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Healthcare-related stigma among men who have sex with men and transgender women in sub-Saharan Africa participating in HIV Prevention Trials Network (HPTN) 075 study

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ABSTRACT

The inability to access health services when needed is a critical barrier to HIV prevention, treatment and care among men who have sex with men (MSM) and transgender women (TGW). Using data collected in HPTN 075, we explored factors associated with any experienced healthcare-related stigma. HPTN 075 was a cohort study to assess the feasibility of recruiting and retaining MSM and TGW in clinical trials in sub-Saharan Africa. Of 401 MSM and TGW enrolled at four sites (Kisumu, Kenya; Blantyre, Malawi; Cape Town, Soweto, South Africa) 397 contributed to the analysis (79.9% cis-gender and 20.1% TGW). Of these, (45.3%; 180/397) reported one or more of healthcare-related stigma experiences. Most frequently reported experiences included fear to seek healthcare services (36.3%) and avoiding seeking such services because of the discovery of MSM status (29.2%). Few men and TGW (2.5%) reported having been denied health services because of having sex with men. In multivariable analysis, more participants in Soweto [adjusted odds ratio (AOR) = 2.60] and fewer participants in Blantyre (AOR = 0.27) reported any healthcare-related stigma experiences, in comparison to participants in Kisumu. MSM and TGW that did not have a supportive gay community to rely on were more likely to report any healthcare-related stigma experiences (AOR = 1.46), whereas MSM and TGW who reported high social support and who never had engaged in transactional sex were less likely to report such experiences (AOR = 0.76 and AOR = 0.43, respectively). Our results suggest that encouraging support groups for MSM and TGW as well as training and sensitizing healthcare staff, and the general community, on MSM and TGW health issues and cultural competence may reduce stigma, improve access to healthcare, which could ultimately reduce HIV transmission.

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Introduction

Stigma associated with sexual minority identities such as men who have sex with men (MSM) and transgender women (TGW) is common. In many sub-Saharan African countries, homosexuality is illegal, and MSM report rapes, evictions and alienation from friends and family (Arreola et al., 2015). Homophobia and criminalization of same-sex behavior can result in low self-esteem and reduced use of healthcare services and prevention measures (Beyrer, 2014; Duvall et al., 2015). This is important because sexual minorities are at higher risk for HIV acquisition; MSM are 19 times and TGW are 49 times more likely to have HIV compared to the general population (UNAIDS, 2014; UNAIDS, 2016).

MSM may have a greater need for services than non-MSM given their reported greater risk for mental disorders, suicidal ideation, substance misuse and deliberate self-harm (King et al., 2008). Having less access to health care is associated with negative attitudes and health behaviors (McKirnan et al., 2013). An important mitigating factor of psychological distress is social support. Social support has been associated with physiological benefits (Uchino et al., 1996) and healthy coping strategies among gay men with HIV (Leserman et al.,

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1992). Low levels of social support can adversely affect the ability of MSM to effectively deal with stressors, challenges and thus contribute to HIV risk behaviors; higher levels of social support are associated with increased access to HIV services (Holland et al., 2015; Viswanath et al., 2017). Less research has been directed at transgender individuals, though one study found that increased social support was related to lower levels of depression and anxiety in this population (Budge et al., 2013).

Recently, there has been increased attention on the perception of healthcare-related stigma experiences among sexual minorities (Kosenko et al., 2013). In a small survey study in Kenya, more than 60% of MSM were not comfortable seeking health services from a public hospital (Okall et al., 2014). Similarly, in Uganda, nearly three-quarters of MSM interviewed reported discomfort in discussing their sexual orientation with healthcare providers (Wanyenze et al., 2016), and in a qualitative study of MSM in South Africa, all had either witnessed or experienced homophobia from healthcare workers (Lane et al., 2008). The perception of negative attitudes of healthcare providers or real experiences, such as arrest or denial of services (Beyrer, 2010; Rebe et al., 2012), likely cause MSM to fear seeking care and leave them at higher risk for health issues (Fay et al., 2011; Kennedy et al., 2013; Mayer et al., 2013). A survey study found that transgender individuals' views on healthcare problems center on gender insensitivity, displays of discomfort, denied services, substandard care, verbal abuse and forced care (Kosenko et al., 2013). Comfort in accessing healthcare services is critical because persons receiving HIV care have lower morbidity and mortality (Axelrad et al., 2013).

