

## Assessment of Stigma, Vulnerability to Violence and Coping Mechanisms among HIV Positive Men Who Have Sex with Men in Akwa-Ibom State, Nigeria

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**Purpose:** HIV-positive men who have sex with men (MSM) are significant contributors to HIV transmission globally. This study aimed to assess the level and type of stigma and violence among MSM attending Heartland Alliance LTD/GTE (HALG) one-stop-shop (OSS) and their coping mechanisms.

**Method:** Using a mixed method, this was a descriptive cross-sectional study of MSM receiving care in Heartland Alliance OSS in Akwa Ibom State. A total of 443 MSM were recruited across four OSS. Quantitative data were collected using a pretested structured questionnaire and an adopted stigma scale. Four focus group discussions (FGDs) comprised 8- 10 MSM purposively selected per section. A three-item guide was developed for stigma, violence, and coping mechanisms. IBM-SPSS version 27 was used for data analysis; stigma was scored using a Likert scale. Transcripts from FGDs were analyzed using content analysis and presented in themes.

**Results:** The study comprised 443 respondents. About 50% have disclosed their HIV status, 48% reported alcohol consumption, 31% reported substance use, and 95.9% said they used condoms consistently. Perceived stigma was seen in 60%, internal stigma in 41.5%, and 48.2% experienced high stigma. Predictors of stigma were the use of substance odds ratio (OR): 5.37(2.49-11.55) compared to non-use, being a civil servant OR:5.87(1.68-20.57) and being a professional OR:8.73 (2.36-32.33). The predictors of rape were being married OR:1.95(1.04-3.64) and substance use OR:2.03(1.18-3.63). Use of alcohol OR:2.25(1.22-4.19) and civil servant OR:3.33(1.10-10.12) were the independent predictors. A good number of the MSM use avoidant coping mechanisms for both stigma and violence; they try not to disclose their status and sexual orientation, and in a few cases, they have combated violence with violence.

**Conclusion:** There is a need to expand integrated services for MSM, including mental health assessment, psychological support, and counselling for those suffering from stigma and all forms of violence.

**Keywords:** HIV Stigma, Violence Vulnerability, Coping Mechanisms, MSM

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## Introduction

Men who have sex with men (MSM) constitute one of the five groups known as key populations due to their elevated risk of HIV infection.<sup>1</sup> Over half of the global new HIV infections occurred among key populations and their sexual partners, whilst the risk of HIV acquisition among MSM is 22 times higher than in other adult men.<sup>2</sup> Despite the recent reduction in HIV incidence globally, concentrated HIV epidemics have been reported among MSM in many countries.<sup>3</sup> Although they constitute just a small subset of the general population, MSM accounted for an estimated 17% of new HIV infections worldwide, including 57% of new HIV infections in Central Europe and North America, 30% in Asia and the Pacific, and 17% in Western and Central Africa.<sup>2</sup> In sub-Saharan Africa, MSM is an essential part of the HIV epidemic. Nigeria has a disproportionate burden of HIV infection.<sup>4</sup>

The stigmatization of same-sex practice facilitates the spread of HIV among MSM. It remains a significant impediment to health care services, including HIV prevention methods and treatment.<sup>3</sup> MSM, particularly those who have disclosed their sexual orientation, experience significant levels of sexual behavior stigma, which further potentiates risky sexual behaviors.<sup>5</sup>

Members of this population are disproportionately marginalized regarding health-related conditions within and outside healthcare facilities, especially in societies where stigma against MSM is rife.<sup>6,7</sup> Stigma, criminalization and discrimination against same-sex sexual orientation play critical roles in preventing access and utilizing available healthcare services among MSM.<sup>8</sup> Healthcare practices creates, enables and fosters an unfavorable climate, which makes initiating antiretroviral treatment (ART) complicated among the already hard-to-reach MSM population.<sup>9</sup>

Aside from the stigma, MSM tormented by the potential social and legal challenges are highly vulnerable to different forms of violence. Global surveys showed that MSM experience physical assaults, police brutality, verbal

harassment and abuse, and other non-physical persecution by family members, community members, and strangers alike.<sup>10-12</sup> Sexual behavior stigma reported among MSM in developed and developing countries is comprised of enacted (external) or internalized (self-stigma) types. It includes the fear of seeking or complete avoidance of health care, fear of non-protection by security agencies, and fear of being blackmailed or raped; moral and sexual abuses from partners along with physical violence from people in the street; as well as verbal harassment and stigma from family and friends.<sup>5, 13,14</sup>

Studies in Nigeria showed that members of the MSM community experience various forms of human rights violations and abuse because of their sexual orientation or identity. Some MSM reported fear of walking the streets of their community, being blackmailed, beaten, denied housing and jailed due to sexual orientation.<sup>15</sup> Others experienced aggression, alienation, verbal, physical, rape, and psychological abuse.<sup>16</sup> Health-related stigma includes denial of care or avoidance by healthcare workers, verbal harassment and passing of judgmental comments.<sup>3</sup> The passage of the Same-Sex Marriage Prohibition Law 2014 in Nigeria further worsens stigmatization, criminalization, and violence towards MSM. These hitherto dampen the progress made regarding HIV prevention, treatment, and care in recent years.<sup>17</sup>

In addition, restrictive policies, social exclusions and inequalities potentiate the risks of HIV acquisition and transmission among MSM to all sexual partners with cumulative economic and health implications.<sup>18</sup> Conversely, support systems, including peer support, spiritual support and support from existing relationships, have been identified as coping mechanisms for sexual and HIV-related stigma among MSM.<sup>19</sup> Strategies to mitigate stigma in health facilities settings include creating avenues for direct (in-person) or indirect (media-based pro-social contact) between health personnel and MSM.<sup>20</sup> Using an avoidant coping strategy has effectively conferred a

protective effect on risk behavior by reducing the opportunities for difficult sexual situations.<sup>21</sup> The need for mental healthcare and educational materials that enhance individuals' coping mechanisms with sexual stigma and provide psychological and social support have proven beneficial.<sup>22,23</sup>

