

HIV-Related Risk Behavior, Knowledge and Risk Perception among Young Adults Attending Out-Patients' Department at a Referral Hospital in Namibia

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Abstract

Introduction: HIV currently remains a leading cause of adult morbidity and mortality in Namibia, which continues to have one of the highest HIV prevalence rates in the world. Namibia is experiencing one of the largest HIV epidemics in Africa with a reported national prevalence of 15.3%. Globally, young adults are considered to be most vulnerable to HIV/AIDS, and therefore worth assessing the prevalence of HIV risk behavior in relation to the knowledge of the disease among this age group.

Methods: We used a cross-sectional study on a sample 385 young adults (18-35 years) attending the out-patients' department at a referral hospital in Namibia. Relative importance index (RII) was used to describe the overall score for knowledge on HIV and risk perception, alcohol and drug use behavior, condom use behavior, health status for each study participant. The chi-square test and multiple regression analysis were employed for data analysis.

Results: The participants; 56% were females, the average age (SD) was 26.4 years (5.3), 9% were educated up to primary school only, 21% were unemployed while 38% were either students or intern, 56% reported residence in Windhoek urban area while 38% and 6% resided in Windhoek rural or other classification, 51% were of the Oshiwambo ethnicity while 49% were from other ethnical groupings, 52% were single while 26% and 18% were married and cohabiting respectively. There was a significant association between marital status and knowledge RII score while adjusting for other study variables, the odds of having knowledge RII score below median was 36% less in participants who are not single compared to those single (OR=0.36, p=0.012). There was boundary significant association between drug use RII score and knowledge RII score while adjusting for other study variables, the odds of having knowledge RII score below median was 1.95 times more in participants with drug use RII score below median (OR=1.95, p=0.067). There was no association between knowledge RII score with condom use and age at first sexual encounter (p>0.05).

Conclusion and Recommendations: Policy makers need to consider expansion of policies on HIV/AIDS awareness to include strategies beyond ensuring knowledge of disease.

Keywords: HIV related risk behavior; HIV knowledge; Risk perception; Young adults

Introduction

HIV currently remains a leading cause of adult morbidity and mortality in Namibia, which continues to have one of the highest HIV prevalence rates in the world. Namibia is experiencing one of the largest HIV epidemics in Africa with a reported national prevalence of 15.3% in the adult population of 15-49 years [1]. AIDS has been the leading cause of death, since 1996, and contributed to a drop in life expectancy from 65 to 61 years, between 1990 and 2008 [2]. Namibia has been very successful in ensuring universal treatment access for people living with AIDS and HIV and great success has been made in the fight against HIV and AIDS.

The Namibia Demographic and Health Survey (NDHS) from 2013 estimated the national HIV prevalence rate among adults (15-49 years) to be 14.0%, and varying depending on sex, age geography, and socio-economic status. HIV prevalence is higher among women compared to men (16.9% compared to 10.9% according to the NDHS, 2013 [3]. In addition, across both sexes, HIV prevalence is higher among adults with lower levels of education and wealth. Conversely, HIV prevalence is slightly lower in urban areas (13.3%) than it is in rural areas (15.0%), [3], where approximately 70% of the population in Namibia resides [4].

Namibia is classified as a high, generalized and mature HIV prevalence country, with HIV assumed to be primarily transmitted through heterosexual and mother-to-child transmission [3]. According to the National Strategic Framework (NSF) mid-term review (2013), key drivers of the epidemic in Namibia include risky sexual partnerships, mother-to-child transmission (MTCT) and behavioral norms and practices that increase the risk of HIV transmission. Multiple and concurrent sexual partners; low and inconsistent use of male and female condoms; low levels of male circumcision in most areas; MTCT, mobility and labor migration; and the limited risk reduction practices

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among sex workers (SW) and men having sex with men (MSM) all contribute to new HIV infections each year [5].

