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Out of the Closet, Into the Clinic: Opportunities for Expanding MSM-Competent Services in China

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Abstract

Background—Despite the high HIV burden among men who have sex with men (MSM), there is little research on health services provided to MSM in China and other low- and middle-income countries. Discrimination and inadequate services may discourage MSM from seeking healthcare services. This study examined essential services provided to MSM and healthcare discrimination among MSM in China.

Methods—A nationwide cross-sectional online survey was conducted among MSM who saw a physician in the last 24 months in China. The survey included items on sociodemographic information, HIV testing, experiences from the last physician encounter, and history of perceived healthcare discrimination. We defined MSM-competent physicians as physicians who asked their patient about having sex with other men, asked about anal sex, and either asked about or recommended HIV testing at the most recent visit.

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Results—Among the 503 participants, 35.0% (176/503) saw an MSM-competent physician. In multivariate analyses, respondents who saw an MSM-competent physician were more likely to be younger (AOR, 0.87; CI, 0.81–0.94), have a primary care physician (AOR, 3.24; CI, 1.85–5.67), and be living with HIV (AOR, 2.01; CI, 1.13–3.56). 61.2% (308/503) of MSM had ever experienced healthcare discrimination.

Conclusions—Our data suggest that there is variability in the extent to which physicians are meeting the needs of MSM in China. There is an urgent need to evaluate and expand MSM-competent services in China.

Keywords

Access to care; Clinical Care; HIV/AIDS; Men Who Have Sex with Men (MSM)

Introduction

Human Immunodeficiency Virus (HIV) services, especially services for key populations, have substantially decentralized in the past five years. Many men who have sex with men (MSM) can receive HIV testing at a wide range of sites.(1) While some aspects of decentralization are simple, configuring many diverse services to be responsive to the unique needs and preferences of young MSM will likely be challenging. This situation has contributed to MSM having difficulty finding local physicians who deliver MSM-competent services, defined as services meeting evidence-based standards for serving MSM.(2) Yet all MSM need MSM-competent physicians who can sensitively elicit sexual histories, tactfully safeguard dignity, and provide evidence-based care.(1, 2) MSM-competent services have been associated with sexual orientation disclosure, greater HIV testing, and antiretroviral adherence and retention within the HIV care continuum.(3, 4) The difficulty that MSM face in finding local physicians likely contributes to the substantial MSM disparities in HIV outcomes and overall mortality.(5, 6)

MSM in China have a high burden of HIV. HIV prevalence among MSM in China has increased from 6.0% in 2010 to 8.0% in 2015.(7) HIV incidence among Chinese MSM was 8.9/100 person-years in a recent study.(8) Although free HIV testing is provided in many government and community-based settings in China, MSM still have suboptimal HIV testing and delayed antiretroviral therapy (ART) initiation.(9) Persistent discrimination against MSM make it challenging to reach and engage MSM in China.(10, 11) Few MSM regularly disclose their sexual orientation to physicians (12). Expanded MSM-competent services are needed in China.

The integration of HIV and primary care services has been shown to enhance MSM-competent services in high-income countries(13), but China and many low- and middle-income countries (LMICs) have less well developed primary care.(14) Although the Chinese government has been working since 2006 to reinstate a strong primary care system in China, the utilization of primary care services by Chinese people remains poor.(15–17) The first point of contact for most people with illness is still tertiary care centers that have few primary care physicians (PCPs).(15) Health reform has gradually expanded the system of

primary care in China over the last decade, providing an opportunity for enhancing MSM-competent care.(18)

Few studies have evaluated MSM-competent services outside high-income countries.(19, 20) The limited research on MSM services in low- and middle-income countries focuses on physician self-report and administrative data.(21) Moreover, qualitative research among MSM suggests that many physicians discriminate against MSM and perceived discrimination can deter MSM from seeking or continuing care.(22) The purpose of this study was to evaluate MSM-competent services and determine the frequency of healthcare discrimination among a nationwide online sample of young MSM in China.

