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HIGH PREVALENCE OF STIGMA-RELATED ABUSE AMONG A SAMPLE OF MEN WHO HAVE SEX WITH MEN IN TANZANIA: IMPLICATIONS FOR HIV PREVENTION

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Abstract

In sub-Saharan Africa, the prevalence of stigma-related abuse and violence among men who have sex with men (MSM) and its potential impact on the HIV/AIDS epidemic is unknown. This study estimated the prevalence and source of violence and abuse among a sample of MSM in Tanzania and characterized the association between levels of violence and sexual and mental health variables.

Data were taken from a larger study of 200 MSM in Tanzania. Frequency tabulations, bivariate analysis and logistic regression were performed to describe the prevalence and source of abuse and to determine the association between levels of violence and sexual demographics and mental health variables.

The MSM sample for this study was young (median age 23), somewhat educated with the majority having attained secondary school (80%) and mostly employed (60%). Verbal (48.5%) and moral (32.5%) abuse were the most predominant types of abuse among the sample and were mostly from people in the street and neighbors. Sexual abuse (30%) was mostly from partners and physical violence (29.5%) was largely from people in the street. Participants in the high violence level group had a significantly greater number of sexual partners, depression scores and internalized homonegativity (IH) scores. IH predicted HIV infection, and verbal abuse predicted IH.

There is a need for an increased awareness of violence and abuse faced by MSM in Tanzania, as well as effective programs to specifically target the issue of violence among MSM and its implication for mental health and for risky sexual behaviors and HIV transmission.

INTRODUCTION

Sub-Saharan Africa (SSA) has registered the highest burden of HIV/AIDS and remains the most affected region of the world. Approximately 4.9% of the population between the ages of 15 to 49 years old is HIV infected, compared to 1% and less in other parts of the world (The Henry J. Kaiser Family Foundation [KFF], 2012). Eastern and Southern Africa are the

most heavily affected regions of SSA: 46% of newly diagnosed infections occurred in this region by the end of 2010 (UNAIDS, 2012).

The HIV/AIDS epidemic in SSA has been characterized as generalized and driven by heterosexual modes of transmission. Men who have sex with men (MSM) have been largely omitted from HIV research and programming in SSA until recently (Lamarange et al., 2010; Baral et al., 2009). The first epidemiological study of prevalence of HIV among MSM was published only in 2005 in Senegal and revealed an HIV prevalence of 21.5% among MSM, 10 times the general population HIV prevalence (Wade, 2005). In Uganda and Kenya, researchers have reported HIV prevalence rates ranging from 15.8% to 50% (Muraguri, Temmerman & Geibel, 2012; Hladick et al., 2012), confirming that the HIV prevalence rates of MSM in SSA are significantly higher than among behaviorally heterosexual men in the region (Legrand et al., 2010; Griensven & Sanders, 2008; Baral & Phaswana-Mafuya, 2012; Smith et al., 2009). MSM are disproportionately affected by HIV if they engage in unprotected anal intercourse, which has a high probability of transmitting HIV, and because MSM in SSA have rarely been the target of prevention education.

Tanzania has an HIV prevalence of 5.7% among adults. Its HIV/AIDS epidemic has been stable over the past few years with a significant decrease in HIV prevalence over the past decade (UNAIDS, 2009). However, new HIV infections were estimated at 100,000 in 2009 (UNAIDS, 2012). In Tanzania, only one epidemiological study was completed among MSM, on the island of Zanzibar and reported an HIV prevalence of 12.3% (Dahoma et al., 2011). The first study of MSM completed on mainland Tanzania explored beliefs, knowledge and risk behaviors among MSM in Dar es Salaam, the main city of the United Republic of Tanzania (Nyoni & Ross, 2012).

The concentration of the HIV epidemic in this population is exacerbated by the non-supportive cultural, social and legal context of same-sex relationships in SSA. Same sex-relationships in most countries of SSA are illegal and punishable by law (Legrand et al., 2012; Poteat et al., 2012). This has made attempts at implementing programs specifically targeting MSM difficult. Several studies in SSA have also demonstrated that stigma is one of the most important determinants associated with vulnerability of MSM to Sexually Transmitted Infections (STIs) and HIV (Wade et al., 2005; Fay et al., 2008; Smith et al., 2009).

