 2.36–8.99). There was also a significant association between migration status and using condoms inconsistently with the asylum seekers, and the undocumented had more likelihood of using condoms inconsistently compared to those who were documented (AOR = 3.53, CI: 1.69–7.37; AOR = 2.73, CI: 1.43–5.23).

Table 4. Determinants of using condoms inconsistently.

Variable	COR	95% CI	AOR	95% CI
Gender				
Male	1		1	
Female	1.62 *	1.06-2.46	2.34 ***	1.71-3.96
Age Group (years)				
18–24	1		1	
30–34	4.64 ***	2.97-7.24	3.10 ***	1.71–5.59
Educational attainment level				
Primary/Incomplete secondary	1		1	
Complete secondary/Tertiary	0.74	0.46-1.18	1.05	0.58-1.90
Marital status				
Never married	1		1	
Ever married	5.80 ***	3.61-10.35	4.69 ***	2.36-8.99
Wealth index				
Poor	1		1	
Middle	1.17	0.71-1.90	0.98	0.54 - 1.77
Rich	0.75	0.44-1.27	0.89	0.44 - 1.79
Migration status				
Documented	1		1	
Asylum	2.75 ***	1.49-5.09	3.53 ***	1.69-7.37
Undocumented	1.56	0.98 - 2.48	2.73 **	1.43-5.23
Age at first sex (years)				
9–17	1		1	
18–28	1.19	0.07 - 1.84	0.58	0.33-1.01
Ever had sex while drunk				
No	1		1	
Yes	1.18	0.70-2.00	1.22	0.66-2.27
No response	0.67	0.41 - 1.14	0.53 *	0.28-0.98

COR—Crude odds ratio; AOR—Adjusted odds ratio; CI—Confidence interval; * p-value < 0.05; ** p-value < 0.01; *** p < 0.001, reference value = 1.

3.1.4. Factors Associated with Multiple Sexual Relationships

As presented in Table 5, the socio-demographic factors associated with multiple sex partnerships in the unadjusted models were gender, marital status, and wealth index. Other

factors include migration status, age at first sex, and history of having had sexual intercourse while drunk. The unadjusted incidence risk ratio (UIRR) showed that being a female reduced the risk of MSRs 12 months preceding the survey (UIRR = 0.69, CI: 0.59–0.80). Similarly, having been married and being rich reduced the risk of MSRs (UIRR = 0.73, CI: 0.62–0.85; and UIRR = 0.72, CI: 0.59–0.89). The risk of MSRs was higher amongst undocumented immigrants (UIRR = 1.47, CI: 1.23–1.76). Initiating sexual intercourse from the 18th birthday onwards reduced the risk of MSRs compared to those who initiated sex before they were 18 years of age (UIRR = 0.69, CI: 0.59–0.80). The risk of MSRs was further increased amongst those who had sexual intercourse while drunk (UIRR = 1.55, CI: 1.30–1.85).

Table 5. Unadjusted and adjusted odds ratio using negative binomial regression analysis for multiple sex relationships 12 months preceding the survey.

Variable	Unadjusted IRR	95% CI	Adjusted IRR	95% CI
Gender				
Male	1		1	
Female	0.69 ***	0.59-0.80	0.83 *	0.71-0.96
Age group (years)				
18–24	1		1	
25–34	1.01	0.84 - 1.20	1.18	0.99-1.41
Educational attainment level				
Primary/Incomplete secondary	1		1	
Complete secondary/Tertiary	0.86	0.77 - 1.01	0.97	0.82 - 1.15
Marital status				
Never married	1		1	
Ever married	0.73 ***	0.62-0.85	0.77 **	0.65-0.91
Wealth index				
Poor	1		1	
Middle	0.88	0.74 - 1.04	0.92	0.78 - 1.10
Rich	0.72 **	0.59–0.89	0.85	0.68-1.03
Migration status				
Documented	1		1	
Asylum	1.17	0.95 - 1.45	1.11	0.89-1.38
Undocumented	1.7 ***	1.23-1.76	1.35 **	1.09-1.694
Age at first sex (years)				
9–17	1		1	
18–28	0.65 ***	0.56-0.77	0.73 ***	0.62-0.85
Ever had sex while drunk				
No	1		1	
Yes	1.55 ***	1.30 - 1.85	1.47***	1.24 - 1.77
No response	0.87	0.72-1.07	0.95	0.78–1.16

IRR—Incidence risk ratio; CI—Confidence interval; * p-value < 0.05; ** p-value < 0.01; *** p < 0.001, reference value = 1.

In the adjusted model, gender and marital status were the socio-demographic factors that predicted the risk of MSRs. Females had a 17% lower risk of engaging in MSRs compared to males (AIRR = 0.83, CI: 0.71–0.97). Participants who were married or who had been married had a 23% reduction in risk of MSRs compared to those who were never married (AIRR = 0.77, CI: 0.65–0.93). Being an undocumented migrant increased the risk of engaging in MSRs by 35% as compared to their documented counterparts (AIRR = 1.35, CI: 1.10–1.64). However, participants who initiated sexual intercourse from their 18th birthday onwards had 27% reduced risk of MSRs compared to those who initiated sex before they were 18 years of age (AIRR = 0.73, CI: 0.62–0.85). On the other hand, participants who had sexual intercourse while drunk had a higher risk of MSRs by 50% in comparison to those who did not have sex while drunk (AIRR = 1.50, CI: 1.25–1.79).

