Short Communication

Disclosure of Sexual Orientation and its Predictors among HIV-Positive Men Who Have Sex with Men in a Contemporary African Setting

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Abstract

Background: Sexual orientation disclosure has been reported to promote good peer support, improve psychological health, as well as access to STIs and HIV prevention services. Hence, this study sought to assess the level of disclosure sexual orientation and its predictors among HIV-positive men who have sex with men (MSM) in Plateau state Nigeria. **Methods:** This was a cross-sectional study design conducted between October 2018 and December 2019 among 114 HIV-infected MSM through respondent driven sampling technique. Epi Info version 7 was used for the data analysis with adjusted odds ratio and 95% confidence interval (CI) used as point and interval estimates on the logistic regression model and $P < 0.05$ considered statistically significant. **Results:** The mean age of the respondents was 26.0 ± 5.4 years with disclosure of sexual orientation to nonpartner being reported by 45 (39.5%). Positive family history of same sex practice was found to significantly predict self disclosure of sexual orientation (adjusted odds ratio: 3.30; 95% CI: 1.2356–8.8038; $P = 0.017$). **Conclusions:** This study has revealed a low level of disclosure of sexual orientation among HIV-positive MSM in Plateau state with a positive family history of same sex involvement as its predictor.

Keywords: Disclosure, men who have sex with men, Nigeria, predictor, sexual orientation

Introduction

Sexual orientation disclosure refers to ever disclosing one's sexual orientation to any person other than a sexual partner.[1] Many men who have sex with men (MSM) in resource-limited settings are in the closet due to a complex interaction of socio-cultural, political, and communal factors.[1,2] Sexual orientation disclosure has been reported to promote good peer support, improve psychological health as well as access to Sexually Transmitted Infections (STIs) and HIV prevention services.[3,4] However, most of the available studies on disclosure of MSM sexual orientation are from the developed countries with very little being done in Nigeria as well as the sub-Saharan Africa in view of the sociocultural, political, and legislative stances.[1,5] It was against this backdrop that this study sought to assess the level of disclosure sexual orientation and its predictors among HIV-positive MSM affiliated to support in Plateau state Nigeria.

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Materials and Methods

Study area

This study was conducted among the members of the MSM network in Plateau state North central Nigeria, The MSM network in the state viable and functional with an established non facility affiliated HIV support group system. The MSM network had an estimated membership of 150 HIV-positive persons linked to HIV care in health facilities within and outside the state. The HIV-infected MSM constitutes the

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membership of the HIV support group within the MSM network.

Study population

The study population comprised of all HIV-infected MSM linked to HIV care in any health facility and affiliated to the existing HIV support group within the network of MSM.

Study design

This study utilized a cross-sectional design conducted between October 2018 and December 2019.

Sample size estimation

The sample size for this study was determined using the appropriate sample size determination formula for a cross-sectional study.[6] Where n is the minimum sample size, Z is the standard normal deviate at 95% confidence interval (CI) (1.96), q is the complementary probability (1 − p), d is the precision of the study set at 0.05 and P is the level of disclosure of sexual orientation among MSM from a previous study conducted in Malawi which was 9.3% (0.093).[7] This gave a minimum sample size of 130. In view of the fact that the estimated population of HIV-infected MSM from support group documentation was <10,000. Hence, correction for finite population was applied using the appropriate formula[6] giving a minimum sample size of 70 HIV-infected MSM linked to HIV care and affiliated to the HIV support group within the MSM network.

Criteria for inclusion in the study

All HIV-infected MSM affiliated to the HIV support group within the MSM network in the state who were 18 years and above, linked to HIV care within the last 12 months preceding the study as documented in the support group register were eligible to participate in the study.

Sampling technique

Respondent driven sampling technique was used to recruit consenting eligible MSM into the study. Eligible HIV-infected MSM were recruited into the study through the identified MSM network and HIV support group coordinators who were well-regarded by their peers and influential within their networks. This was done in the course of their contacts with the HIV-infected members during the intra-MSM network support group meetings and social visits. A preliminary list of eligible HIV-infected MSM who had met inclusion criteria was compiled by these coordinators using the available intra-MSM network HIV support group documentation. This list formed the frame from which the respondents were sampled and the process continued until a saturation point was reached where all consenting eligible respondents had been sampled and no respondent was gotten for a 1-month period.

Data collection instrument and procedure

A semi-structured interviewer administered questionnaire adapted from a previous similar study was used in this study.[8] Three identified MSM network coordinators were trained on the content and administration of the data collection tool for a day by the researcher in their designated location of choice following which they carried the data collection in the course of their contacts with the members during the regular support group meetings and social visits. The data collection instrument was translated to Hausa language and back translated to the English language. The relevant component part of the data collection instruments was pretested among HIV-infected persons accessing HIV care in one of the comprehensive HIV treatment sites in the state. Before the administration of the questions, written and verbal informed consent was obtained from all the respondents with the assurance of confidentiality and anonymity of their responses.