Stigma, “an attribute that is deeply discrediting” (Goffman, 1963, p.3) is manifested through denial of access to health care, criminalization of same-sex behaviors and human rights abuse, has increased its relevance in the context of the HIV epidemic in SSA (Baral et al., 2009). Such stigma can result in a range of behaviors of increasing seriousness from negative attitudes, discrimination, shunning, verbal aggression or in extreme cases physical violence. In the context of SSA characterized by hostile social, political, legal, religious and cultural environments for MSM, violence and other types of discriminatory acts against MSM stem from stigma (Muraguri, Temmerman & Geibel, 2012; Geibel, Tun, Tapsoba & Kellerman, 2010).

Few studies have explored the manifestation of stigma and discrimination among MSM in East Africa through violence and abuse. The vulnerability of MSM faced with high levels of stigma-related violence and abuse could influence mental health processes and inhibit HIV prevention behaviors including health care seeking behaviors and risky sexual behaviors.

The purpose of this study was to estimate the prevalence and source of violence among a sample of MSM in Dar es Salaam, Tanzania and to uncover the relationship between violence manifested through physical, verbal, moral and sexual abuse and variables including sexual demographics and mental health outcomes. The hypotheses of this study are:

1. There is a high prevalence of violence and abuse among the sample.
2. Violence and abuse are (a) negatively correlated with HIV knowledge, risk perception and status and (b) positively associated with number of previous partners.
3. Violence and abuse are positively associated with internalized homonegativity and depression.

METHODS

Study design, sampling and recruitment

The study was a cross-sectional survey carried out in Dar es Salaam, Tanzania, a city of approximately 3 million inhabitants, in 2011–2013. Respondents comprised 200 MSM (transgendered people excluded) recruited using Respondent Driven Sampling (RDS) methodology. RDS involves sampling where the researcher uses a first set of individuals to refer those they know and in turn these individuals refer those they know throughout a network, until the target sample number is reached (Heckathorn, 1997). This sampling method has been proven effective in reaching hidden and hard-to-reach populations, particularly in the context of HIV behavioral and biological surveillance in international settings (Malekinejad et al., 2008). Since MSM in Tanzania are a hidden population, RDS is an appropriate recruitment strategy.

The initial sample selected by the researchers from the target population is known as “seeds” (Gile & Handcock, 2010). Five seeds who were MSM over 18 identified by the Community Advisory Board from different areas of the city (Kinondoni, Temeke) for better representativeness were used to recruit the first wave. Three seeds were under 30 years old: each seed was given three coupons to recruit three members whom they knew to be MSM. Coupons had unique identification numbers linking coupons to the referring seed. Demographic characteristics (education, age) of those recruited as part of the waves were continually compared to the characteristics of seeds to determine when the sample reached equilibrium. As any seed was about to close, the number of coupons was reduced to two and the last respondents in each seed were not given any coupon. Equilibrium and the sample size of 200 was reached after seven waves.

Procedure

Eligible participants underwent a face-to-face interview by trained research assistants, using structured questionnaires with some open-ended questions. All interviews were completed in Swahili. The accuracy of the translations and its content validity was assessed by a panel of native Swahili-speaking experts. The questionnaire was pilot-tested with five MSM for comprehension, clarity and response range, and modified. Participants were informed regarding the purpose of the interview, the study's rationale, and the benefits/risks of participation. Oral informed consents for all forms of data collection were obtained in Swahili or English. The interview took 30–40 minutes to administer. For participants who could not read or had difficulty in understanding items, research assistants read items to the participants or explained the items. The interviews took place in private at a storefront/house or in a prearranged alternative safe location. Each participant received an equivalent of \$2.75 US dollars to cover transportation expenses. No identifiers were included. The study was reviewed and approved by the University of Texas Health Science Center's Institutional Review Board (HSC-SPH-10-0033) and the Tanzanian National Institute for Medical Research (NIMR/HQ/R.8a/Vol. IX/1088).