Materials and Methods

Study design and sampling methods

We conducted a national, cross-sectional online survey from May 27 through May 30, 2017. The survey was closed when the necessary sample size was reached. We recruited men using two large gay websites and an HIV organization's WeChat account. WeChat, a free multi-functional social media platform based in China, reported 938 million monthly active users as of May 2017 (16). The entire survey instrument was field tested among 20 MSM, and feedback was incorporated into the finalized survey instrument. The link to the survey was first listed at the end of an HIV-related article posted on Blued's WeChat platform. Blued is the world's largest sex-seeking gay app. As of 2016, 27 million MSM have used Blued. Next, a short advertisement about the online survey was posted on the HIV organization's official WeChat account and then shared on the official WeChat account of an MSM organization headquartered in Qingdao, a city in China's eastern Shandong Province. This MSM organization provides health counseling, outreach, education, and online support for MSM and people living with HIV. This organization typically posts online articles about MSM in order to attract readers. We chose an HIV-related article because we wanted to recruit MSM at risk for and living with HIV. Recruitment was tracked using Sojump, an online questionnaire management software, and stopped on May 30th after the pre-specified sample of 500 was reached. Assuming 60% of MSM who saw an MSM-competent doctor have a PCP and 40% of MSM who saw an MSM-competent doctor do not have a PCP, a sample size of 500 allows for detection of a statistically significant difference between these two groups with 95% confidence. The values of 60% and 40% were chosen based on data from field testing.

Eligible participants were born biologically male, 16–30 years old, had ever engaged in anal or oral sex with another man, and had seen a physician in the last 24 months. Participants read a consent form and selected 'agree' to acknowledge understanding and willingness to participate in the survey. Eligible participants received a small (~\$7.50 USD) phone credit for participating.

Measures

The online survey was anonymous and measured sociodemographic information, HIV testing, recent experiences seeing a physician, and lifetime experiences of healthcare

discrimination. Most survey items were from a population-based survey of sexual behaviors in China (23). Sociodemographic information included age (as a continuous variable), geographical location (city and province), residence (urban or rural), migrant status (migrant or local resident), occupation, marital status, education level (high school or below, some college, college and above), annual income (less than or equal to 5400 USD, 5401–9000 USD, greater than 9000 USD), and ethnic affiliation. For reference, the average household net income in 2012 in China was approximately 7000 USD.(24) Participants' province of origin was categorized based on eight geographical regions in China: eastern, southern, central, northern, northwestern, northeastern, southwestern, and other (Taiwan, Hong Kong, and Macau). Participants were asked whether they currently have a PCP. We defined a PCP as a community level, non-specialist physician who men trusted and saw on a regular basis. (25) Participants were asked to report their self-identified sexual orientation (gay, bisexual, heterosexual, or unsure/other) and their current self-identified gender (man, woman, transgender, or unsure/other). For self-identified gender, we combined the categories of women and male-to-female transgender.(12) Participants were asked if they had ever tested for HIV. Among those who tested for HIV infection, participants were asked their most recent HIV test result. The full survey instrument is included as supplemental material.

More detailed information was collected on the last physician visit. Men were asked about whether the physician asked about the following: having sex with other men (yes or no), anal sex (yes or no), condom use (yes or no), HIV testing (yes or no), and recommended HIV testing (yes or no). MSM-competent physicians were defined as physicians who asked about having sex with other men, asked about anal sex, and either asked about or recommended HIV testing. This operational definition was based on MSM evidence-based guidelines from the US CDC,(26) the WHO,(1) and the Fenway Institute.(2)

Physician discrimination against MSM was examined using nine survey items (Table 2) that were adapted from existing survey instruments.(18, 27, 28) These survey items were used among young MSM in other settings (27, 28) and young sexual minorities.(18) Men responded to each of the nine items and then we dichotomized the variable to denote whether the man had experienced any healthcare discrimination in their lifetime.

Statistical analysis

For the descriptive analyses, we stratified the sociodemographic and health seeking behaviors by whether man reported last seeing an MSM-competent physician. We also performed T-tests (for means) and Chi-square tests to evaluate whether the two groups were different. We further evaluated the factors associated with seeing an MSM-competent physician by conducting a bivariate logistic regression analysis (odds ratio, 95% confidence intervals). Finally, we performed multivariable analyses to obtain the adjusted association between different variables and seeing an MSM-competent physician. Variables with P values of less than 0.2 in the bivariate models were included in the final multivariate analysis.(29) All data analyses were completed using IBM SPSS Statistics 19 (IBM, Armonk, NY, USA). We used similar methods to evaluate factors correlated with reported lifetime experiences of healthcare discrimination. Specifically, we conducted bivariate

logistic regressions and multivariable logistic regressions, and variables with P values of less than 0.2 in the bivariate models were included in the multivariate regression models.

Ethical statement

Ethical approval was obtained from the ethics review committees at the Guangdong Provincial Center for Skin Diseases and STI Control (Guangzhou, China) and the University of North Carolina at Chapel Hill (North Carolina, USA).