Despite improvements in health care and support services, networks of key populations (KP) remain essential drivers of HIV transmission in Nigeria. There are over 11,748 MSM in Nigeria, and the national HIV prevalence for MSM is 22.9%.<sup>24</sup> The recent National AIDS Indicator Impact Survey (NAIIS) showed that Akwa Ibom state has the highest HIV prevalence in Nigeria with 5.5%.<sup>25</sup> The role of KP in the overall HIV epidemic makes it imperative to assess the level of sexual stigma, vulnerability to violence and coping mechanisms of MSM in Akwa Ibom state. There are very few studies in Nigeria that have addressed these concerns. Hence, more evidence is necessary to influence policy change or enhance better HIV programming for this population. This study seeks to assess the level of stigma and violence among MSM in Akwa Ibom State.

## **Methodology**

### ***Sampling and recruitment***

This research was carried out in Uyo, Ikot Ekpene, Oron, and Eket, within the Akwa-Ibom State, under the umbrella of Heartland Alliance LTD/GTE (HALG) Nigeria's One-Stop-Shops (OSS). As a service-oriented entity, HALG operates as a non-profit, unbiased, and non-denominational basis. It is dedicated to safeguarding and advancing the rights of the most at-risk populations, focusing on a holistic perspective that encompasses health, social justice, and economic equity. This study used a concurrent mixed method of cross-sectional quantitative and qualitative- Focus group discussions. Non-consenting MSM were excluded from the study. Additionally, any MSM who were too ill to participate actively were not included in the research, ensuring their health condition would not be compromised. Further-

more, the study maintained a strict age requirement, excluding MSM under 18, as they were considered minors and, therefore, not eligible to participate in the research.

### ***Quantitative Sample size determination***

A single proportion formula for sample size determination was used with a standard deviation of 1.96 and a 5% margin of error. A proportion of 50% was used to obtain a maximum sample size of 384. With a non-response rate of 10%, the adjusted sample size was rounded up to 430. This number was recruited across the four OSS.

### ***Sample technique***

The estimated sample size was proportionally allocated to each of the four clusters, thirty percent of the allocation being recruited consecutively at the OSS among MSM coming to the facility, and the remaining 70% were recruited in the hotspot areas consecutively along with the local government focal service providers as they provide services to the clients within the cluster.

### ***Questionnaire***

This study used a structured questionnaire designed to include an adapted measure (Zeng<sup>26</sup> Perceived and Internalized Stigma Scale) for assessing stigma among MSM.

The questionnaire has five sections, with section one comprising respondents' background information, followed by sexual history (number and types of partners, casual and transactional sex and use of condom). The third section focuses on the HIV stigma and discrimination (perceived and internalized stigma scale). The fourth and fifth sections comprise violence in all forms, including rape, sexually transmitted infections (STIs), and treatment-seeking behavior.

The instrument was piloted using 10% of the sample size in HALG OSS. After receiving content validity from specialists in the field, the data were collected, entered, and evaluated for dependability. Corrective action was taken as needed.

### *Measures*

The quantitative analysis of this survey encompasses various metrics related to instances of sexual assault or rape, spanning durations from one month to over a year, along with details regarding the perpetrators involved. Concurrently, similar evaluations were conducted for incidents of physical assault within the same timeframe. Additionally, stigma was assessed using a scale ranging from 1 to 4, where 1 denotes "strongly disagree," 2 signifies "disagree," 3 indicates "agree," and 4 represents "strongly agree." The total stigma score falls within the range of 14 to 56, with higher scores indicating greater stigma. The perceived stigma subscale ranges from 6 to 24, with a threshold of 15, while the internalized stigma subscale ranges from 8 to 32, with a cut-off point of 20. An overall score above 32 is considered a high level of stigma.

### *Data Collection*

From the MSM group were trained as Research Assistants for two days (April 14<sup>th</sup> and 15<sup>th</sup>, 2021). The training was intensive and addressed computer-aided personal Interviews, interviewing the respondents using the respective tools, and ethical issues. The trained research assistants administered the questionnaire to the respondents using Computer Aided Personal Interview (CAPI).

### *Data Analysis*

Data were cleaned, transferred into a spreadsheet, and analyzed using IBM-SPSS version 27. Frequencies and proportions represented categorical variables, while continuous variables were summarized using means and the relevant measures of variability. Chi-square analysis was employed to ascertain the relationship between stigma levels and vulnerability status, with a significance level set at 5%. Findings were illustrated through tables and charts, while odds ratios were derived from bivariate logistic regression models.

### *Qualitative Study Framework*

In each OSS location, 10% (10-12 MSM) of the allotted sample size for the quantitative survey were recruited purposively for the FGD

(those recruited for the questionnaire survey were excluded). One FGD was conducted per OSS. Each FGD session consisted of 8-10 homogenous cohorts of MSM. The FGD was conducted within the premises of the OSS in a round table-seating arrangement that lasted between 45 and 60 minutes. The language of communication was *pidgin* English. Trained health workers (including a moderator, note-taker, and timekeeper) were used to moderate the FGD sessions. A three-item guide was used to explore stigma or discrimination experienced as an MSM, the coping strategies with stigma and vulnerabilities to violence.