Measures

The questionnaire contained sections covering demographic data and items related to MSM's sexual experience, physical and mental health, physical, sexual, verbal and emotional abuse, and other variables including HIV knowledge, HIV risk perception, internalized homonegativity, depression and HIV status. Items used to establish the "level of violence", HIV knowledge and HIV risk perception were created specifically for this study.

Levels of violence—Four types of abuse were examined: physical, verbal, moral and sexual abuses. Physical abuse was defined as having someone beating the participant, verbal abuse as having someone directing threats or insults toward the participant, moral abuse as having someone discriminating against or humiliating the participant and sexual abuse as being forced to have sex. Source of abuse was categorized as follows: family member, partner, neighbor, person in the street, coworker, police, and other.

In order to determine the levels of violence, we summed responses of each participant to the four types of abuse. Participants could answer "Yes", "No" or "No response" to the four following questions: "Have you been the victim of physical violence or abuse? Have you been the victim of verbal abuse? Have you been the victim of moral abuse? (Someone discriminated against you or humiliated you). Have you been the victim of sexual abuse?" (Someone forced you to have sex). Answers were dichotomized based on the number of "Yes" answers to the questions. High-level violence was characterized as 3 or more "Yes" answers and Low-level violence was characterized as 2 or less "Yes" answers to the questions.

HIV Knowledge—Eleven items made up the HIV knowledge scale. The scale was created based on the number of correct items.

HIV Risk perception—HIV risk perception was measured with 5 questions assessing the level of risk of participants in regards to their probability of being infected, of their friends and close ones to be infected and of the probability of infecting someone else. The item scores were: No risk (0); Low risk (1); Moderate risk (2) and High Risk (3). Items were dichotomized between high risk perception (moderate and high risk) and low risk perception (no risk and low risk), and summed to give a high risk perception score and a low risk perception score.

Internalized Homonegativity (IH)—The study used an 8-item short version of the Reactions to Homosexuality Scale (Smolenski, Diamond, Ross & Rosser, 2010). This scale has been validated among MSM in SSA and comprises IH factors including personal comfort with homosexuality, social comfort with gay men and public identification as gay (Ross, Kajubi, Mandel, McFarland & Raymond, 2013; Ross et al., 2010) with a 6-point Likert type response from 1= Strongly disagree to 6= Strongly agree.

Depression—We used the Patient Health Questionnaire-9 (PHQ-9), a validated instrument measuring the nine diagnostic criteria for DSM-IV depressive disorders (Monahan et al., 2007). This 9-item scale measures depression diagnosis and severity. It has been extensively used in SSA and validated in Swahili (Omoro, Fann, Weymuller, Macharia, & Yueh, 2006). This measure was reliable and valid among SSA populations (Omoro et al., 2006; Adewuya, Ola & Afolabi, 2006).

HIV status—HIV-1 status was tested by two rapid tests, Determine[®], Abbott Laboratories, USA; and Unigold[®], Trinity Biotech plc, Ireland. A total of 28 participants declined testing. All testing was accompanied by pre- and post-test counseling following the Tanzanian National HIV Guidelines. Those with positive tests were referred to the HIV/AIDS Treatment Centre at Muhimbili National Hospital.

Data Analysis

Level and source of abuse and violence—SPSSX-21 was used for analyses. Prevalence and source of abuse were examined using frequency tabulations and percentages for each type of abuse by participants. Types of abuse included physical, verbal, moral and sexual abuse, and the possible sources of abuse were family member, sexual partner, neighbor, people in the street, coworker and police.

Association between levels of violence and sexual demographics and mental health characteristics—Independent *t*-tests were carried out to explore the relationship between high and low violence and HIV knowledge, risk perception, number of partners and age, and for mental health characteristics (IH and depression). Differences in HIV status between variables were computed using chi-square tests.