Schwitters et al. investigated HIV and alcohol knowledge, self-perceived risk for HIV, and risky sexual behavior among young HIV-negative men identified as harmful or hazardous drinkers in Katutura, Namibia [6]. In this study, sex with casual partners was high and inconsistent condom use and alcohol use before sex was frequently reported.

The Ministry of Health in Uganda conducted a sero-behavioural survey in 2006. In this Ministry of Health survey, fourteen percent of both men and women aged 15-24 reported they had had sex before age 15, and 63% of women and 47% of young men had sex before the age of 18 [7]. Even if young people 15-19 were the most likely age group to have used a condom at last sex (27% of women and 47% of men), this percentage is still low. Their increased vulnerability to HIV infection is still compounded by the fact that most sexual encounters are without the benefit of consistent and correct condom use [7]. Furthermore, among women who had sex in the last 12 months, 7.6% (15-19) and 3.8% (20-24) years had 2 or more sexual partners [7].

Prata et al. highlight the relationship between young people's assessments of their HIV risk with assessments based on current and past sexual behavior, where more male than female who considered themselves to have no risk or a small risk of contracting HIV were at moderate or high risk in relation to unprotected sex [8]. Correct assessment was positively associated with condom use. Other studies have also suggested that the perception of actual threat of personal vulnerability to contracting HIV leads to adopting protective behaviors.

Human Immunodeficiency Virus (HIV) is still largely considered a medical and public health problem. Many sub-Saharan countries bear a large burden of HIV, with the youth being disproportionately affected, and Namibia is no exception. Ntumba et al. reported that out of 14100 new HIV infections per annum, 44% are amongst the youth between 14 and 24 years alone and 77% in females in north-east Namibia [9]. Different interventions have been implemented to fight against HIV in Namibia. However, the transmission is not decreasing as rapidly as desired, especially when considering a large amount of money and other efforts spent on its prevention [10].

According to the National Strategic Framework (NSF) mid-term review of 2013, key drivers of the epidemic in Namibia include risky sexual partnerships, mother-to-child transmission (MTCT) and behavioural norms and practices that increase the risk of HIV transmission. These key drivers are major public health problems as they contribute to the new cases of HIV infection each year. Multiple and concurrent sexual partners, low and inconsistent use of male and female condoms, low levels of male circumcision in most areas, mobility and labour migration, and the limited risk reduction practices among sex workers (SW) and men having sex with men (MSM) all contribute to new HIV infections each year [5,6] demonstrated that young HIV negative men in Katutura had good knowledge of HIV disease but still had history of risk behaviour. Could this mean there is need to further strengthen HIV/AIDS education awareness on risk perception?

Materials and Methods

For this study, the study population was males and females between 18 to 35 years attending out-patients' department at a referral hospital in Namibia. Ethical approval was obtained from the Ministry of Health and Social Services, Namibia.

We employed a cross-sectional study on a calculated sample size of 385 respondents.

Data Collection Instrument

Individual Questionnaires focusing HIV-related risk behaviour and HIV disease knowledge was developed. The questionnaire was administered to eligible participants after consent procedure has been done. The domains for the individual questionnaires included demographic characteristics, reproductive history (women only), marriage and sexual activity, HIV-related risk behaviors, HIV disease knowledge and HIV serostatus knowledge.

Statistical analysis

Participant's responses were captured on paper questionnaire, transferred onto Open Data Kit and electronically processed using STATA. Data cleaning and analysis was performed in STATA statistical software. Relative importance indices (RII) value were calculated to assess the level of knowledge of HIV and level of involvement in risky behavior based on responses on an ordinal scale using Equation (1).

$RII = \sum Q_i / NS$ (1), where P_i is the respondent's rating on the ordinal scale for question i of the indicator, N is the number of questions asked per indicator, S is the highest possible score on the ordinal scale. Means, median or frequencies were used in reporting results where appropriate.