4. Discussion

The present study identified the determinants of the sources of information about sexual health, whether formal or informal. Additionally, it showed high rates of risky sexual behaviours, especially using condoms inconsistently and engaging in multiple sexual relationships, amongst the participants. Some of the study participants exhibited early age of sexual exposures. For example, engaging in sexual intercourse at an early age of nine years exposes young people to the risks of contracting sexually transmitted infections, HIV/AIDS, and infertility. The young age at sexual debut in this study agrees with other studies that reported the age of sexual initiation to be lower than 11 years [26–28].

Obtaining correct and comprehensive information about sexual health from a reliable source such as health services is essential to live a healthy sexual life. The present study found that most female participants obtained sexual health information from formal sources such as government hospitals and clinics. This could be related to the fact that females seek help at hospitals and clinics for pregnancy and childbearing purposes. The finding that many of the males in this study do not obtain information on sexual health or obtain it from informal sources can be linked to the poor health-seeking behaviour of some men [29,30]. Immigrant males who are undocumented may face an additional barrier for fear of being apprehended. This study found that those participants who had completed secondary school and higher, and those who were rich, accessed information on sexual health information from formal sources. This is consistent with findings from other studies [31,32]. Public health programs targeting youths in Johannesburg should include immigrant youths, especially the poor and uneducated, in the provision of accurate and high-quality information on sexual health to reduce negative sexual health outcomes in the general population.

Inconsistent condom use was prevalent in this study. Despite the dual protection provided by condoms in preventing sexually transmitted infections and unplanned pregnancies, many of the female respondents reported inconsistent condom use. Inconsistent condom use reported by the female participants could be due to the imbalance of power dynamics and the lack of economic independence of many female immigrant youths, thereby leaving them unable to negotiate safe sex. Inconsistent or lack of condom use among immigrant youths is consistent with findings from previous studies in Sweden, Portugal, and Kenya [33–35]. Findings that participants in the age group 25–34 years used condoms inconsistently or engaged in sexual intercourse without condoms is consistent with other studies among immigrants in Kenya and South Africa [11]. Consequently, public health programs need to target both male and female immigrant youths over 25 years of age for health education interventions. Consistent with other research in South Africa, our study found participants who were married or that have experienced marriage to use condoms inconsistently [15,36]. This finding may be due to a gender power imbalance and the gender inequality of immigrant women, especially those who depend on their spouses for their livelihood. Furthermore, many of the immigrants are from patriarchal societies, and married women may face dire consequences for asking their spouse to use condoms [37]. The migration status of participants was a determinant of inconsistent condom use, with undocumented immigrants being more likely to be inconsistent or non-condom users. This finding is not surprising, given that being undocumented exposes migrants to physical and sexual exploitation and abuse. Studies have shown the link between mobility and lack of condom use [36].

We found the risk of engaging in MSRs to be higher amongst male migrants compared to females. This may be due to disruption and loneliness caused by migration [11,38]. In addition, some of the males may come from sociocultural societies where engaging in MSRs by men is culturally acceptable. Previous studies have documented the risks of MSRs among immigrants [11,16–19], all of which reported engagement in MSRs amongst immigrants. Present findings that undocumented migrants were at increased risk for MSRs are consistent with a previous study in Johannesburg [17]. Consistent with other studies [39], our study further showed that initiating sexual intercourse between 9–17 years

increased the risk of MSRs among immigrant youths, compared to those who initiated sex from their 18th birthday onwards. Excessive alcohol consumption is known to affect the mental health of people. We found that having sex while drunk increased the risk of MSRs among the participants, which is consistent with previous findings among immigrants [40, 41] and with the knowledge that excessive alcohol consumption affects sexual decision making and mental health [42]. This study has some limitations. Firstly, it is a secondary analysis, hence some variables of importance in a sexual health study, such as sexual orientation and sexual pleasures, were not included. Secondly, the data were collected from participants that resided in the study setting, of which a vast majority were from Zimbabwe. While people of other nationalities go to the study setting for businesses, only the residents were included in the survey.

5. Conclusions

This study showed that immigrant youths in Johannesburg are prone to risky sexual behaviours. While some have information about sexual health, others do not. Using condoms inconsistently and engaging in multiple sexual relationships are prevalent among immigrant youths, a cause for concern for both migrants and non-migrants within the geographical location and in the city of Johannesburg. This study underscores the need for increased sexual health information inclusive of immigrant youths to reduce the transmission of STIs and HIV infections. Sexual and reproductive health programmes located in the inner city of Johannesburg should actively discourage risky behaviours, especially multiple sex partnerships among male migrants, and encourage consistent use of condoms among female immigrants. Additionally, public health programmes in Johannesburg need to make sexual health information and education messages available to everyone living in a suburb highly populated by immigrants, especially since everyone engaging in risky sexual behaviour is at risk of HIV. Educational programmes providing sex education, information, and communication should be strengthened to ensure continued provision of behavioural change interventions targeting both immigrants and non-migrants, to reduce the consequences of poor sexual health in the general population.

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