Grading of responses

The outcome measure in the study was the disclosure of sexual orientation to nonpartner. It was adjudged disclosed if sexual orientation had been ever disclosed to any person other than a sexual partner.[1] In light of sexual orientation disclosure, the person sexual orientation disclosure was first made to, was taken as the person primarily disclosed to.

Data analysis

Data analysis was carried out using Epi Info statistical software version 7 CDC 1600 (Clifton Rd. Atlanta, GA 30333 USA). Quantitative variables such as age of the respondent and age at same sex debut were presented with mean and standard deviation. Other explanatory variables such as marital status, sexual orientation, and family history of same sex orientation were presented in frequencies and percentages on the frequency tables. Disclosure of sexual orientation which was the primary outcome variable expressed as disclosed or not disclosed was presented in frequency and percentage. A two-step model approach to logistic regression was used in determining the predictors of disclosure of sexual orientation. Binary logistic regression was applied to each of the explanatory variables, all variables with a probability value of less than 0.05 were set aside and fed into the multiple logistic regression model. Adjusted odds ratio and 95% CI were used as the measures of effect, while a $P < 0.05$ was considered statistically significant.

Ethical consideration

Ethical approval was sought and obtained from the Institutional Review Board of the Jos University Teaching Hospital before the commencement of the study (JUTH/DCS/ADM/127/XXVIII/1180).

Results

One hundred and fourteen HIV-infected MSM linked to HIV care participated in this study. Majority (81.6%) of the respondents were aged 30 years and less with a mean age of 26.0 ± 5.4 years. Seventy-three (64.0%) of the respondents were strictly homosexuals, while 41 (36.0%) were bisexuals. Furthermore, the average age at same sex sexual debut was 19.1 ± 5.1 years with 46 (40.4%) debuting same sex before the

age of 18 years. Slightly above a third (35.1%) of the MSM had a family history of same sexual orientation, while 52 (44.7%) of them engaged in transactional sex [Table 1].

Disclosure of sexual orientation to nonpartner was reported by 45 (39.5%) and among those who had disclosed their sexual orientation, 26 (57.8%) did disclose primarily to their brothers while 7 (15.6%) disclosed to their mothers and sisters, respectively, and none had disclosed to their health-care provider. Furthermore, positive family history of same sex practice was found to significantly predict self disclosure of sexual orientation in the study after adjusting for the employment status of the respondents in the logistic regression model (adjusted odds ratio: 3.30; 95% CI: 1.2356–8.8038; $P = 0.017$) [Table 2].

Table 1: Sociodemographic characteristics and disclosure of sexual orientation of the respondents

Characteristics	Frequency ($n=114$), n (%)
Age group (years)	
≤30	93 (81.6)
31 and above	21 (18.4)
Mean age (years) (mean±SD)	26.0±5.4
Marital status	
Single	105 (92.1)
Married	7 (6.1)
Separated	2 (1.8)
Sexual orientation	
Strictly homosexual	73 (64.0)
Bisexual	41 (36.0)
Age at same sex debut (years)	
<17	46 (40.4)
≥18	68 (59.6)
Mean age at same sex debut (years) (mean±SD)	19.1±5.1
Primary family type	
Monogamy	41 (36.0)
Polygamy	73 (64.0)
Family history of same sex orientation	
Absent	74 (64.9)
Present	40 (35.1)
Highest level of education attained	
Primary	8 (7.0)
Secondary	62 (54.4)
Tertiary	44 (38.6)
Employment status	
Employed	42 (36.8)
Not employed	72 (63.2)
Type of MSM	
Penetrative partner	88 (77.2)
Receptive partner	18 (15.8)
Both	8 (7.0)
Engagement in transactional sex	
Engaged	51 (44.7)
Not engaged	63 (55.3)
Duration of HIV diagnosis (years)	
≤5	88 (77.2)
6 and above	26 (22.8)
Sexual orientation disclosure status	
Disclosed	45 (39.5)
Not disclosed	69 (60.5)
Person primarily disclosed to (n=45)	
Brother	26 (57.8)
Father	1 (2.2)
Mother	7 (15.6)
Sister	7 (15.6)
Close friend	4 (8.9)
Health-care worker	0

SD: Standard deviation, HIV: Human immunodeficiency virus, MSM: Men who have sex with men