Results

Of 1689 people who clicked on the survey link, 1084 were determined ineligible. Approximately half of those ineligible were excluded because they had not seen a physician in the last 24 months. Of the 605 eligible respondents, 503 completed the survey, yielding a completion rate of 83.1%.

Demographic characteristics of total MSM participants

Table 1 shows the total demographic characteristics of the sample. Overall, the average age of participants was 23.9 ± 3.5 years old. 93.2% (n=469) identified as men, 5.4% (n=27) identified as male-to-female transgender, and 1.4% (n=7) identified as unsure/other. In terms of sexual orientation, 83.5% (n=420) self-identified as gay, 11.9% (n=60) self-identified as bisexual and 4.6% (n=23) self-identified as either heterosexual or unsure/other. Most respondents had never been married (94.4%, n=475). Most participants were Han Chinese (94.2%, n=474), and the survey included men from every province in China except Tibet. Participants were from, in descending order of frequency: eastern China (33.2%, n=167), southern China (19.1%, n=96), northern China (14.9%, n=75), southwestern China (12.1%, n=61), central China (10.5%, n=53), northeastern China (6.2%, n=31), northwestern China (3.6%, n=18), and other (0.4%, n=2). Most respondents lived in urban areas (85.9%, n=432), and about half (50.1%, n=252) were migrants. Most participants were employed (57.1%, n=287), and about one-third (34.4%, n=173) were students. Annual income distribution among participants was 45.1% (n=227), 34.4% (n=173), and 20.5% (n=103) earning 5400 USD, 5401–9000 USD, >9000 USD, respectively. Overall, 14.3% (n=72) of participants had never been tested for HIV. Among those tested, HIV prevalence was approximately 14.5% (n=73). 14.7% (n=74) of participants had an established PCP.

Comparison of sociodemographics between MSM who saw an MSM-competent physician and MSM who did not

Table 2 shows the comparison of sociodemographics between MSM who saw an MSM-competent physician and MSM who did not. The average age of MSM who saw an MSM-competent physician at their last visit was $23.2 (\pm 3.4)$ versus $24.3 (\pm 3.6)$ for MSM who did not see an MSM-competent physician ($P < 0.001$, table 2). Southwestern China had the highest proportion of respondents who saw an MSM-competent physician (52.5%, n=32), followed by northwestern China (38.9%, n=7), southern China (38.5%, n=37), northern China (34.7%, n=26), eastern China (31.7%, n=53), central China (28.3%, n=15), and northeastern China (19.4%, n=6) (P for group difference=0.034). In terms of HIV status, 54.8% (n=40) of participants living with HIV saw an MSM-competent physician at their last

visit while 66% (n=231) of participants with HIV did not see an MSM-competent physician at their last visit ($P<0.001$). Regarding primary care, 59.5% (n=44) of participants who reported having a PCP saw an MSM-competent physician at their last visit while 30.8% (n=132) of participants without a PCP saw an MSM-competent physician at their last visit ($P<0.001$).

Factors associated with seeing an MSM-competent physician

Correlates of seeing an MSM-competent physician are presented in Table 3. Overall, 35.0% (n=176) of men saw an MSM-competent physician at their last visit. MSM who saw an MSM-competent physician at their last visit were more likely to be younger (adjusted odds ratio [AOR], 0.87; 95% confidence interval [CI], 0.81–0.94) and have a PCP (AOR, 3.24; 95% CI, 1.85–5.67). Those who were living with HIV were more likely than others to report seeing an MSM-competent physician at their last visit (AOR, 2.01; 95% CI, 1.13–3.56). In the crude model, people living in southwestern China had an increased odds of seeing an MSM-competent physician at their last visit compared to other regions (crude odds ratio [OR], 2.37; 95% CI, 1.30–4.32). No association was detected between self-identified gender, sexual orientation, residency, migrant status, occupation, marital status, education, annual income, or ethnic affiliation.

Factors associated with healthcare discrimination

Table 4 displays frequencies of experiences of perceived discrimination by physicians among the entire survey population. 61.2% (n=308) of participants reported ever experiencing perceived discrimination by a physician. Overall, 40% (n=199) of participants reported having ever refrained from a necessary examination or treatment because they were afraid of being discriminated against because of their sexual orientation. 37.2% (n=187) of participants reported having felt that their physician should know about their sexual orientation prior to an examination or treatment, but did not disclose it for fear of negative consequences. 30% (n=151) of respondents had perceived that their physician was uncomfortable discussing sexuality or sexual history. Another 20.7% (n=104) of respondents reported having felt discriminated against by physicians because of their sexual orientation. We analyzed correlates of healthcare discrimination in a multivariate analysis and found that no correlates were associated (Supplemental Table 1).