### *FGDs Analysis*

Transcripts from the FGDs were analyzed using content analysis and presented along the themes: 1. experienced and perceived stigma, 2. different ways of coping with stigma, and 3. vulnerability to violence.

### *Ethical consideration*

Ethical approval was obtained from the Ethical Review Committee of the University of Uyo Teaching Hospital. Written informed consent was obtained from the respondents. Participation in the study was strictly voluntary, and the respondents were free to discontinue at any research stage without any consequences. Confidentiality was strictly followed as the questionnaire was de-identified and data security assured. No intentional harm was done to the participants.

## **Results**

### *Quantitative Results*

Table 1 presents the sociodemographic information disclosure and treatment adherence of HIV-positive MSM attending HALG in Akwa Ibom state. The mean age of the respondents in the study was 28.0±5.6 years. Most respondents (57.6%) were in the age group of 25-34 years, with 27.5% being 24 or younger and 14.9% being 35 years or older. Most respondents were single (74.5%), 22.1% were married or cohabiting, and a small percentage were either divorced/separated (2.5%) or widowed (0.9%). Nearly half of the respondents had completed second-

**Table 1.** Sociodemographic characteristics, disclosure, and treatment adherence of MSM in the study

Variables	Parameter	Frequency (n=443)	Percentage
Age	24 and below	122	27.5
	25-34	255	57.6
	35 and above	66	14.9
Marital status	Single	330	74.5
	Married/cohabiting	98	22.1
	Divorced/separated	11	2.5
	Widowed	4	0.9
Level of education	No formal	10	2.3
	Primary completed	33	7.4
	Secondary completed	209	47.2
Occupation	Artisan	63	14.2
	Civil servant	49	11.1
	Professional	42	9.5
	Students	164	37
	Unemployed	102	23
	Others	23	5.2
Have disclosed HIV status	Yes	220	49.8
	No	223	50.2
Person disclosed HIV status to (n=220)	partner	78	35.5
	Friend	29	13.2
	Sibling	29	13.2
	Parent	16	7.3
	Others	2	0.9
Number of doses of ARVs missed in the last seven days	None	155	35
	Once	37	8.4
	More than once	251	56.6

ary education (47.2%), and 43.1% had tertiary education. A smaller proportion had completed primary education (7.4%) or had no formal education (2.3%). The largest occupational group was students (37%), followed by the unemployed (23%), artisans (14.2%), civil servants (11.1%), professionals (9.5%), and others (5.2%). The respondents were almost evenly split between those who had disclosed their HIV status (49.8%) and those who had not (50.2%). Among those who disclosed (n=220), the majority disclosed to their partner (35.5%), followed by friends and siblings (13.2% each), parents (7.3%), and others (0.9%). Regarding treatment adherence, 35% of respondents did not miss doses of antiretroviral (ARV) medication in the last seven days, 8.4% missed one dose, and a significant proportion (56.6%) missed more than one dose.

Table 2 presents a detailed overview of risk behaviors among MSM attending HALG in Akwa Ibom State, with a total sample size of 443 respondents. The median number of male partners reported is 3. The table shows that 31.4% of respondents used some form of substance, with the remaining 68.6% reporting no substance use. Among those who used substances (n=139), the most common was cigarettes (70.5%), followed by marijuana (24.5%), tramadol (17.3%), codeine (15.8%), cocaine (4.6%), and other injectables (3.6%). Regarding alcohol consumption, 47.9% of respondents reported taking alcohol, while 52.1% did not. Among those who consumed alcohol (n=212), the frequency varied, with 33.5% constantly consuming alcohol, 22.6% often, 32.1% sometimes, and 11.8% rarely.

**Table 2:** Risk behaviors among MSM attending HALG, Akwa Ibom

Variables	Parameter	Frequency (n=443)	Percentage
Use any substance	Yes	139	31.4
	No	304	68.6
Substance abuse (n=139)	Cigarette	98	70.5
	Marijuana	34	24.5
	Codeine	22	15.8
	Cocaine	6	4.6
	Tramadol	24	17.3
	Other injectables	5	3.6
Take alcohol	Yes	212	47.9
	No	231	52.1
Frequency of alcohol consumption (n=212)	Always	71	33.5
	Often	48	22.6
	Sometimes	68	32.1
	Rarely	25	11.8
	None	13	2.9
Number of male partners in the last three months	1	64	14.4
	2	136	30.7
	3	70	15.8
	4	34	7.7
	5	39	8.1
	Above 5	87	19.6
Have a female friend	Yes	226	51
	No	217	49
Frequency of sex with a man (n=443)	Everyday	39	8.8
	Thrice a week	91	20.5
	Once a week	84	19
	Once in 2 weeks	55	12.4
	Once a month	26	5.9
	No response	148	33.4
Practice insertive anal intercourse	Yes	299	67.5
Practice receptive anal intercourse	Yes	301	68.1
Frequency of Condom use	Always	185	41.8
	Often	109	24.6
	Sometimes	91	20.5
	Rarely	41	9.3
	Never	17	3.8

The number of male partners in the last three months varied widely among respondents. A small percentage (2.9%) reported no partners, while the rest ranged from one partner (14.4%) to more than five partners (19.6%). The partners' distribution was fairly spread across different numbers, reflecting diverse sexual behaviors. Regarding relationships with females, the respondents were almost evenly split, with 51% having a female friend and 49% not having one. The frequency of sex with a man varied, with 8.8% reporting daily intercourse, 20.5% thrice a week, 19%

once a week, 12.4% once in two weeks, 5.9% once a month, and 33.4% not responding. The practice of assertive and receptive anal intercourse was reported by 67.5% and 68.1% of respondents, respectively. Condom use varied, with 41.8% always using condoms, 24.6% often, 20.5% sometimes, 9.3% rarely, and 3.8% never.