The relative importance index (RII) was used to further describe the overall score for each of; knowledge on HIV and risk perception, alcohol and drug use behavior, condom use behavior, health status for each study participant and summarized for all participants in below tables. An RII close to 100 was strong favorable outcome compared to an outcome close to 0 which was poor. The chi-square test or student's t-test was used to determine association between individual study variable and the knowledge about HIV and risk perception levels. During bivariate analysis step several levels of categorical variables were combined to form new categories, RIIs and other continuous variables were categorized by means of the median value cut-off. Multiple regression analysis was used to determine factors associated with knowledge level RII score while adjusting for other study variables. Stepwise approach was used to determine independent variables necessary for inclusion in the final model. Only variables with ($p < 0.25$) in bivariate analysis were included for analysis in multiple regression. Statistical conclusions were reached at 5% level of significance. All statistical analysis was performed using STATA statistical package.

Results

A total of 385 subjects were recruited in the study between the period 01 and 28 February 2018. Detailed information about the demographic characteristics of the study participants are available in Table 1. Of the participants; 56% were females, the average age (SD) was 26.4 years (5.3), 9% were educated up to primary school only, 21% were unemployed while 38% were either students or intern, 56% reported residence in Windhoek urban area while 38% and 6% resided in Windhoek rural or other classification, 51% were of the Oshiwambo ethnicity while 49% were from other ethnical groupings, 52% were single while 26% and 18% were married and cohabiting respectively.

A total of 88% among the participants reported to ever had a sexual encounter. Mean (SD) age at first sexual encounter was 17.7 years (4.8) among those reporting to be sexual active. The mean age (SD) at first marriage was 22.1 years (5.8). Median number (IQR) of; sexual partners ever had in life was 3 (2-6), individuals had had sexual encounters last 12 months was 1 (1-3), of individuals had sexual encounters since getting

married or starting cohabitation was 1 (0-1). 71% reported to practice heterosexual while 21% reported to be swing and 8% indicating that they have homo- or bisexual preferences, 14% and 10% were reporting to have paid or received payment for sex ever before and in the last 6 months respectively. Detailed information about the sexual behavior of the study participants are available in Table 2.

Only 7% of the study participants confirmed to ever have an STI before. 43% had some experience of pregnancy before and the mean (SD) age to first pregnancy was 23.4 years (3.3). 35% of the male participants were circumcised. Most of the study participants indicated that they have (39%) or their sexual partners have (41%) never shared their HIV status with their partners, while 28 % have never had HIV counselling or testing in their lives. Lower frequencies of participants reported to have (17%) or their sexual partners have (14%) always shared their HIV status with their partners, while 13 % always have had HIV counselling or testing in their lives. The rest of the participants were reporting between rarely, sometimes or often regards to HIV status disclosure to their partners of efforts to obtain HIV counselling and testing services. Detailed information about the health status of the study participants are available in Table 3 and Figure 1.

28% reported to have ever always used the condom, while 28% and

Variable	Value
Gender, n (%)	
Male	170 (44)
Female	215 (56)
Age in years, mean (SD)	26.4 (5.3)
Highest level of education, n (%)	
Primary	35 (9)
Secondary	173 (45)
Tertiary	169 (44)
Don't know	8 (2)
Source of financial income, n (%)	
Student unemployed	119 (30)
Intern	31 (8)
Professional	84 (22)
Self employed	70 (18)
Unemployed	81 (21)
Location of residence, n (%)	
Windhoek urban	215 (56)
Windhoek rural	145 (38)
Other	25 (6)
Ethnicity, n (%)	
Colored	24 (6)
Damara	28 (7)
Himba	6 (2)
Kavango	27 (7)
Nama	11 (3)
Ovambo	198 (51)
Herero	54 (14)
Silozi	24 (6)
Marital status, n (%)	
Cohabiting	71 (18)
Divorced	9 (2)
Married	99 (26)
Separated	5 (1)
Single	199 (52)
Widowed	2 (1)
Age when you first got married, Mean (SD)	22.1 (5.8)

Table 1: Demographics.