Discussion

In this study, we evaluated several elements of MSM-competent services among an online, cross-sectional sample of MSM in China. We found that approximately one-third of men saw an MSM-competent physician at their last physician visit. Men with a PCP were more likely to report seeing an MSM-competent physician. This study expands the literature by asking about three important aspects of MSM-competent services, evaluating MSM-competent services in a middle-income context, and reporting frequencies of MSM experiences of healthcare discrimination in China.

We found only one-half of respondents reported being recommended HIV testing at their last physician visit. This level of HIV test offer likely represents an improvement from a

2012 study among patients seen by STI providers in China.(21) Among men who are not living with HIV in our study, over one-third were recommended HIV testing at their last physician visit. This proportion of HIV test offer is higher than reported in a 2009 study among non-HIV infected MSM in the United States.(13)

We found that men with PCPs were more likely to receive MSM-competent care. This is consistent with data from Australia and United States.(13, 30) We were not able to identify similar data on the frequency of MSM-competent services in China. PCPs may be more competent in managing MSM health themselves or could facilitate referral to HIV or sexually transmitted infection (STI) specialists. Although there has been a growing primary care movement in China in the last decade, most people see specialists first and primary care services are underutilized.(16, 17) All physicians need to have the skills, knowledge, and experience to serve MSM in the clinic, but this need is particularly prominent in infectious diseases and primary care settings where MSM represent a larger portion of patients seen.

We found substantial discrimination experienced by MSM in healthcare settings. Nearly two-thirds of participants experienced some form of lifetime healthcare discrimination. Men in our sample reported being ignored, mistreated, and refused healthcare by physicians at rates similar to two studies in the United States.(27, 28) Rates of refraining from an examination or treatment or disclosure of sexual orientation for fear of discrimination were higher than among sexual minorities in Germany.(18) Homophobic attitudes among physicians are common and may prevent MSM from seeking the health services.(31, 32) Training and related interventions for physicians may help to decrease MSM healthcare discrimination.(33)

Our data have implications for research and policy. From a research perspective, additional studies are needed to evaluate the extent to which physicians provide MSM-competent services. Earlier research has used administrative data to understand the quality of physician sexual health services in China.(21) MSM-focused evaluation of physician services through online platforms may be another option, given the high rates of internet use among MSM in China.(34) From a policy perspective, more detailed guidelines for serving MSM in China may be useful for clinicians. Although global WHO guidelines exist,(1, 35) these have not been adapted or widely implemented in China.

Our study has several limitations. First, our definition of MSM competence was relatively narrow and did not incorporate all of the needs of MSM. Second, this is a cross-sectional study and no causal relationships can be inferred. We recruited a young, online sample of mostly urban MSM who may be different from the general MSM population.(36) Third, we only asked about MSM-competent services at the last physician visit. Fourth, our measures of healthcare discrimination evaluated lifetime experiences, introducing the possibility of recall bias. However, similar measures have been used in other contexts.(37) Fifth, discrimination survey items and a few other items were not validated in China. At the same time, we did adapt them based on field testing and this preliminary data is important for subsequent behavioral research on this topic.

Despite these limitations, this study provides important information for further research and suggests that there is an urgent need to continue to evaluate and expand MSM-competent services in China. Our data suggest that there are already a subset of MSM-competent physicians, laying the foundation for subsequent MSM service improvements.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Demographic Characteristics of the Survey Participants in China, 2017 (N = 503)

Characteristics	n	Percent
Age, y		
16–20	102	20.3
21–25	223	44.3
26–30	178	35.4
Education		
High school and below	134	26.6
Some college	141	28
College and above	228	45.3
Marital status		
Never married	475	94.4
Engaged or ever married	28	5.6
Residency		
Rural	71	14.1
Urban	432	85.9
Annual income (USD)		
5,400	227	45.1
5,401–9,000	173	34.4
>9,000	103	20.5
Sexual orientation		
Gay	420	83.5
Bisexual	60	11.9
Heterosexual and Others *	23	4.6
Currently has a primary care doctor		
Yes	74	14.7
No	429	85.3
Currently interested in establishing a PCP		
Yes	323	64.2
No	106	21.1
HIV positive		
Yes	73	14.5
No	350	69.6
Never got test results	8	1.6
Never been tested	72	14.3

* This includes individuals who identify as heterosexual and those unsure of their sexual orientation.