Table 3 provides a detailed distribution of various forms of assault and police arrest among MSM attending HALG in Akwa Ibom State. The table reveals that 26.6% of respondents have been raped, 41.1% have not, and

32.3% did not respond. Among those who have been raped (n=118), the perpetrators were mainly partners (43.2%), friends (23.7%), and neighbors (14.4%), with smaller percentages involving the police (4.2%), relatives (3.4%),

unknown persons (6.8%), and others (4.2%). The timing of the last rape varied, with 21.2% within the last month, 30.5% between 1 and 6 months ago, 30.5% between 7 and 12 months ago, and 17.8% more than 12 months ago.

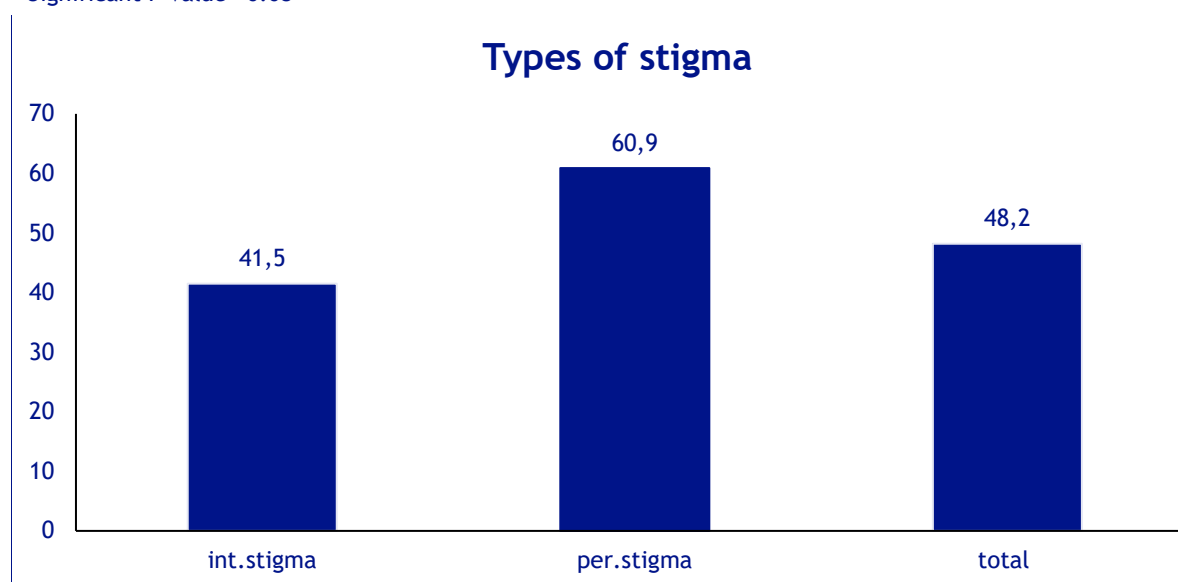
**Table 3:** Distribution of sexual assault/rape, physical assault, verbal assault, and police arrest among MSM attending HALG, Akwa Ibom State

Variables	Parameter	Frequency (n=443)	Percentage
Have been raped	Yes	118	26.6
	No	182	41.1
	No response	143	32.3
Rape perpetrator(n=118)	Partner	51	43.2
	Friend	28	23.7
	Neighbour	17	14.4
	Police	5	4.2
	Relation	4	3.4
	Unknown person	8	6.8
	Others	5	4.2
Last time MSM was raped (n=118)	Within the last month	25	21.2
	Between 1 and 6 months	36	30.5
	7-12 months ago	36	30.5
	Above 12 months	21	17.8
Ever been slapped, punched or hit	Yes	143	32.3
The last time physically assaulted (n=143)	Within the last month	19	13.3
	Between 1 and 6 months ago	52	36.4
	Between 7 and 12 months ago	29	20.3
	More than 12 months ago	21	14.7
	Can't remember	22	15.4
Physical assault perpetrator (n=143)	Partner	46	32.2
	Neighbour	43	30.1
	Relation	21	14.7
	Police	18	12.6
	Unknown person	15	10.5
Have been arrested by the police as an MSM	Yes	90	20.3
Have been verbally assaulted	Yes	210	47.4
The last time verbally assaulted	Within the last month	25	11.9
	Between 1 and 6 months ago	45	21.4
	Between 7 and 12 months ago	65	31
	More than 12 months ago	41	19.5
	No response	34	16.2