Using data collected in HPTN 075 study, the aims of this study were to describe healthcare-related stigma that MSM and TGW participants experience and to explore factors associated with these experiences. HPTN 075 was a prospective cohort study designed to assess the feasibility of recruiting and retaining MSM in HIV research studies in sub-Saharan African countries.

Methods

Study design, setting and participants

Data were collected as part of the HPTN 075 study, conducted in Kisumu, Kenya; Blantyre, Malawi; Soweto, and Cape Town, South Africa from 2015 to 2016. Participants were MSM and TGW recruited regardless of their HIV serostatus. To be eligible, a person had to be 18–44 years of age, have had anal sex with a man in the past 3 months, be male at birth, be willing to undergo HIV testing and receive the results, be able to provide locator information for themselves and at least two contacts, be willing to participate in all scheduled study assessments, commit to not participating in any HIV intervention or vaccine study, and plan to remain in the study area for at least 1 year.

Recruitment

Implementation of the study involved extensive collaboration with MSM communities at the sites, including the development of participant recruitment strategies. Recruitment approaches differed per site and included: (1) peer outreach by MSM, (2) participant referral, (3) distribution of announcements at venues and events, and (4) key figures referral-trusted persons with access to MSM and TGW networks who could distribute study information.

Data collection

A face-to-face computer-assisted interview was completed at the enrollment visit. Some sections could be completed by the participants themselves if they preferred to do so.

Measures

HPTN 075 enrollment data was used as baseline data. Healthcare-related stigma, the primary outcome variable, was defined as reporting experiencing or perceiving one or more of six stigma experiences elicited with the following questions (Baral et al., 2013): (1) Have you ever felt afraid to go to healthcare services because you worry someone may learn you have sex with men?; (2) Have you ever avoided going to healthcare services because you worry someone may learn you have sex with men?; (3) Have you ever been denied health services (or someone kept you from receiving health services) because you have sex with men?; (4) Have you ever felt that you were not treated well in a health center because someone knew that you have sex with men?; (5) Have you ever had difficulties in accessing healthcare services because you have sex with men? and (6) Have you ever heard healthcare providers gossiping (talking) about you because you have sex with men?

We assessed social demographic information (age, education, employment status, income, marital status and living arrangement), and various psychosocial, psychosexual and health-related variables. These included ongoing same-sex relationship (Yes/No), self-perceived masculinity/femininity (4-point scale), gender identity (male or female/transgender), sexual attraction (5-point scale), sexual identity (gay or bisexual), negative feelings

about homosexuality (4 items adapted from Mohr and Fassinger (2000, 2006), p. 1 = strongly agree, 4 = strongly disagree; a mean score was calculated), concealment of homosexuality (4-point scale based on Day & Schoenrade, 1997); homophobic experiences, 5 yes/no questions score = number of yes answers (based on Baral et al., 2011); gay community support (5-point scale) and social support (5-point scale based on Dandona et al., 2005). Participants were asked about the experiencing sexual abuse as a child, having been forced to have sex, and engagement in transactional sex. Related to participants' health status, we assessed recreational drug use (1 question; 5-point scale; 1 = never – 5 = daily or almost daily), alcohol drinking with the AUDIT-C (3 items used to produce a 4-way classification, low-risk to severe-risk) (Aertgeerts et al., 2000; Bradley et al., 2007), and depression with the Patient Health Questionnaire-9 (PHQ-9) (Kroenke et al., 2010), p. 9 questions used to produce a 4-way classification (none mild moderate moderately severe and severe). Additionally, HIV status was assessed at screening and was the concordant outcome of two blood-tests.