Variable	Value
Have you ever had sexual encounter?, n (%)	
Yes	340 (88)
Age in years at first sexual encounter, mean (SD)	17.7 (4.8)
Number of sexual partners ever had in life, median (IQR)	3 (2-6)
Number of individuals had had sexual encounters last 12 months, median (IQR)	1 (1-3)
Number of individuals had sexual encounters since getting married or starting cohabitation, median (IQR)	1 (0-1)
Sexual preference, n (%)	
Bisexual	12 (3)
Heterosexual	275 (71)
Homosexual	19 (5)
Swing	79 (21)
Have you ever paid or received payment for sex, n (%)	
Yes	46 (14)
Have you ever paid or received payment for sex last month, n (%)	
Yes	35 (10)

Table 2: Sexual behavior.

Variable	Value
Ever had a sexually transmitted infection, n (%)	
Yes	27 (7)
Ever been pregnant, n (%)	
Yes	92 (43)
Age in years at first pregnancy, mean (SD)	23.4 (3.3)
Are you circumcised?, n (%)	
Yes	59 (35)

Table 3: Health status.

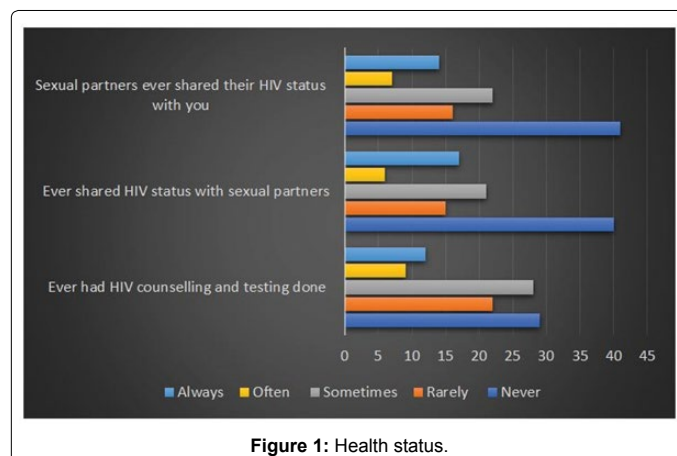


Figure 1: Health status.

24% reported to have always used the condom and received or bought a condom in the last 12 months respectively. Only 58% reported to have always used the condom in the proper way. Inversely, 29% reported to have never used the condom, while 27% and 29% reported to have never used the condom and received or bought a condom in the last 12 months respectively. Only 4% reported to have always used the condom

in the proper way. The rest of the participants were reporting between rarely, sometimes or often regards to behavior on condom use. Detailed information about condom use characteristics of the study participants are available in Figure 2.

56% of the study participants reported to never ever consumed alcohol or use of drugs. 86% of the study participants reported to have never either paid for sex under the influence or had sex in return for getting drugs, while 42 % confirmed to never either had unprotected or indulging in sex after the use of drugs. On the other side, 15% of the study participants reported to be always consuming alcohol or using of drugs. 4% and 3% of the study participants reported to always either paid for sex under the influence and having sex in return for getting drugs respectively, while 29% and 7% confirmed to always having unprotected and indulging in sex after the use of drugs respectively. The rest of the participants were reporting between rarely, sometimes or often regards to alcohol and drug use behavior. Detailed information about alcohol and drug use patterns of the study participants are available in Figure 3.

6% of the study participants self-reported to be at low risk of contracting HIV. 47% and 43% always believe that male circumcision and HIV medicines can reduce HIV transmission respectively. 54% and 48% always believe that medicines can prolong life or reduce MTCT respectively. 55% of the participants always believe that even healthy-looking participants can have HIV/AIDS. 47% and 49% always believe that chances of HIV infection are reduced by always abstaining from sex or having one sexual partner respectively. 48% always believe that sex is the main root of HIV transmission and none of the study participants have always been taught about sex education. Inversely: 35% of the study participants concurred to always having risk of contracting HIV. None and 7% only never believed that male circumcision and

HIV medicines can reduce HIV transmission respectively. 2% and 3% only never believed that medicines can prolong life or reduce MTCT respectively. Only 3% of the participants never believe that even healthy-looking participants can have HIV/AIDS. While only 2% never believe that chances of HIV infection are reduced by always abstaining from sex or having one sexual partner. Only 3% never believe that sex is the main root of HIV transmission and none of the study participants have never been taught about sex education. The rest of the participants were reporting between rarely, sometimes or often regards to knowledge of HIV and risk perception. Detailed information about knowledge of HIV and risk perception patterns of the study participants are available in Figure 4.