**Table 4:** Factors associated with stigma among MSM attending HALG, Akwa Ibom

Variables	Parameter	Level of stigma n (%)		Crude Odds ratio (95% CI)	P-value
		High stigma (n=144)	Low stigma (n=155)		
Age (years)	24 and below	26 (32.9)	53 (67.10)	Ref	
	25-34	98 (52.7)	88 (47.3)	0.98 (0.07-14.55)	0.99
	35 and above	20 (58.8)	14 (41.2)	0.32 (0.03-3.60)	0.355
Marital status	Single	97 (44.5)	121(55.5)	Ref	
	Married/cohabiting	40 (58.8)	28 (41.2)	1.78 (1.02 - 3.09)	0.054
	Divorced/separated	5 (55.6)	4 (44.4)	1.56 (0.41 - 5.96)	0.755
	Widowed	2 (50.0)	2 (50.0)	1.25 (0.17 - 9.01)	1.000
Education	No formal	7 (87.5)	1 (12.5)	Ref	
	Primary	13 (61.9)	8 (38.1)	0.23 (0.02-2.25)	0.378
	Secondary	67 (48.2)	72 (51.8)	0.13 (0.02-1.11)	0.072
	Tertiary	57 (43.5)	74 (56.5)	0.11 (0.01 - 0.92)	0.040*
Occupation	Artisan	9 (30.0)	21 (70.0)	Ref	
	Civil servant	20 (58.8)	14 (41.2)	5.87 (1.68-20.57)	0.006*
	Professional	21 (67.7)	10 (32.3)	8.73 (2.36-32.33)	0.001*
	Students	56 (48.3)	60 (51.7)	3.81 (1.26-11.55)	0.018*
	Others	3 (20.0)	12 (80.0)	0.64 (0.12-3.32)	0.595
Disclosure of HIV status	Yes	99 (63.9)	56 (36.1)	Ref	
	No	45 (31.2)	99 (68.8)	1.26 (0.57-2.82)	0.566
Adherence	No	88 (45.8)	104(54.2)	Ref	
	Yes	56 (52.3)	51 (47.7)	1,30 (0,81 - 2.08)	0.338
Substance abuse	No	108(66.7)	54 (33.3)	Ref	
	Yes	47 (34.3)	90 (65.7)	5.37 (2.49-11.55)	<0.0001*
Alcohol use	No	22 (25.0)	66 (75.0)	Ref	
	Yes	122(57.8)	89 (42.0)	0.82 (0.33-2.03)	0.672

\* Significant P value <0.05



**Figure 1.** A bar chart showing types of stigmas experienced by the MSM attending HALG, Akwa Ibom State

Physical assault was reported by 32.3% of respondents, with the last occurrence ranging from within the last month (13.3%) to more than 12 months ago (14.7%), and some respondents were unable to remember (15.4%). The

perpetrators of physical assault were mainly partners (32.2%), neighbors (30.1%), relatives (14.7%), police (12.6%), and unknown persons (10.5%). Police arrests related to being MSM were reported by 20.3% of respondents. Verbal



assault was more common, with 47.4% of respondents having experienced it. The timing of the last verbal assault ranged from within the last month (11.9%) to more than 12 months ago (19.5%), with some respondents not responding (16.2%).

Figure 1 shows the type of stigma experienced; perceived stigma was the most common among the respondents, 60.9% (182/299), and internal stigma was 41.5 % (124/299).

As shown in Table 4, the odds of high stigma are 0.98 (0.07-14.55) times higher in the 25-34 age group than in the 24 and below age group ( $p = 0.99$ ). The odds are 0.32 (0.03-3.60) times higher in the 35 and above age group than in the 24 and below age group ( $p = 0.355$ ). Married/cohabiting individuals are 1.78 (1.02 - 3.09) times more likely to experience high

stigma than single individuals ( $p = 0.054$ ). Tertiary-educated individuals are 0.11 (0.01 - 0.92) times more likely to experience low stigma than those with no formal education ( $p = 0.040$ ). Civil servants are 5.87 (1.68-20.57) times more likely to experience high stigma than artisans ( $p = 0.006$ ). Professionals are 8.73 (2.36-32.33) times more likely, and students are 3.81 (1.26-11.55) times more likely to experience high stigma than artisans ( $p = 0.001$  and  $p = 0.018$ , respectively). Those who abuse substances are 5.37 (2.49-11.55) times less likely to experience high stigma than those who do not abuse substances ( $p < 0.0001$ ). The other variables in the table did not show statistically significant associations with stigma levels, so they are not included in this interpretation.

**Table 5:** Factors associated with rape among MSM attending HALG, Akwa Ibom State

Variables	Parameter	Have you ever been raped?		Crude Odds ratio (95% CI)	P-value
		n (%)			
		Yes (n=118)	No (n=182)		
Age (years)	24 and below	27 (34.2)	52 (65.8)	Ref	
	25-34	78 (41.7)	109(58.3)	1.38 (0.80-2.38)	0.312
	35 and above	13 (38.2)	21 (61.8)	1.19 (0.52-2.74)	0.842
Marital status	Single	76 (34.7)	143(65.3)	Ref	
	Married/cohabiting	36 (52.9)	32 (47.1)	1.95 (1.04-3.64)	0.037*
	Divorced/separated	4 (44.4)	5 (55.6)	1.10 (0.19-6.28)	0.921
	Widowed	2 (50.0)	2 (50.0)	2.07 (0.24-17.54)	0.505
Education	No formal	4 (50.0)	4 (50.0)	Ref	
	Primary	13 (59.1)	9 (40.9)	0.21 (0.02-1.98)	0.307
	Secondary	56 (40.6)	82 (59.4)	0.10 (0.01-0.82)	0.025*
	Tertiary	45 (34.1)	87 (65.9)	0.07 (0.01-0.62)	0.008*
Occupation	Artisan	11 (36.7)	19 (63.3)	Ref	
	Civil servant	20 (57.1)	15 (42.9)	2.74 (0.89-8.42)	0.078
	Professional	17 (54.8)	14 (45.2)	1.72 (0.56-5.30)	0.347
	Students	47 (40.5)	69 (59.5)	1.63 (0.64-4.16)	0.302
	Unemployed	20 (27.4)	53 (72.6)	0.85 (0.31-2.34)	0.756
	Others	3 (20.0)	12 (80.0)	0.47 (0.09-2.43)	0.361
Substance abuse	Yes	70 (50.4)	69 (49.6)	Ref	
	No	48 (29.8)	113(70.2)	2.07 (1.18-3.63)	0.011*
Use of alcohol	Yes	98 (46.2)	114(53.8)	Ref	
	No	20 (22.7)	68 (77.3)	1.83 (0.93-3.61)	0.078
Number of male partners in the last three months	None	8 (80.0)	2 (20.0)	Ref	
	One	14 (34.1)	27 (65.9)	0.12 (0.02-0.81)	0.029*
	2 or 3	59 (46.1)	69 (53.9)	0.14 (0.02-0.87)	0.034*
	More than 3	37 (30.6)	37 (30.6)	0.08 (0.01-0.48)	0.006*