Ethics

Approval for the study was obtained from each local Institutional Review Board (IRB). In addition, the study was approved by the Division of AIDS, U.S. National Institutes of Allergy and Infectious Diseases. Consent was obtained from participants before the initiation of data collection; this consent was given verbally in Kisumu, as directed by the local IRB, and in writing at the other study sites. A copy of the written informed consent script was offered to all. Consistent with local standards, participants received compensation for their time and reimbursement for transport expenses.

Data analysis

We computed descriptive statistics for all variables included in the analysis including healthcare-related stigma. Initial bivariate logistic regression models were fit and unadjusted odds ratios (OR) and confidence intervals (CI) computed. All independent variables, regardless of their significance in bivariate analysis, were then entered into a stepwise logistic regression with selection of variables at entry significance level of 0.1 and exit significance level of 0.1. Adjusted odds ratios (AOR) and CI were calculated. Stepwise regression was chosen because of the exploratory nature of this study. Only complete cases were analyzed for bivariate and multivariate analysis.

Results

Among 401 baseline participants, 4 had missing values for the healthcare-related stigma variable resulting in a total of 397 participants. The participants were distributed almost evenly among the four sites. Of the 397 participants, 25.2% were from Soweto, 24.9% were from Cape Town, 25.2% were from Kisumu and 24.7% were from Blantyre. Most (82.1%) participants were HIV negative. Participants generally had a middle (42.7%) or low (35.9%) level of education and 21.2% reported no income. Other participant characteristics can be found in Table 1.

Nearly half of MSM and TGW (45.3%) contributing data reported at least one healthcare-related stigma experience. The most frequently reported healthcare-related stigma experience was feeling afraid to seek healthcare services (36.3%). In order by frequency, other healthcare-related stigma experiences reported were: avoiding seeking such services because of worries that someone might discover their sexual involvement with men (29.2%); ever hearing healthcare providers gossiping about them because they had sex with men (13.9%); feeling not being treated well in a healthcare center (8.8%); having had difficulties in accessing healthcare services (7.8%); and being denied health services because of their sexuality (2.5%).

Bivariate analysis

The proportions of MSM and TGW reporting one or more healthcare-related stigma experiences at each site were 64.0% in Soweto, 51.5% in Cape Town, 45.0% in Kisumu and 20.4% in Blantyre (Table 2). The odds of any healthcare-related stigma were higher for participants in Soweto [odds ratio (OR) = 2.17, 95% confidence intervals (CI) = 1.23, 3.83] and lower for participants in Blantyre (OR = 0.31, 95% CI = 0.17, 0.59) compared to the odds for participants in Kisumu (Table 2). The odds of healthcare-related stigma were lower for participants sexually attracted to men and women compared to the odds of participants who were exclusively attracted to men (OR = 0.48, 95% CI = 0.32, 0.72); never had a forced sex experience compared to those who said they had (OR = 0.46, 95% CI = 0.29, 0.72); and never engaged in transactional sex compared to those who said they had engaged in transactional sex (OR = 0.52, 95% CI = 0.34, 0.80). The odds of healthcare-related stigma were higher the more homophobic experiences participants reported (OR = 1.76 per additional "yes" answer, 95% CI = 1.42, 2.18); the more participants felt they did not have a gay community to rely on (OR = 1.32, 95% CI = 1.01, 1.71); and the more they tried to conceal their

Table 1. Characteristics of men who have sex with men and transgender women participating in the HPTN 075 study in Kenya, Malawi, and South Africa, 2016–2017.