We carried out logistic regression on the binary variables of high versus low internalized homonegativity (split at the median), with dependent variables of age and experience of abuse (physical, verbal, moral, and sexual) with initial entry of the variable “number of gay/bisexual men over 15 known” (network size) to control for network size, followed by simultaneous entry of variables. In a second similar regression model we used HIV status as

the dependent variable and adding in IH split at the median. Finally, we used depression score split at the median as the dependent variable with the same binary experience of abuse variables. As Heckathorn (2007) advises, unadjusted data were used for analyses of associations. Since RDS obtains a random sample of networks (Abdul-Quader et al., 2006; Liu et al., 2012; Wang et al., 2005), we used a combination of parametric and nonparametric tests as appropriate.

RESULTS

Demographic characteristics

Demographic characteristics of the study population are presented in Table 1. Median age was 23 (IQR: 21–28) with the majority of participants being less than 24 years old. Participants predominantly reported being employed (80%) and nearly 60% had attained secondary school. Most respondents were never married (92%), although 17% reported ever being married or living with a female partner. Almost two-thirds of the sample (63%) self-identified as gay or homosexual, the remaining self-identifying as bisexual (32%), undecided (3.5%) and straight or heterosexual (1.5%). Participants were asked about HIV testing history and 78% of participants had ever taken an HIV test. The results of the HIV rapid tests indicated that 30.2% of those tested were HIV positive: 14% of participants did not take the test.

Level and source of violence and abuse

Four types of abuse were examined: physical, verbal, moral and sexual abuses. Physical abuse was defined as having someone beating the participant, verbal abuse as having someone directing threats or insults toward the participant, moral abuse as having someone discriminating against or humiliating the participant and sexual abuse as being forced to have sex. Source of abuse was categorized as follows: family member, partner, neighbor, person in the street, coworker, police, and other.

Among the four types of abuse, the highest levels were verbal abuse and moral abuse, with 49% of the sample reporting verbally abuse and 33% of the sample reporting being morally abused (Table 2). The majority of participants reporting physical, verbal and moral abuse were abused by people in the street: 57.6%, 73.2% and 46% respectively. Surprisingly, the highest rates of sexual abuse were reported to be from partners: more than half of participants reporting sexual abuse were abused by their partners (58%).

Association between levels of violence and abuse and sexual and mental health characteristics

In terms of sexual demographics (Table 3), numbers of partners in the previous 6 months was significant: participants with higher levels of violence had significantly higher number of partners compared with those in the low level of violence group. There was a significant relationship between HIV status and level of violence and participants with low levels of violence were more likely to be HIV negative. Participants with high level of violence were more likely to self-identify as gay/homosexual.

Both IH and depression were significantly associated with levels of violence. Participants experiencing higher levels of violence had significantly higher IH scores compared to those with low levels of violence. Participants in the high violence group had a mean depression score significantly higher than that of participants in the low violence level group.

There were no significant differences in the mean age, HIV knowledge and HIV risk perception among the low violence group and the high violence group. Participants' level of education and marital status did not differ by level of violence.

Results of logistic regression analysis are presented in Table 4. The single predictor of IH was verbal abuse. In the second regression, of all the variables, IH alone predicted HIV status ($\text{Exp}(B) = 2.16$, 95% CI 1.02–4.62, $p = .04$, Nagelkerke $R^2 = .14$). Both verbal abuse ($\text{Exp}(B) = 2.54$, 95% CI 1.03–6.22, $p = .04$) and moral abuse ($\text{Exp}(B) = 4.20$, 95% CI 1.31–13.42, $p = .02$, Nagelkerke $R^2 = .25$) were significant predictors of high depression scores. The median depression score was 4, mean 5.68, $SD = 5.69$, range 0–27. Monahan et al. (2008) regard scores ranging from 0 to 4 as minimal depression and from 5 to 9 as mild depression.

DISCUSSION

The hypotheses were partially supported. A high prevalence of stigma-related abuse and violence exists among MSM in Tanzania, with verbal abuse and moral abuse being the most prevalent from people in the street, neighbors and family members. Sexual abuse was also high from partners. Significant associations were found between level of violence and number of sex partners in the previous six months, HIV status, self-identification as gay or homosexual, depression and IH.