\* Significant P value <0.05

**Table 6:** Factors associated with physical assault of MSM attending HALG, Akwa Ibom State

Variables	Parameter	Have been physically abused n (%)		Crude Odds ratio (95% CI)	P-value
		Yes (n=143)	No (n=156)		
Age (years)	24 and below	28 (35.4)	51 (64.5)	Ref	
	25-34	96 (51.6)	90 (48.9)	1.61 (0.85-3.05)	0.145
	35 and above	19 (55.9)	15 (44.1)	1.86 (0.70-4.90)	0.212
Marital status	Single	97 (44.5)	121(55.5)	Ref	
	Married/cohabiting	38 (55.9)	30 (44.1)	1.58 (0.91-2.73)	0.133
	Divorced/separated	5 (55.6)	4 (44.4)	1.56 (0.41-5.96)	0.755
	Widowed	3 (75.0)	1 (25.0)	3.74 (0.38-36.55)	0.479
Education	No formal	6 (75.0)	2 (25.0)	Ref	
	Primary	15 (71.4)	6 (28.6)	0.92 (0.11-7.29)	0.933
	Secondary	60 (43.5)	78 (56.5)	0.33 (0.05-2.13)	0.245
	Tertiary	62 (47.0)	70 (53.0)	0.29 (0.04-1.83)	0.186
Occupation	Artisan	12 (40.0)	18 (60.0)	Ref	
	Civil servant	24 (68.6)	11 (31.4)	3.33 (1.10-10.12)	0.034*
	Professional	17 (54.8)	14 (45.2)	1.76 (0.58-5.34)	0.317
	Students	51 (44.0)	65 (56.0)	1.59 (0.63-4.01)	0.328
	Unemployed	37 (50.7)	36 (49.3)	1.9 (0.74-4.82)	0.18
	Others	2 (14.3)	12 (85.7)	0.27 (0.05-1.50)	0.134
Substance abuse	Yes	79 (57.7)	58 (42.30)	Ref	
	No	64 (39.5)	98 (60.5)	1.42 (0.83-2.46)	0.210
Use of alcohol	Yes	118(55.9)	93 (44.1)	Ref	
	No	25 (28.4)	63 (71.6)	2.26 (1.22-4.19)	0.010*

\* Significant P value <0.05

As shown in Table 5, the odds of being raped do not significantly differ across age groups compared to the reference group of 24 and below. Married or cohabiting individuals are 1.95 (1.04-3.64) times more likely to have been raped than single individuals ( $p = 0.037$ ). Individuals with secondary education are 0.10 (0.01 - 0.82) times less likely to have been raped than those without formal education ( $p = 0.025$ ). Similarly, individuals with tertiary education are 0.07 (0.01 - 0.62) times less likely to have been raped than those without formal education ( $p = 0.008$ ). Those who do not abuse substances are 2.07 (1.18-3.63) times more likely to have not been raped than those who abuse substances ( $p = 0.011$ ). Individuals with one male partner are 0.12 (0.02-0.81) times less likely to have been raped than those without ( $p = 0.029$ ). Those with 2 or 3 male partners are 0.14 (0.02-0.87) times less likely ( $p = 0.034$ ), and those with more than three male partners are 0.08 (0.01-0.48) times less likely to have been raped compared to those

with none ( $p = 0.006$ ). The other variables in the table did not show statistically significant associations with rape, so they are not included in this interpretation.

As shown in Table 6, civil servants are 3.33 (1.10-10.12) times more likely to have been physically abused than artisans ( $p = 0.034$ ). Individuals who do not use alcohol are 2.26 (1.22-4.19) times less likely to have been physically abused than those who use alcohol ( $p = 0.010$ ). The other variables in the table, including age, marital status, education, and substance abuse, did not show statistically significant associations with physical abuse, so they are not included in this interpretation.

#### **Qualitative (FGD) Results**

The overall goal of this study was to explore the stigma experienced by MSM who are HIV positive, including the violence they experience and coping mechanisms for stigma among this group of people. Four (4) Focused group discussions were conducted in 4 urban areas in

Akwa Ibom. These were Ikot Ekpene, Eket, Uyo and Oron. A total of 44 participants participated in the discussion. The mean age of the participants was 28.3 years+1.3, ranging from 47 to 19 years.

#### *Perceived Stigma*

Participants discussed their experiences of stigma in the workplace, community, among family members and in the health facility where they get treatment. There was a good understanding of what stigma meant as participants described their experiences. Some participants said they were ostracised by family members, mainly because of their sexual orientation.

*“The stigma I have here is that when my family members came to know that I am this kind of person (MSM), they treated me any way they liked and didn’t give me the honor I deserved...”* JU, 22yrs.

Some participants complained of the loss of relationships, mistrust and, in some cases, some suspicions directed towards them by some community members, often because of their orientation. *“...in my place of work, I have the way of my walking and dressing. So, each time I pass, people will whisper among themselves, they’ll give me a name: that is stigma too, such things I don’t like it. So that name alone is a stigma to me, and it hurts me.”* JB, 27yrs.

Some of the loss of relationships that some respondents experienced were driven by parents who made them bad reference points and warned their children and wards to dissociate with them. *“...because of how I behave, at times they do not like to come close to me, at times when I walk with people, the parent of these people will come and shout at that person he should stop walking with me that I will spoil their future and all that”* EA, 26yrs.