Discussion

In this study, slightly above a third of the respondents reported to have disclosed their sexual orientation which is in consonant with the finding of a study conducted in India.[9] However, varying levels of sexual orientation disclosure were reported by MSM in studies conducted in different climes where a much higher levels of disclosure were found.[10-12] Contrary to the level of disclosure from our study, findings from a multi-country study reported a lower pooled and individual country level disclosure rates.[3] Furthermore, other studies conducted in China, Malawi, Tanzania, and India also reported a lower level of sexual orientation disclosure.[4,7,13,14] The seemingly low level of disclosure of sexual orientation found in this study could be attributable to the fact same sex involvement is highly criminalized in Nigeria. Disclosure of MSM's sexual identity has always been associated with some form of dilemma in Nigeria and many countries alike because not coming out of the closet could be a means of avoid stigmatization further corroborating the sub-optimal level of disclosure reported in this study.[9,11] Importantly, this study was conducted among HIV-positive members of the MSM support group as against other studies conducted among the general MSM population regardless of their HIV status bring to light the need to be contextual in the generalization of the findings of this study.

Disclosure of sexual identity was reported more to the immediate family members which is at variance with findings of studies where health-care professional and nonimmediate family members accounted for higher proportion sexual orientation disclosure.[1,3,12] This further brings to light the fact Nigeria is a family oriented setting and if further explored could be used as a fulcrum for improving the level sexual orientation disclosure. Furthermore, it is also imperative to state that the system of HIV/AIDS treatment, care and support services currently in use in Nigeria may not be sexual orientation differentiated and MSM friendly making disclosure to health-care providers less likely. The implication of this to practice is that a review of HIV/AIDS treatment and care policy is imminent with a view of making it MSM and other key population friendly and sensitive.

Positive family history of same sex sexual practice was found to be the sole predicator of sexual orientation disclosure in this study. However, other study have reported varying of factors such as increasing level of education, receptive type of MSM, stigma, discrimination, HIV-positive status, bisexual concurrency, race, age, fear of HIV infection, and health care

Table 2: Multiple logistic regression of predictors of disclosure of sexual orientation among the respondents

Factors	COR (95%CI)	*P*	AOR (95% CI)	*P*
Age group (years)				
31 and above	0.72 (0.2670-9.9614)	0.5250	-	-
≤30	1	-	-	-
Marital status				
Single	1.73 (0.3214-9.3520)	0.522	-	-
Separated	0.01 (0.0000>1.0E12)	0.970	-	-
Married	1	-	-	-
Level of education				
Secondary	1.91 (0.1997-18.1637)	0.576	-	-
Tertiary	4.38 (0.4527-42.3942)	0.202	-	-
Primary	1	-	-	-
Sexual orientation				
Strictly homosexual	1.86 (0.8163-4.2209)	0.140	-	-
Bi-sexual	1	-	-	-
Current employment status*				
Employed	2.58 (1.0023-6.6151)	0.049	2.26 (0.8481-6.0312)	0.103
Unemployed	1	1	-	-
Age at sex sexual debut (years)				
18 and above	0.89 (0.4109-1.9197)	0.763	-	-
≤17	1	-	-	-
Duration of diagnosis of HIV (years)				
6 and above	1.59 (0.5985-4.2145)	0.353	-	-
≤5	1	-	-	-
Primary family type				
Monogamous	1.68 (0.7523-3.7563)	0.205	-	-
Polygamous	1	-	-	-
Type of MSM				
Penetrative	1.73 (0.5758-6.6151)	0.329	-	-
Receptive	0.51 (0.0096-2.6436)	0.418	-	-
Both	1	-	-	-
Family history of same sex practice**				
Present	6.46 (2.7662-15.0936)	<0.001	3.30 (1.2356-8.8038)	0.017
Absent	1	1	-	-
Engagement in transactional sex				
Yes	1.28 (0.5598-2.9165)	0.561	-	-
No	1	-	-	-

*Statistically significant before adjustment but not after adjustment, **Statistically significant after adjustment. COR: Crude odds ratio, AOR: Adjusted odds ratio, CI: Confidence interval, HIV: Human immunodeficiency virus, MSM: Men who have sex with men

providers' communication skills as being significantly predict disclosure of sexual orientation among the MSM.[1,10,12,13] The diversity of the identified factors influencing disclosure of sexual orientation further reiterates the importance of prioritizing the use of settings and context specific findings in developing interventions targeted at improving the sexual orientation disclosure among the MSM population.

Conclusions

This study has revealed a low level of disclosure of sexual orientation among HIV-positive MSM with positive family history of same sex involvement as its predictor.

Acknowledgments

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Conflicts of interest

There are no conflicts of interest.

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