For all the study participants, the median (IQR) score was; 40 (20-60) for health status, 66.7 (47.6-85.7) for condom use, 76 (68-88) for alcohol and drug abuse, and lastly 80 (72-88) for knowledge about HIV and risk perception Table 4.

Bivariate analysis

There was a significant association between location of participant and knowledge level ($p=0.001$), 59% of study participants in Windhoek urban had knowledge and risk RII above median score compared to 41% and 4% in Windhoek rural and other location respectively. There was a significant association between marital status and knowledge level ($p=0.002$), 43% of study participants who are single had knowledge and risk RII above median score compared to 58% in other levels of marital statuses combined. There was no significant association between having knowledge and risk RII above median score with gender ($p=0.288$), age ($p=0.173$), education level ($p=0.231$), employment ($p=0.203$) or ethnicity in bivariate analysis. Detailed information on association between demographic characteristics and knowledge levels are available in Table 5.

There was a significant association between age of first sexual encounter and knowledge level ($p<0.001$). Participants with knowledge RII score above median were older (18.5 years) than those with knowledge RII score below median (16.7 years). There was no significant association with knowledge RII with; ever had sexual

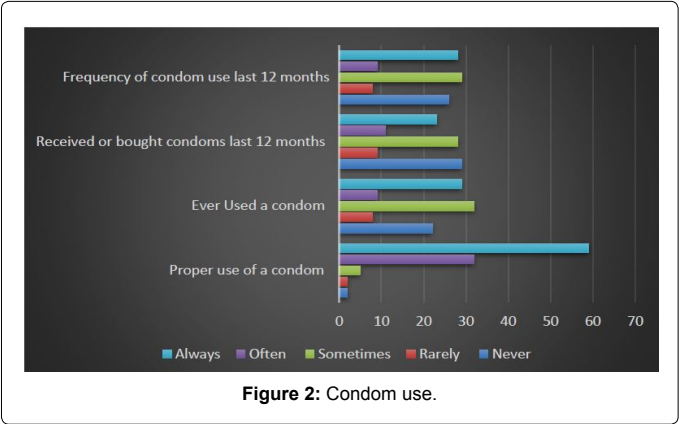


Figure 2: Condom use.

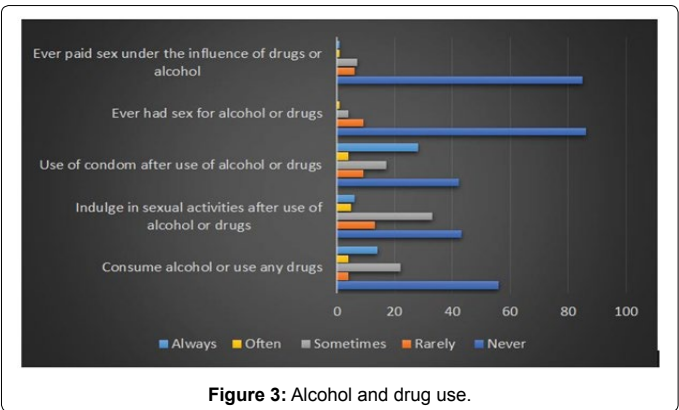


Figure 3: Alcohol and drug use.