	n (%) *N* = 397	Mean (sd)
Study site		
Kisumu, Kenya	100 (25.2%)	
Blantyre, Malawi	98 (24.7%)	
Cape Town, South Africa	99 (24.9%)	
Soweto, South Africa	100 (25.2%)	
Age (in years)		24.3 (5.40)
Education		
Low (less than grade 12)	141 (35.9%)	
Middle (grade 12)	168 (42.7%)	
High (education beyond secondary school)	84 (21.4%)	
Employment status		
Full or part time employed	118 (29.7%)	
Self-employed	56 (14.1%)	
Unemployed (including in-between jobs)	110 (27.7%)	
Student	101 (25.4%)	
Other	12 (3.0%)	
Income		
No income	84 (21.2%)	
≤50 percentile	101 (25.4%)	
>50 percentile	162 (40.8%)	
No answer	50 (12.6%)	
Marital status		
Not married	369 (92.9%)	
Married/legal partnership	28 (7.1%)	
Living arrangement		
Independent	84 (21.2%)	
With partner	35 (8.8%)	
With relatives (including parents)	245 (61.7%)	
Other	33 (8.3%)	
Ongoing same-sex relationship		
No	83 (20.9%)	
Yes	314 (79.1%)	
Masculinity/femininity		1.7 (1.00)
Gender identity		
Cis-gender	314 (79.9%)	
Transgender	79 (20.1%)	
Sexual attraction		
Men only	186 (47.1%)	
Men and women	209 (52.9%)	
Sexual identity		
Gay	248 (62.5%)	
Bisexual and other	149 (37.5%)	
Negative feelings about homosexuality		2.0 (0.60)
Concealment of homosexuality		2.2 (1.20)
Homophobic experiences		0.8 (1.00)
No gay community to rely on		2.4 (0.80)
Social support		3.4 (1.20)
HIV status		
Negative	325 (82.1%)	
Positive	71 (17.9%)	
Child sexual abuse		
Yes	83 (21.0%)	
No	313 (79.0%)	
Ever forced sex		
Yes	106 (26.8%)	
No	290 (73.2%)	
Ever transactional sex		
Yes	123 (31.3%)	
No	270 (68.7%)	
Recreational drug use		1.5 (1.00)
Alcohol drinking		
Low risk	187 (47.7%)	
Moderate risk	83 (21.2%)	
High risk	75 (19.1%)	
Severe risk	47 (12.0%)	
Depression		
None	204 (52.2%)	
Mild	124 (31.7%)	
Moderate	42 (10.7%)	
Moderately severe & severe	21 (5.4%)	

Abbreviations: N: total number; sd: standard deviation.
Note: Total values do not always add to 397 due to missing values.

homosexuality (OR = 1.29, 95% CI = 1.08, 1.52) (these are increased odds per one-point increase on the scale). In addition, the odds of healthcare-related stigma were higher if participants engaged in alcohol drinking compared to participants who had low-risk alcohol drinking (high risk: OR = 2.18, 95% CI = 1.26, 3.75; severe risk: OR = 1.94, 95% CI = 1.02, 3.71) and if participants experienced mild or moderate depression versus no depression (mild: OR = 1.94, 95% CI = 1.23, 3.05; moderate: OR = 3.92, 95% CI = 1.92, 8.00).

Multivariable analysis

Compared to Kisumu, Kenya, adjusted odds of reporting any healthcare-related stigma was greater for participants in Soweto (adjusted odds ratio (AOR) = 2.60, 95% CI = 1.30, 5.19) and less for Blantyre (AOR = 0.27, 95% CI = 0.13, 0.54) (Table 2). The AOR of healthcare-related stigma was greater for participants who more strongly felt that they did not have a supportive gay community to rely on (AOR = 1.46, 95% CI = 1.09, 1.95) and smaller for participants who never engaged in transactional sex compared to those who said they did (AOR = 0.43, 95% CI = 0.26, 0.72) and the more social support they experienced (AOR = 0.76 per one-point increase on the scale, 95% CI = 0.61, 0.95).

Discussion

The literature on TGW and HIV is sparse, thus most of our discussion focuses on the MSM literature. Nearly half of all MSM and TGW in our study reported at least one healthcare-related stigma experience. Healthcare-related stigma experiences occurred with various frequencies. The most frequently reported experience was feeling afraid to seek healthcare services. This is similar to what (Baral et al., (2013) found among MSM in Lesotho and was attributed to previous negative experiences such as hearing healthcare providers gossiping. Another frequently reported experience in our analysis was avoiding seeking healthcare services because of worries that someone might discover one's sexual involvement with men. In a Swaziland-based study, the same fear was reported among MSM and in addition,

Table 2. Factors associated with reported health care-related stigma among men who have sex with men and transgender women participating in HPTN 075 study in Kenya, Malawi, and South Africa, 2016–2017.