The HIV status of most of the respondents was not the reason they experienced stigma, as they rarely disclosed their status to people for fear of the repercussions. Most participants said they did not experience any

form of stigma in the health facility where they received treatment.

#### *Internalized stigma*

Participants discussed how they felt about their status and their sexual orientation. Some participants said they did not feel guilty about their status because it was not their fault. In contrast, others expressed initial guilt on being told of their HIV status but later braced up to the challenge due to the availability of drugs for treating the condition. Some participants said they initially had suicidal ideations because of their status. The availability of counselling and treatment services played a significant role in helping many respondents handle internal stigma.

#### *Violence*

Participants discussed their experiences with violence in their schools, families, and communities. The famous slogan for violence as experienced by MSM is ‘Kito’. Social media appeared to be an essential tool in promoting violence, as experienced by some participants. Participants discussed how public members used popular social media platforms to lure them and then used the opportunity to violate them. At other moments, participants discussed how various forms of inducement were used to attract and violate them.

*“...this person was trying to set me up. There the guy was trying to buy me something but suddenly some guys came out started beating me up, shouting at me that I am a gay and all these things, collected my phone, beat me up. They arrested me ..”* EM, 28yrs.

*“...So, I went to Aba to meet a guy (I met on social media). I met him in one hotel we sat down for drinks. I didn’t know they were other guys waiting for me in the same hotel. So, when we were talking, chatting with the guy other guys (heavy guys) came in and started beating me ... they collected my phone; they asked for my ATM and I was not with my ATM, so they beat me up...”*NR, 25yrs.

Participants did not attribute their experience of violence to the use of drugs, their dressing and other issues.

### *Coping with Stigma and Violence*

Participants discussed how they coped with stigma and violence in their environment. Most respondents said they would avoid situations in which they would be stigmatized. This may include avoiding friends and environments that are hostile.

*"...For me, I think violence starts from myself. Personally, I avoid anything that will lead to violence. Imagine when someone is calling you "homo", that's something that can provoke. So now, to avoid it, what I normally do is avoid any normal thing that will lead to that. Just for a girl who dresses indecently and goes out and she is abused; same thing, it starts from me; how I present myself out to others..."* SA, 24yrs.

Some participants resort to living within their shells and not sharing any personal challenges with those around them.

*"...I don't mix myself with everybody, so in my place, I don't tell anybody even my sisters that we use to stay with, I don't tell anybody."* VE.

Some participants indulge in social media to escape the loneliness of the outside world, but this is sometimes used as a tool for violence, as seen earlier.

*"...the way we chat, (social media) because of we don't have time for anybody, nobody will fight you there..."* NR, 27yrs.

Reporting to authorities is also one coping mechanism some participants employ when matters are beyond their control. Some participants alluded to the possibility of responding to violence with violence but said that to avoid escalating, they would report to a lawyer or a policeman instead. At other times, especially within family circles, a clergy is brought in to resolve the crises.

*"...I can be violent myself because, if I know that for instance, this room is not my room and I wanted to use this room and the right owner is there, it is me that brings the violence; then if I want to avoid that violence, I will ask to find out who the owner of the room is if I want to use it; and if the person is*

*there I will avoid not using the room so that I will not trigger violence."*

## **Discussion**

### *Types and levels of stigma*

The high level of stigma among HIV-positive individuals is well known. It has been described since the inception of the epidemic, but this disproportionately affects MSM as they suffer two layers of stigma, one from the disease itself and one from their sexual orientation. Those who disclosed their sexual orientation to family and friends had suffered gossip, deprivation and blackmailed and were treated poorly in the health facilities in situations where the health workers were aware<sup>27</sup>. About 60% of the participants suffered perceived stigma from friends, family members and colleagues at work; one of the FGD respondents said he was entirely ostracized from the family. The level of internal stigma is lower (41.5%) partly because most felt they have been able to cope with stigma over the years. In this study, 48% of the respondents have a high level of overall stigma (a combination of both perceived and internal stigma); occupation and substance abuse are the independent predictors of stigma among this population, MSM who are civil servants or professional have higher odds for stigma (OR 5.87 95CI:1.68-20.57) compared to artisan, probably because they work in a formal sector, where their colleagues talk about them and call them names as described in the FGD. The study findings show that 34.3% of participants who experience high stigma use substances. This may be a way of coping with stigma, but it has been reported that they are syndemic<sup>28</sup>; also, the fact that substance use is regarded as a social vice may increase their perceived stigma. The level of stigma tends to increase with age in this study, similar to what has been reported, though not an independent risk factor of stigma.

One of the effects of stigma is usually poor disclosure; this study shows that MSM with high levels of stigma were more likely to disclose their status than those with low stigma. About

fifty percent of the participants have disclosed their status; disclosure is mainly to their partners, who are likely to be MSM themselves. The fear of social exclusion and other forms of discrimination by family and friends usually prevent them from disclosing their status, as seen during the FGD.<sup>29</sup> Studies have shown that HIV stigma is associated with poor adherence to ART among MSM and the general population<sup>30</sup>. The adherence rate in this study was 45.8% within the last seven days before the survey and did not show any statistically significant relationship with stigma. The significant way MSM try to cope with stigma is by avoidance coping strategy people and trying to be alone; this has been reported as one of the common ways PLHIV cope with stigma.<sup>21,31</sup> In the qualitative section, some MSM experienced perceived stigma as a result of being ostracized by their family because of their sexual orientation highlighting the detrimental the detrimental impact of societal norms and prejudices on familial relationships, leading to exclusion and negative treatment.<sup>32</sup> MSM with internalized stigma in the study struggled with suicidal thoughts because of their status highlighting the need for comprehensive mental health support to address the detrimental effects of internalized stigma.<sup>33</sup>

### ***Violence (Physical and Sexual)***

MSM suffered different forms of violence because of their sexual orientation; about a third of MSM had been assaulted physically, and 70% of the assaults took place within the last 12 months prior to the study; this is consistent with the result of a study done in Abuja,<sup>10</sup> this underscores the vulnerability of MSM to violence in our society. Forty-seven percent of the MSM in the study have been blackmailed or verbally assaulted; this is similar to other studies in sub-Saharan Africa.<sup>10,13</sup> About two-fourth of the respondents reported having been raped; this proportion is higher than what was reported in the Abuja study;<sup>10</sup> more than 80% of the sexual assault occurred within the last 12 months before the study, this shows how recent the assaults are in our setting.