Comparison of Sociodemographics Between MSM Who Saw an MSM-Competent Doctor and MSM Who Did Not in China, 2017 (N=503)

Table 2

	Overall (n=503), n(%)	Saw an MSM-competent doctor (n=176), n(%)	Did not see an MSM competent doctor (n=327), n(%)	P
Sociodemographics				
Age (mean, SD)	23.92, 3.54	23.22, 3.39	24.29, 3.56	0.001
Self-identified gender				0.28
Man	469 (93.2)	167 (35.6)	302 (64.4)	
Trans/Woman	27 (5.4)	6 (22.2)	21 (77.8)	
Unsure/other	7 (1.4)	3 (42.9)	4 (57.1)	
Sexual orientation ¹				0.51
Gay	420 (83.5)	151 (36)	269 (64)	
Bisexual	60 (11.9)	17 (28.3)	43 (71.7)	
Heterosexual or others ¹	23 (4.6)	8 (34.8)	15 (65.2)	
Location by Chinese region				0.034
Eastern	167 (33.2)	53 (31.7)	114 (68.3)	
Southern	96 (19.1)	37 (38.5)	59 (61.5)	
Central	53 (10.5)	15 (28.3)	38 (71.7)	
Northern	75 (14.9)	26 (34.7)	49 (65.3)	
Northwestern	18 (3.6)	7 (38.9)	11 (61.1)	
Southwestern	61 (12.1)	32 (52.5)	29 (47.5)	
Northeastern	31 (6.2)	6 (19.4)	25 (80.6)	
Taiwan, Hong Kong, Macau	2 (0.4)	0 (0)	2 (100)	
Residency				0.88
Urban	432 (85.9)	150 (34.7)	282 (65.3)	
Rural	71 (14.1)	26 (36.6)	45 (63.4)	
Migrant status				0.74
Local	251 (49.9)	87 (34.7)	164 (65.3)	
Migrant	252 (50.1)	89 (35.3)	163 (64.7)	
Occupation				0.14
Student	173 (34.4)	62 (35.8)	111 (64.2)	
Employed	287 (57.1)	103 (35.9)	184 (64.1)	

	Overall (n=503, n(%))	Saw an MSM-competent doctor (n=176, n(%))	Did not see an MSM competent doctor (n=327, n(%))	P
Sex worker	2 (0.4)	2 (100)	0 (0)	
Unemployed	12 (2.4)	3 (25)	9 (75)	
Other	29 (5.8)	6 (20.7)	23 (79.3)	
Marital status				0.46
Never married	475 (94.4)	168 (35.4)	307 (64.6)	
Engaged or ever married	28 (5.6)	8 (28.6)	20 (71.4)	
Education				0.35
High school or below	134 (26.6)	53 (39.6)	81 (60.4)	
Some college	141 (28)	50 (35.5)	91 (64.5)	
College and above	228 (45.3)	73 (32)	155 (68)	
Annual Income (USD)				0.23
5,400	227 (45.1)	86 (37.9)	141 (62.1)	
5,401–9,000	173 (34.4)	61 (35.3)	112 (64.7)	
>9,000	103 (20.5)	29 (28.2)	74 (71.8)	
Ethnic affiliation				0.95
Han	474 (94.2)	166 (35)	308 (65)	
Non-Han	29 (5.8)	10 (34.5)	19 (65.5)	
HIV status ²				<0.001
HIV positive	73 (14.5)	40 (54.8)	33 (45.2)	
HIV negative	350 (69.6)	119 (34.0)	231 (66)	
Never got test results	8 (1.6)	5 (62.5)	3 (37.5)	
Never been tested	72 (14.3)	12 (16.7)	60 (83.3)	
Health Seeking Behaviors				
Have a primary care physician				<0.001
Yes	74 (14.7)	44 (59.5)	30 (40.5)	
No	429 (85.3)	132 (30.8)	297 (69.2)	

¹This includes individuals who identify as heterosexual and those unsure of their sexual orientation.

²Satisfying the MSM-competent doctor requirement of asking about or recommending HIV testing has a different meaning for PLWHA versus non-PLWHA: an MSM-competent doctor would still recommend HIV testing to PLWHA, but the test would likely be either a viral load measurement or CD4 count. The type of testing recommended by an MSM-competent doctor seeing non-PLWHA would likely be an ELISA test.