	Any health care-related stigma *n/N* (%)/*M* (sd)		Bivariate			Multivariable[a]		
	Yes (*n* = 180)	No (*n* = 217)	OR	95% CI	*p*-value	AOR	95% CI	*p*-value
Study site								
Kisumu, Kenya	45/100 (45.0%)	55/100 (55.0%)	REF			REF		
Blantyre, Malawi	20/98 (20.4%)	78/98 (79.6%)	0.31	0.17, 0.59	<0.001	0.27	0.13, 0.54	<0.001
Cape Town, South Africa	51/99 (51.5%)	48/99 (48.5%)	1.30	0.74, 2.27	0.358	1.68	0.86, 3.29	0.128
Soweto, South Africa	64/100 (64.0%)	36/100 (36.0%)	2.17	1.23, 3.83	0.007	2.60	1.30, 5.19	0.007
Age	24.06 (5.70)	24.46 (5.32)	0.99	0.95, 1.02	0.463			
Education								
Low (less than grade 12)	65/141 (46.1%)	76/141 (53.9%)	REF					
Middle (grade 12)	78/168 (46.4%)	90/168 (53.6%)	1.01	0.65, 1.59	0.954			
High (beyond secondary school)	34/84 (40.5%)	50/84 (59.5%)	0.80	0.46, 1.37	0.411			
Employment status								
Full or part time employed	50/118 (42.4%)	68/118 (57.6%)	REF					
Self-employed	20/56 (35.7%)	36/56 (64.3%)	0.76	0.39, 1.46	0.403			
Unemployed	49/110 (44.5%)	61/110 (55.5%)	1.09	0.65, 1.85	0.741			
Student	55/101 (54.5%)	46/101 (45.5%)	1.63	0.95, 2.78	0.075			
Other	6/12 (50.0%)	6/12 (50.0%)	1.36	0.41, 4.47	0.612			
Income								
No income	41/84 (48.8%)	43/84 (51.2%)	REF					
≤50 percentile	42/101 (41.6%)	59/101 (58.4%)	0.75	0.42, 1.34	0.326			
>50 percentile	70/162 (43.2%)	92/162 (56.8%)	0.80	0.47, 1.35	0.403			
No answer	27/50 (54.0%)	23/50 (46.0%)	1.23	0.61, 2.48	0.561			
Marital status								
Not married	169/369 (45.8%)	200/369 (54.2%)	REF					
Married/legal partnership	11/28 (39.3%)	17/28 (60.7%)	0.77	0.35, 1.68	0.505			
Living arrangement								
Independent	42/84 (50.0%)	42/84 (50.0%)	REF					
With partner	16/35 (45.7%)	19/35 (54.3%)	0.84	0.38, 1.86	0.670			
With relatives (including parents)	106/245 (43.3%)	139/245 (56.7%)	0.76	0.46, 1.25	0.285			
Other	16/33 (48.5%)	17/33 (51.5%)	0.94	0.42, 2.11	0.883			
Ongoing same-sex relationship								
No	45/83 (54.2%)	38/83 (45.8%)	REF					