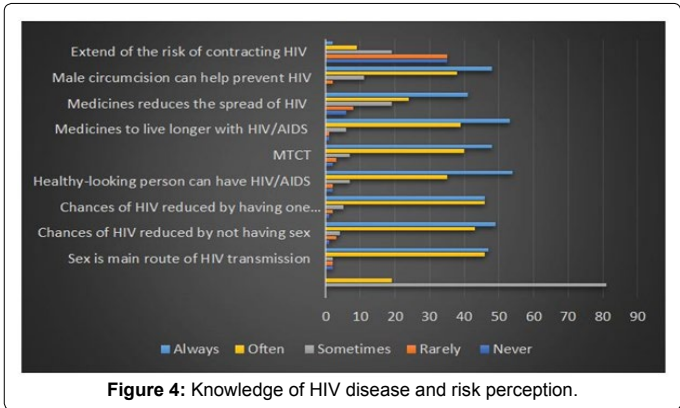


Figure 4: Knowledge of HIV disease and risk perception.

Variable	Value
Health status, median (IQR)	40.0 (20.0-60.0)
Condom use, median (IQR)	66.7 (47.6-85.7)
Drug use, median (IQR)	76.0 (68.0-88.0)
HIV risk and perception, median (IQR)	80.0 (72.0-88.0)

Table 4: Summary of the Relative Importance Indices (RII).

encounter ($p=0.383$), number of sexual partners ever had in life ($p=0.425$), number of individuals had had sexual encounters last 12 months ($p=0.536$), number of individuals had sexual encounters since getting married or starting cohabitation ($p=0.329$), sexual preference ($p=0.297$), ever paid or received payment for sex ($p=0.454$), ever paid or received payment for sex last month (0.375). Detailed information on association between sexual behaviour characteristics and knowledge levels are available in Table 6.

There was a significant association between health status RII score and knowledge RII score ($p<0.001$). 46% of participants with health status RII score above median had knowledge RII score above median compared to 56% with health status RII score below median who had knowledge RII score above median. There was a significant association between drug use RII score and knowledge RII score ($p<0.048$). 52% of participants with drug use RII score above median had knowledge RII score above median compared to 48% with drug use RII score below median who had knowledge RII score above median. There was no significant association with knowledge RII and condom use RII score during bivariate analysis ($p=0.286$). Detailed information on association between HIV related risk behavior and knowledge levels are available in Table 7.

There was a significant association between location and Knowledge

	Knowledge level RII score		
Variable	≥ 80	<80	p-value
Gender, n (%)			
Female	111 (52)	104 (48)	0.288
Male	82 (48)	88 (52)	-
Age in years, mean (SD)	26.2 (5.2)	26.7 (5.3)	0.173
Education level, n (%)			
Other	5 (53)	3 (38)	0.231
Primary	20 (57)	15 (42)	-
Secondary	93 (54)	80 (46)	-
Tertiary	75 (44)	94 (55)	-
Employment, n (%)			
Student	73 (49)	77 (51)	0.203
Unemployed	35 (43)	46 (57)	-
Others	85 (55)	69 (45)	-
Location, n (%)			
Other	8 (4)	17 (68)	0.001
Windhoek rural	59 (41)	86 (41)	-
Windhoek urban	126 (59)	89 (411)	-
Ethnicity, n (%)			
Oshiwambo	106 (54)	92 (460)	0.101
Others	87 (47)	100 (53)	-
Marital status, n (%)			
Single	86 (43)	115 (57)	0.002
Others	107 (58)	77 (42)	-

Table 5: Bivariate analysis to determine association between knowledge and risk perception levels with demographic characteristics.