Intimate partners were responsible for 43% of all cases of rape and 32% of all cases of physical violence in this study. The prevalence of IPV has been reported to be high among MSM compared to other populations and linked to increasing HIV transmission and other STIs.<sup>28</sup> Twenty percent of MSM in this study reported having been arrested by police; this is lower than 28% reported in Abuja; this high level of arrest may be due to the criminalization of same-sex marriage, as has been reported previously.<sup>34</sup> Abuja undoubtedly has a higher presence of security agencies which may be the reason why the arrest is more. Police are likely to take advantage of this law to abuse the MSM; this may explain why police are the perpetrators of 12.6% and 4.2% of cases of physical assault and rape.

A study done in Kenya revealed that alcohol use increases the vulnerability of MSM to both sexual and Physical assaults,<sup>35</sup>; this study shows that those who abused alcohol were 2-fold more likely to have been physically assaulted compared to those who did not; alcohol is significantly associated with rape but not an independent risk factor, substance abuse is a predictor of rape among MSM. Both alcohol and substance abuse can alter the sense of judgement and may be why they are more vulnerable to assault. Young age was an independent risk for rape among MSM in Kenyan.<sup>35</sup> Being married was an independent risk factor for rape with an odds ratio of two compared to those who had never been married; this is likely because intimate partners are the highest perpetrators of rape. However, those with more than one sexual partner within the last three months were more likely to be protected from rape, but this may not apply to those who were raped for more than three months. In the qualitative section, some MSM outlined their experience of violence in their schools, family and communities including their experience of being lured and violated on social media platforms underscoring the roles of social media platforms in facilitators of violence, with perpetrators using online spaces to lure and exploit MSM.<sup>36</sup>

### ***Sexual practices of MSM***

About 51% of the MSM in this study are bisexual, similar to 56% reported in a study conducted across three cities in Nigeria<sup>37</sup> and 51.7% reported by Ochonye et al. among MSM living with HIV.<sup>38</sup> However, in a more recent study in the north-central, only about 36% of MSM living with HIV were bisexual.<sup>39</sup> Other studies outside the country reported lower rates of bisexual concurrency; the reason for high-rate bisexual practices among the MSM in this setting may be a cover-up for their “clandestine” activity, as society frowns at and criminalizes same-sex practices. In this study, 83% of the respondents have multiple same-sex partners within three months preceding the study, similar to another study in the country.<sup>39,40</sup> Sixty-eight percent (68% ) of the MSM practiced assertive anal sex; more than 50% has been reported to be consistent among MSM in Nigeria from 2007 to 2010.<sup>17</sup> Studies have shown that the risk of acquiring HIV or other STIs is higher among receptive anal intercourse,<sup>18</sup> which is 68.1 % in this study.

About 42% of the MSM in this study claimed to use condoms during sexual activity consistently, far less than the 82% reported by Ochonye.<sup>38</sup> Low condom use, multiple sexual partners, and concurrent bisexual activity among the MSM are all drivers of HIV transmission in the state and the country.

A high prevalence of Sexually transmitted infections (STI), especially chlamydial infection and gonorrhoea, have been reported in Nigeria among this population ranging from 17% to 26%<sup>4</sup>; a study carried out in Abuja 2019 reported 19% cases of genital ulcers among MSM,<sup>15</sup> though there was no definitive diagnosis in this study, 23% of the MSM reported symptoms suggestive of STI (abnormal discharge, genital ulcer and itching) in the last 12 months, abnormal discharge has the highest proportion and ulcers of both genital and anal constituted 30% of all symptoms reported. This

is not surprising because about 60% of them were not using condoms consistently. More than 80% of those with STI symptoms received care mainly from the Heartland Alliance because the facility is friendly to special populations; the criminalization of same-sex relationships has been shown to reduce the uptake of healthcare services, and stigmatization<sup>8</sup> of this population will increase the spread of HIV and other STIs.<sup>34</sup>

### ***Limitations***

This is a cross-sectional study, so causality cannot be established. The study is self-reported and is affected by social desirability bias. Many respondents had incomplete responses, especially in assessing stigma and violence, and were excluded from the analysis.

### ***Conclusion***

The MSM have a high level of stigma, especially perceived stigma, use of substances and occupations such as civil servant, professional and students are predictors of stigma among the population. They also suffered various forms of violence; about half of them have suffered physical violence, and two-fifths suffered sexual assault; intimate partners are the main perpetrators of all forms of violence. Those married, those who use substances and those without sexual partners are vulnerable to rape, while those who take alcohol and work as civil servants are prone to physical assault. The primary way they cope with violence is to withdraw to themselves. In some cases, they may return violence for violence.

### ***Recommendation***

Establish or intensify sexual health programs among this key population, including screening for STIs, managing STIs, and providing condoms and lubricants. Provision of comprehensive, integrated services should include mental Health care services and psychological support and counselling.

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