Table 3

Factors Associated with MSM Who Saw an MSM-Competent Doctor in China, 2017 (N=503)

	Crude OR (95% CI)	AOR (95% CI)
Sociodemographics		
Age (mean, SD)	0.92 (0.87–0.97)	0.87 (0.81–0.94)
Self-identified gender		
Man	1	
Trans/Woman	0.52 (0.21–1.31)	
Unsure/other	1.36 (0.30–6.12)	
Sexual orientation		
Gay	1	
Bisexual	1.05 (0.44–2.54)	
Heterosexual and others *	0.74 (0.27–2.07)	
Location by Chinese region		
Eastern	1	1
Southern	1.35 (0.80–2.28)	1.25 (0.71–2.21)
Central	0.85 (0.43–1.68)	0.59 (0.29–1.23)
Northern	1.14 (0.64–2.03)	1.21 (0.66–2.24)
Northwestern	1.37 (0.50–3.73)	1.09 (0.38–3.16)
Southwestern	2.37 (1.30–4.32)	1.79 (0.92–3.45)
Northeastern	0.52 (0.20–1.33)	0.5 (0.19–1.36)
Taiwan, Hong Kong, Macau	0 (0)	0 (0)
Residency		
Urban	1	
Rural	1.09 (0.65–1.83)	
Migrant status		
Local	1	
Migrant	1.03 (0.71–1.49)	
Occupation		
Student	1	1
Employed	1 (0.67–1.49)	1.43 (0.84–2.44)
Sex worker	0 (0)	3292724560 (0)
Unemployed	0.6 (0.16–2.29)	0.55 (0.13–2.36)
Other	0.47 (0.18–1.21)	0.63 (0.23–1.76)
Marital status		
Never married	1	
Engaged or ever married	0.73 (0.32–1.70)	
Education		
High school or below	1	
Some college	0.84 (0.52–1.37)	
College and above	0.72 (0.46–1.12)	
Annual Income (USD)		

	Crude OR (95% CI)	AOR (95% CI)
5,400	1	
5,401–9,000	0.89 (0.59–1.35)	
>9,000	0.64 (0.39–1.07)	
Ethnic affiliation		
Han	1	
Non-Han	0.98 (0.44–2.15)	
HIV status		
HIV positive	2.35 (1.41–3.92)	2.01 (1.13–3.56)
HIV negative	1	1
Never got test results	3.24 (0.76–13.77)	1.37 (0.29–6.37)
Never been tested	0.39 (0.20–0.75)	0.4 (0.20–0.79)
Health Seeking Behaviors		
Have a primary care physician		
Yes	3.3 (1.99–5.48)	3.24 (1.85–5.67)
No	1	1

* This includes individuals who identify as heterosexual and those unsure of their sexual orientation.

Table 4

Experiences of Discrimination by Physicians Among Young MSM in China, 2017 (N = 503)

	Yes N (%)	No N (%)	Not sure N (%)
Statement *			
I have been mistreated by doctors because of my sexual orientation.	65 (12.9)	438 (87.1)	-
I have been ignored by doctors because of my sexual orientation.	64 (12.7)	439 (87.3)	-
Question			
Have you ever perceived that your doctor was uncomfortable discussing your sexuality or sexual history?	151 (30)	218 (43.3)	134 (26.6)
Has a doctor ever refused to provide healthcare to you because of your sexual behaviors?	33 (6.6)	360 (71.6)	110 (21.9)
Have you ever refrained from a necessary examination or treatment because you were afraid of being discriminated against because of your sexual orientation?	199 (40)	247 (49.1)	57 (11.3)
Have you ever felt discriminated against by physicians, in hospitals or in other areas of the healthcare system because of your sexual orientation?	104 (20.7)	268 (53.3)	131 (26)
Have you ever been refused an examination or treatment because of your sexual orientation?	37 (7.4)	397 (78.9)	69 (13.7)
Have you ever felt that your doctor should know about your sexual orientation prior to an examination or treatment, but you did not disclose it for fear of negative consequences?	187 (37.2)	221 (43.9)	95 (18.9)
Did you ever feel the need to talk about your sexual orientation with your doctor but he/she dismissed/ignored it?	53 (10.5)	339 (67.4)	111 (22.1)

* Respondents were not given a 'Not sure' option for these statements