Yes	135/314 (43.0%)	179/314 (57.0%)	0.64	0.39, 1.04	0.069			
Masculinity/femininity	1.74 (0.96)	1.58 (0.90)	1.19	0.96, 1.47	0.117			
Gender identity								
Cis-gender	146/314 (46.5%)	168/314 (53.5%)	REF					
Transgender	33/79 (41.8%)	46/79 (58.2%)	0.83	0.50, 1.36	0.451			
Sexual attraction								
Men only	102/186 (54.8%)	84/186 (45.2%)	REF			REF		
Men and women	77/209 (36.8%)	132/209 (63.2%)	0.48	0.32, 0.72	<0.001	0.64	0.36, 1.06	0.084
Sexual identity								
Gay	119/248 (48.0%)	129/248 (52.0%)	REF					
Bisexual and other	61/149 (40.9%)	88/149 (59.1%)	0.75	0.50, 1.13	0.173			
Negative feelings about homosexuality	1.96 (0.56)	2.00 (0.54)	0.89	0.62, 1.27	0.521			
Concealment of homosexuality	2.36 (1.20)	2.02 (1.16)	1.29	1.08, 1.52	0.004			
Homophobic experiences	1.10 (1.26)	0.50 (0.80)	1.76	1.42, 2.18	<0.001			
No gay community to rely on	2.52 (0.80)	2.36 (0.74)	1.32	1.01, 1.71	0.040	1.46	1.09, 1.95	0.011
Social support	3.36 (1.06)	3.42 (1.16)	0.96	0.80, 1.15	0.645	0.76	0.61, 0.95	0.016
HIV status								
Negative	143/325 (44.0%)	182/325 (56.0%)	REF					
Positive	37/71 (52.1%)	34/71 (47.9%)	1.39	0.83, 2.32	0.215			
Child sexual abuse								
Yes	41/83 (49.4%)	42/83 (50.6%)	REF					
No	138/313 (44.1%)	175/313 (55.9%)	0.81	0.50, 1.31	0.388			
Ever forced sex								
Yes	63/106 (59.4%)	43/106 (40.6%)	REF					
No	116/290 (40.0%)	174/290 (60.0%)	0.46	0.29, 0.72	<0.001			
Ever transactional sex								
Yes	69/123 (56.1%)	54/123 (43.9%)	REF			REF		
No	108/270 (40.0%)	162/270 (60.0%)	0.52	0.34, 0.80	0.003	0.43	0.26, 0.72	0.001
Recreational drug use	1.48 (1.04)	1.46 (1.02)	1.01	0.83, 1.23	0.908			
Alcohol drinking								
Low risk	69/187 (36.9%)	118/187 (63.1%)	REF					
Moderate risk	41/83 (49.4%)	42/83 (50.6%)	1.67	0.99, 2.82	0.055			
High risk	42/75 (56.0%)	33/75 (44.0%)	2.18	1.26, 3.75	0.005			
Severe risk	25/47 (53.2%)	22/47 (46.8%)	1.94	1.02, 3.71	0.044			
Depression								
None	74/204 (36.3%)	130/204 (63.7%)	REF					