The high prevalence of abuse measured by this study and the source of this abuse is particularly striking. There was a prevalence of 48.5% for verbal abuse and 32.5% for moral abuse and participants were mostly abused by people in the street and by family members. Human rights infringements and violence in the form of abuse have been acknowledged in the literature on MSM in SSA (Smith et al., 2009; Muraguri et al., 2012; Hladick et al., 2012). Our data indicate the presence and pervasiveness of violence and abuse in Tanzania. Moral and verbal abuse from people in the streets and family members in particular are direct elements of a highly stigmatized environment. The high number of MSM victims reflects Tanzania's homophobic cultural and socio-political context and could be indirectly linked to the concentration of the epidemic among MSM. HIV prevalence among this sample was high (30.2%). Levels of violence correlated with HIV status so that MSM in the low-violence group were significantly more likely to be HIV negative. The Tanzanian National Multisectoral HIV prevention strategy (2009–2012) includes the recognition that MSM are an under-studied group that is vulnerable to HIV due to the classification of this group as part of the most at risk- groups. However, strategies for HIV prevention programs and interventions directed specifically at MSM are lacking.

Of particular interest is the fact that 58.3% of *sexually* abused men were abused by their partners. This high prevalence signals the presence of intimate partner violence (IPV) in

MSM relationships in Tanzania. However, such rates are not unusual for heterosexual relationships in general in SSA. In Nigeria, for example an intimate partner sexual violence prevalence of 29.3% was found and in South Africa, 42.3% prevalence was found among heterosexual married couples (Fawole, Salawu & Olarinmoye, 2009; Abrahams et al., 2006). Sexual intimate partner violence has been found to correlate with unprotected anal sex and experiences of homophobia among a sample of gay men in South Africa (Stephenson, Voux & Sullivan, 2011).

Increased IH and depression scores were significantly higher among MSM in the high-violence group compared to those in the low-violence group. The cross-sectional nature of these data does not establish causality. However, in the context of Tanzania where homosexuality is legally and socially proscribed, as is the case for most countries of SSA, it may be possible that MSM with internalized negative attitudes about their sexuality may be more aware, attentive and susceptible, thus more likely to recall and to report instances of abuse.

On the other hand, it may be that IH increases as a result of high anti-gay violence, particularly if the person's gender expression is feminine. Here, the person may display behaviors that may lead to the suspicion that they are homosexual. Those actions might then result in stigma-related abuse, which in turn could give way to increased feelings of IH.

In this sample, 63% of participants self-identified as exclusively homosexual and analyses indicated that participants in the low level violence group were less likely to self-identify as gay or homosexual. It has been noted in the literature that people self-identifying as "homosexuals" are less likely to have high levels of IH (Adebajo, Eluwa, Allman, Myers & Allonsi, 2012; Vu et al., 2012), in contrast to these findings. People who identify themselves as "bisexual" may be responding to higher shame or IH by defining themselves as less homosexual (Ross, 1979).

These data suggest that high levels of violence have significant consequences on mental health among MSM. Similar findings were found among a sample of gay men in New York with the conclusion that IH and stigma-related violence and abuse predict psychological distress among MSM. In a sample of gay men in Nigeria, HIV positive participants were twice as likely to report IH as did those who were HIV negative (Adebajo et al., 2012) and in South Africa, patients with high IH scores were more like to be misinformed about HIV (Vu et al., 2012). Finally, IH was found to be associated with HIV risk behavior, specifically with unprotected receptive anal intercourse among a sample in Uganda (Ross, Kajubi, Mandel, McFarland & Raymond, 2013). It might be beneficial to integrate themes related to stigma to general HIV prevention messages and programs. Further, strength of religious belief appears to interact with IH and violence and this suggests discrimination emanating from religious fundamentalism may be a particularly potent source of stigma (Ross & Anderson, 2014).

That the single most potent predictor of IH was verbal abuse. Perhaps verbal abuse is so clearly identified with the actual or assumed homosexual status of the victim and "verbalizes" the link. This is important as the data indicate that IH itself is the variable that

significantly predicts HIV status in this sample. Both verbal and moral abuses were predictors of high depression scores, suggesting a possible mental health mechanism for the link with HIV status. Since all but four of the respondents were unaware of their HIV positive status, it is most unlikely that the depression scores could be explained by knowing about their HIV status.