Variable	Knowledge level RII score		p-value
	≥ 80	<80	
Ever had sexual encounter, n (%)			
No	24 (53)	21 (47)	0.383
Yes	169 (50)	171 (50)	-
Age in years at first sexual encounter, mean (SD)	18.5 (4.3)	16.7 (5.2)	<0.001
Number of sexual partners ever had in life, n (%)			
One	43 (51)	41 (49)	0.425
≥ One	126 (49)	130 (51)	-
Number of individuals had had sexual encounters last 12 months, n (%)			
One	100 (50)	101 (50)	0.536
≥ One	69 (50)	70 (50)	-
Number of individuals had sexual encounters since getting married or starting cohabitation, n (%)			
One	126 (49)	132 (51)	0.329
≥ One	43 (52)	39 (48)	-
Sexual preference, n (%)			
Heterosexual	135 (49)	140 (51)	0.297
Others	58 (53)	52 (47)	-
Ever paid or received payment for sex, n (%)			
No	147 (50)	147 (50)	0.454
Yes	22 (48)	24 (52)	-
Ever paid or received payment for sex last month, n (%)			
No	153 (50)	152 (50)	0.375
Yes	16 (46)	19 (54)	-

Table 6: Bivariate analysis to determine association between Knowledge levels with HIV related risk behaviors and sexual behavior.

	Knowledge level RII score		
Variable	≥ 80	<80	p-value
Health status RII score, n (%)			
≥ 40	106 (46)	126 (54)	0.021
<40	87 (56)	66 (43)	-
Condom use RII score, n (%)			
≥ 66.7	122 (51)	115 (47)	0.286
<66.7	71 (48)	77 (52)	-
Drug use RII score, n (%)			
≥ 76	53 (52)	48 (48)	0.048
<76	26 (38)	42 (61)	-

Table 7: Bivariate analysis to determine association between Knowledge levels with other HIV related risk behaviors.

RII score while adjusting for other study variables, the odds of having Knowledge RII score below median was 15% less in participants drawn from Windhoek urban compared to those drawn from other areas ($OR=0.15$ $p=0.022$), while there were no significant differences in odds between participants drawn from Windhoek rural compared to those

drawn from other areas ($OR=0.31$, $p=0.169$). There was a significant association between marital status and Knowledge RII score while adjusting for other study variables, the odds of having Knowledge RII score below median was 36% less in participants who are not single compared to those single ($OR=0.36$, $p=0.012$). There was boundary significant association between drug use RII score and Knowledge RII score while adjusting for other study variables, the odds of having Knowledge RII score below median was 1.95 times more in participants with drug use RII score below median ($OR=1.95$, $p=0.067$). There was boundary significant association between age and Knowledge RII score while adjusting for other study variables, for a year increase in age the odds of having Knowledge RII score below median increases by 1.09 ($OR=1.09$, $p=0.076$). There was no association between Knowledge RII score with condom use, employment status and age at first sexual encounter ($p>0.05$), although they were important variables in the final model. Detailed information on association between factors associated with knowledge levels are available in Table 8.

Discussion

The current study sought to determine the prevalence of HIV-related risk behavior among young adults (18-35 years) in Namibia. This age group is considered to be most sexually active and therefore at risk for HIV through sexual risk behaviors. For example, the median number of sexual partners was 3 (IQR 2-6) (Table 1), 29% had never used a condom and only 28% reported to always use a condom (Figure 2). Moreover, 4% and 3% of the study participants reported to always either paid for sex under the influence and having sex in return for getting drugs, while 29 % and 7% confirmed to always having unprotected and indulging in sex after the use of drugs respectively (Figure 3). The NSF mid-term review (2013) highlighted that risky sexual partners and low and inconsistent use of male and female condoms were some of the key drivers of the epidemic in Namibia [5].

Variable	Odd of Knowledge RII score <80	95% confidence interval	p-value
Condom use RII score, n (%)			
≥ 66.7	-	-	
<66.7	1.65	0.71-3.86	0.243
Drug use RII score, n (%)			
≥ 76	-	-	
<76	1.95	0.95-3.97	0.067
Age in years, mean (SD)	1.09	0.99-1.20	0.076
Employment, n (%)			
Student	-	-	
Unemployed	0.56	0.20-1.60	0.283
Others	0.63	0.21-1.86	0.402
Location, n (%)			
Other	-	-	
Windhoek urban	0.15	0.03-0.76	0.022
Windhoek rural	0.31	0.06-1.64	0.169
Marital status, n (%)			
Single	-	-	
Others	0.36	0.17-0.80	0.012
Age in years at first sexual encounter	0.95	0.89-1.02	0.185

Table 8: Multivariate logistic regression analysis to determine factors associated with knowledge about HIV and risk perception levels.