(*Continued*)

Table 2. Continued.

	Any health care-related stigma *n*/*N* (%)/*M* (sd)		Bivariate			Multivariable[a]		
	Yes (*n* = 180)	No (*n* = 217)	OR	95% CI	*p*-value	AOR	95% CI	*p*-value
Mild	65/124 (52.4%)	59/124 (47.6%)	1.94	1.23, 3.05	0.004			
Moderate	29/42 (69.0%)	13/42 (31.0%)	3.92	1.92, 8.00	<0.001			
Moderately severe & severe	10/21 (47.6%)	11/21 (52.4%)	1.60	0.65, 3.94	0.309			

[a] Stepwise logistic regression with selection of variables at entry significance level of 0.1 and exit significance level of 0.1.
Abbreviations: *n*: number with characteristic; *N*: total number; M: mean; sd: standard deviation; OR: odds ratio; CI: confidence intervals; AOR: adjusted odds ratio; REF: reference group.
Note: Totals do not always add to 397 due to missing values.

the study found that actual stigma experiences were reported less frequently than perceived or expected stigma experiences (Risher et al., 2013). In a study of healthcare stigma among MSM in Burkina Faso, prevalence of experienced stigma was also low (Kim et al., 2018).

In multivariable analysis, several factors were independently associated with healthcare-related stigma. Compared to Kisumu, participants in Soweto, South Africa were more likely to report any healthcare-related stigma and participants in Blantyre, Malawi were less likely to do so. The reasons for these differences are not clear, especially because sexual orientation is protected in the South African Constitution (Hagopian et al., 2017); further research is needed to understand differences between countries. MSM and TGW who more strongly felt that they did not have a gay community to rely on were also more likely to report any healthcare-related stigma experience. Perceptions of personal stigma have been associated with rejection experiences (Hunter et al., 2017). In our analysis, MSM and TGW who reported engagement in transactional sex were more likely to report healthcare-related stigma. Biello et al. (2016) who surveyed Latin American MSM, similarly found that engagement in transactional sex was associated with less receipt of medical care for HIV. Stigma from being involved in transactional sex may add to the stigma associated with homosexual orientation. Moreover, stigma from being involved in transactional sex has been reported as a barrier to health care among sex workers in Russia (King et al., 2013). Finally, an important finding was that healthcare-related stigma experiences were associated with the lack of social support. Social support is associated with better sleep, higher self-esteem, and lower depression and anxiety, whereas perceived stigma is associated with poorer sleep, lower self-esteem, and higher depression and anxiety (Birtel et al., 2017). Being mentally healthy allows one to better cope with real and perceived adversities (Mishara, 2006).

The finding that healthcare-related stigma was not associated with any of the demographic characteristics of our participants strongly points at the structural character of this stigma: healthcare-related stigma affects MSM and TGW regardless of other aspects of their social status.

Our findings should be considered in the context of several limitations. First, this was an exploratory study, not driven by specific testable hypotheses, hence the use of the stepwise regression for the multivariable analysis; moving forward, research into healthcare-related stigma would profit from a theoretically driven approach. Second, we did not assess to what extent our participants were open about their homosexuality with healthcare providers. It could be that MSM and TGW do not experience any concrete discrimination in health care as long as they do not disclose, although this could imply not receiving the specialized care they might need. Healthcare-related stigma might also vary in relation to type of clinic and training received by healthcare staff. Third, our cross-sectional data collection and analysis does not allow us to determine the direction of the observed associations. Fourth, because little is known about TGW and HIV-related attitudes and behaviors, comparisons were limited to the MSM literature. Finally, we did not use a probabilistic sampling technique due to our target population being either hidden or hard to reach; thus, it is not clear to what extent our findings are generalizable to MSM and TGW in sub-Saharan Africa. It is important to note that other groups, such as adolescents and commercial sex workers, can experience stigma when accessing public sector health services. It may be relevant to look at all of these groups at high risk for HIV in a more comprehensive way in order to develop service delivery systems that are inclusive and free of stigma and discrimination.

In conclusion, nearly half of MSM and TGW enrolled in the HPTN 075 study experienced healthcare-related stigma. Stigma and discrimination towards MSM and TGW have been demonstrated to create barriers to accessing and remaining in care (Baral et al., 2015; Crowell et al., 2017; Fay et al., 2011; Lane et al., 2008). Healthcare-related stigma not only involves avoidance of healthcare services, but also discomfort and stress

which adversely affects health (Hatzenbuehler et al., 2013). These populations are also at increased risk for mental health conditions (Meyer, 2003), which likely promote behaviors that put them at greater risk for these infections (Blank et al., 2002).

Our findings have important implications for clinical and public health practice and future research. Future research might clarify how MSM and TGW manage their sexual and gender minority status while seeking health care, especially when their healthcare needs are associated with this status. A more in-depth understanding of healthcare providers' knowledge, attitudes and skills related to providing care to MSM and TGW could help designing effective interventions.

As suggested by discussions regarding HIV stigma in healthcare settings (Nyblade et al., 2009), interventions to promote access to care for MSM and TWG will have to focus on the individual, environmental, and policy levels. It will be important to provide safe and confidential facilities to offer appropriate and knowledgeable health services and health education and promotion to MSM and TGW. Training and sensitization of public healthcare providers seems a necessary first step to improving the health of MSM and TGW in sub-Saharan Africa. In this regard, an online MSM education program for healthcare providers, MSM-Appropriate Services and Training (MAST) program, has been implemented in some settings and positively evaluated (www.marps-africa.org) (van der Elst et al., 2013). There is also a webinar to assist healthcare providers in caring for transgender people (Radix et al., 2018). Educating the wider community, including law enforcement and local businesses, will be important as well. It seems critical to connect MSM and TGW to support groups when needed, to increase their social support, and to scale up community engagement of the MSM and TGW populations to help them feel comfortable in seeking healthcare services.

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Disclosure statement

No potential conflict of interest was reported by the author(s).

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