This study is among the first in SSA to explore stigma related abuse and violence among MSM. It has several limitations including that as a cross-sectional survey on an urban sample, causality cannot be inferred. Self-reported data on the source and prevalence of abuse may either be over- or underreported. Further, the results from this study may not generalize to MSM populations outside of East Africa or to contexts where homosexuality is not criminalized.

These findings strengthen the case for further research on MSM population in SSA where same-sex relationships are unacceptable at social, cultural and legal levels. Specifically, direct or indirect relationships between stigma related violence and the HIV epidemic should be looked at more closely, not only among MSM, but among other stigmatized groups. Future research should also examine mental health components in the context of HIV prevention and “most-at-risk populations”. There is a need to investigate the role of stigma and violence in undermining HIV prevention efforts in SSA.

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Table 1

Sample demographic characteristics.

	N	%
Age		
18–20	42	21
21–23	63	31.5
24–27	42	21
28 – 59	53	26.5
Education		
Never been to school	1	0.5
Primary School	69	34.5
Secondary School	119	59.5
Tertiary School	11	5.5
Currently employed: Yes	162	81
Marital Status		
Never Married	183	91.5
Married/Living with a partner	9	4.5
Separated/divorced/widowed	7	3.5
Ever married/lived with female partner: Yes	34	17
Self-identified sexual orientation		
Gay/homosexual	126	63
Straight/heterosexual	3	1.5
Bisexual	64	32
Undecided	7	3.5
HIV Testing		
Ever taken HIV test: Yes	154	77.8
HIV status		
Positive	52	26
Negative	120	60
Did not test	28	14

Table 2

Prevalence of abuse among a sample of 200 MSM in Dar-Es- Salaam.

	N	(%)
Physical abuse	59	29.5
Verbal abuse	97	48.5
Moral abuse	65	32.5
Sexual abuse	60	30

Frequency of the source of abuse among MSM reporting abuse				
	Physical abuse n (%)	Verbal abuse n (%)	Moral abuse n (%)	Sexual abuse n(%)
Family Member	18 (30.5)	23 (23.7)	21(32.3)	6(10)
Lover	16(27.1)	9(9.3)	9(13.9)	35(58.3)
Neighbor	6(10.2)	39 (40.2)	31(47.7)	4(6.7)
People in the street	34(57.6)	71(73.2)	51(46)	21(35)
Coworker	0(0)	4(4.1)	1(1.5)	0(0)
Police	7(11.9)	8(8.25)	11(16.92)	1(1.66)

Table 3

Association between levels of violence and sexual and mental health demographics.

	Level of violence (Mean, (SD))		t	df
	Low	High		
Numbers of Partners	6.64 (7.74)	11.58 (14.84)	-3.10 **	198
Internalized Homonegativity	23.11 (8.59)	26.62 (8.79)	-2.69 *	197
Depression	13.53 (5.08)	17.36 (6.18)	-3.82 **	138
Age	24.66 (5.37)	24.51 (5.12)	0.20	198
HIV Knowledge	8.70 (1.48)	8.43 (1.79)	1.10	198
HIV risk perception	1.82 (0.39)	1.90 (0.31)	-1.48	197

Level of Violence					
	High	Low	χ^2	p	
HIV status					
Positive	27	25	9.4	0.01	
Negative	34	86			
Self-Identification					
Gay/Homosexual	50	76	4.1	0.04	
Bisexual/straight	15	49			
Level of education					
Primary school	19	50	2.6	0.10	
Secondary school/Tertiary	50	80			
Marital Status					
Never married	63	120	0.1	0.94	
Married/Separated/Divorced/Living with a partner	4	8			

*Note.** $p < .05$;** $p < .01$.

Standard Deviations appear in parentheses below means.

Table 4

Logistic Regression on Discrimination Predictors of Internalized Homonegativity

Variable	Exp(B)	95%CI	P
Physical abuse	1.38	.61–3.13	.44
Verbal abuse	2.90	1.40–6.02	.004
Moral abuse	1.98	.83–4.70	.12
Sexual abuse	.81	.40–1.65	.56
Age	1.12	.61–2.1	.72

Nagelkerke $R^2 = .18$