The low and inconsistent use of condoms among young adults is comparable to results in other studies from Sub-Saharan Africa (SSA). In their paper, Doyle et al. analyzed national survey data from 24 countries in SSA and found that a high proportion of young people were sexually active and at risk of contracting HIV, other STIs or of unplanned pregnancy because of lack of condom and other contraceptive use, and through having multiple sexual partners [11]. In another study done in Namibia, the authors reported that 50.1% of students had multiple sexual partners 12 months prior to the study [12].

HIV counselling and testing (HCT) is seen as a key strategy for reducing the spread of HIV infection. HCT has become increasingly available in Namibia in recent years. Moreover, The MoHSS NSF report highlights some methods of HCT delivery being considered for implementation, ranging from facility based HCT at all levels, provider initiated counselling and testing (PICT), mobile outreach, standalone centres, workplace HCT integrated into Wellness Programmes, door-to-door HCT and self-test kits [5]. However, in the current study only 13% of the young adults have had HIV counselling or testing in their lives. Most of the study participants indicated that they have (39%) or their sexual partners have (41%) never shared their HIV status with their partners, while 28% have never had HIV counselling or testing in their lives. Despite efforts from the MoHSS to scale up HCT programs and services in Namibia, there is a clear need to strengthen the current interventions.

The young adults are among the most vulnerable groups to HIV/AIDS and adequate knowledge about the disease is key to their protection [13]. The majority of the study participants demonstrated fair knowledge about the disease. As such, 48% believe that sex is the main root of HIV transmission, 54% and 48% reported that medicines could prolong life or reduce MTCT respectively. Approximately 55% of the participants also believe that even healthy-looking participants can have HIV/AIDS. Additionally, 47% and 49% participants believe that chances of HIV infection are reduced by always abstaining from sex or having one sexual partner respectively. Only 6% of the study participants self-reported to be at low risk of contracting HIV. Our findings are consistent with published findings. Costa et al. found in their study that the majority of the participants had good knowledge of HIV transmission and prevention (e.g most women knew condoms prevent HIV) [14]. In another study, findings indicated that a majority of the respondents were aware of HIV/AIDS. However, there was a need for improvement as a considerable percentage incorrectly believed that persons living with HIV can be recognized by appearance and that there is a cure for AIDS. Those who are unaware that an HIV-infected person may be asymptomatic are more at risk because they are unaware that they could be infected by an apparently healthy partner [15].

The current study reveals that knowledge about HIV/AIDS is not enough to impact practice behaviors associated with contracting HIV/AIDS among Namibian young adults. While the study does not negate the importance of knowledge, it simply confirms that knowledge alone does not have a significant relationship with HIV/AIDS related risk-behaviors. Therefore, the MoHSS must expand their ideas about HIV/AIDS awareness to include components beyond increasing knowledge. One recommendation is to include skill development components in their training programs. Those practicing HIV risk-related behavior should have skills development programs that address condom negotiation, safe-sex practices and HIV-testing. Additionally, health promotion programs must be infused into practice models and prevention/intervention strategies which must target all young adults [14].

Conclusion and Recommendations

Despite the relatively good knowledge about sexual transmission of HIV, majority of young adults still engage in HIV risk behavior such as, having multiple sexual partners and inconsistent use of condoms. In addition, some respondents reported to not take advantage of the widely available HIV testing services being provided by MoHSS. Therefore, knowledge about HIV/AIDS is not enough to influence practice behaviors associated with contracting HIV/ AIDS among Namibian young adults. It is therefore necessary to re-enforce current strategies to ensure young adults have a good understanding about HIV risk behavior and the importance of utilizing HIV prevention services, such as correct and consistent condom use.

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