



# Mental Health Services for Men Who Have Sex with Men in China

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## Abstract

This study explores the presence of mental health challenges and related service utilization among MSM in China. An online cross-sectional survey recruited 520 MSM in Guangdong, China, to evaluate the participants' psychiatric symptoms, service fulfillment, and challenges. A high proportion of the participants experienced at least one psychiatric symptom in the past year, but less than half of their mental health service needs were fulfilled. The preferred agencies for mental health services were provincial and city-level general hospitals or primary health centers. Lack of knowledge and misconceptions of mental health services were the primary reasons for not receiving necessary services. Mental health service fulfillment was associated with younger age, lower education, higher income, local residency, cohabitation, and disclosure of MSM status. The high rate of mental health issues and gaps in service seeking indicates an urgent need to increase mental health awareness among MSM.

**Keywords** Men who have sex with men · Mental health · Service utilization · China

## Introduction

Globally, men who have sex with men (MSM; including gay men, bisexual men, transgender, and male sex workers) are disproportionately affected by various psychological problems, including depression, anxiety, and substance abuse (Batchelder et al. 2017). The mental health problems, often associated with childhood abuse, stigma, and social exclusion, can have a devastating impact on both the physical and mental wellbeing of MSM (Mimiaga et al. 2015; Stahlman et al. 2016; Tsuyuki et al. 2017). Mental health issues among MSM can increase uptake of unprotected sexual behaviors and thereby amplify the risk of HIV transmission (Houston et al. 2012; Safren et al. 2011). Mental stress could trigger substance use as MSM may use psychoactive substances as a way to cope with mental health challenges (Voisin et al. 2016). Mental health problems can also jeopardize the HIV prevention efforts by hindering HIV

testing, delaying treatment initiation, reducing adherence to antiretroviral therapy, and increasing early treatment termination (Batchelder et al. 2017). Researchers have called for interventions to improve MSM's mental health to increase the effectiveness of HIV prevention programs (Safren et al. 2011; Sikkema et al. 2009).

Notwithstanding the persistence and severity of mental health problems among MSM, access to mental health treatment and care are often lacking and suboptimal (Berg et al. 2008). Conventional psychotherapy in specialty care settings often has limited accessibility and lacks an MSM-receptive medical environment (Tang et al. 2017; Urbanoski et al. 2008). Discouraged by stigma and discrimination, MSM are reluctant to disclose their sexual identities and become hard-to-reach by healthcare services and intervention programs (Tang et al. 2017; Feng et al. 2010; Watson et al. 2018). Healthcare providers who are unaware of a patient's sexual orientation may not be able to address the homosexual-related stress or provide targeted treatment (Durso and Meyer 2012). Despite these health disparities, there is a paucity of data attending to MSM's specific mental health needs and service utilization patterns.

China has over 21 million MSM, who are at the highest risk of HIV in the country (Zhao et al. 2016). HIV prevalence among Chinese MSM increased drastically from 2.5% in 2006 to 25.8% in 2014 (National Health and Family

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Planning Commission of the People's Republic of China 2015; Zhu et al. 2018). Homosexuality is considered deviant in traditional Chinese culture (Shao et al. 2018). Although Chinese society has undergone dramatic sexual liberation in the past three decades, MSM in China still face tremendous mental health challenges associated with societal stigma and the pressure to have offspring to carry on the family name and blood (Feng et al. 2010; Wu et al. 2017; Zheng 2018). Chinese MSM's mental burden is further compounded by inadequate laws to protect lesbian, gay, bisexual, and transgender (LGBT) rights and same-sex relationships in China (Chen 2018; United Nations Development Programme 2016). However, the mental health status and health service needs of Chinese MSM are currently understudied. The aim of this study is, therefore, to examine the presence of psychiatric symptoms among MSM in China, with a focus on understanding their service-seeking behaviors and preference. The lessons learned could inform the future efforts to enhance mental health-related services tailoring to MSM's special needs.

## Methods

### Study Site

The study was conducted in Guangdong Province, one of the most populous provinces in China, with a large number of domestic migrants (Lu and Xia 2016). Due to its economic development and tolerant social atmosphere, Guangdong attracts MSM from different areas of China (He et al. 2017; Mi et al. 2016). The province has a concentrated HIV epidemic among MSM (Qin et al. 2017). Among the newly diagnosed HIV cases reported in Guangdong Province in 2018, approximately one third were infected through male homosexual transmission (Health Commission of Guangdong Province 2018). The online cross-sectional survey was conducted with the assistance of the "Guang Tong," the largest local community-based LGBT organization with approximately 84,000 MSM members.

### Participant Recruitment

In September 2018, a link to the online survey was advertised on the "Guang Tong" website (<https://www.gdtz.org>) and its corresponding WeChat Groups ([web.wechat.com](http://web.wechat.com)). MSM who were interested could click on the advertisement, which would direct them to an online screening form. The participants had to then self-certify that they fulfilled the following eligibility criteria: (1) at least 18 years old, (2) being male at birth, (3) having had sex with men during lifetime, and (4) currently residing in Guangdong Province. Before proceeding to the survey, the potential participants reviewed

an online study information form, which disclosed the study purpose and procedure, risks and benefits, and other ethics issues. The participants provided online informed consent before answering the survey questions.

### Data Collection

The electronic survey system was established using an online survey platform (<https://www.wjx.cn/>). The system allowed researchers to block duplication of IP addresses to avoid repeated responses from one respondent. The participants self-administered the survey using a mobile phone or a personal computer. No personally identifiable information was collected from the participants. The assessment was simple and took approximately 10–15 min to complete. At the end of the survey, the participants received a mobile payment of 30 RMB (approximately 4.5 USD) and a voucher for an HIV prevention goodie bag (containing an HIV home testing kit and condoms/lubricants redeemable at "Guang Tong" local offices). Ethical approval of the study had been granted by the Institutional Review Boards of the University of California, Los Angeles (#17-001457) and the Guangdong Provincial Center for Disease Control and Prevention (#2017011) prior to collecting data.

### Measures

The survey collected participants' *demographic and background characteristics* (age, education, employment status, annual income, residence, health insurance coverage, cohabitation, and disclosure of their sexual orientation).

The participants' *mental health status* was assessed by querying the question "have you experienced the following psychiatric symptom(s) that were severe enough to interfere with your regular life in the past year?" The listed symptoms included (1) depressive symptoms, (2) anxiety, (3) sleeping disorders, (4) substance dependence, (5) memory loss, and (6) other psychological symptoms. The mental health symptom list was developed based on local MSM social workers and psychiatrists' suggestions. Due to the online nature of the survey, we simplified the answer format to be either 1 = yes or 0 = no for each symptom to boost responsiveness.

In order to document the *service reception*, for any of the reported symptom(s), the participants were asked if they have received mental health services (including medication and behavioral therapy) to alleviate the symptom (coded as 1 = yes and 0 = no for each reported symptom). Based on the service reception questions, *service fulfillment* was defined as having received mental health services for all experienced psychiatric symptoms during the past year.

The participants were further asked their *preferred type of healthcare agency* when they needed mental health-related healthcare services or advice. The response categories

included provincial/city-level general hospitals, district/city-level general hospitals, mental health specialized hospitals, primary healthcare centers, private hospitals, and others/no preferences. Individuals who had untreated psychiatric symptoms were asked additional questions about *the reasons for not utilizing services*. The participants could choose a primary reason from a range of potential barriers to accessing mental health services identified from the literature (Dunbar et al. 2017).

Three questions were used to measure *MSM-related stigma experienced in healthcare settings*. The items were constructed based on a previous study regarding HIV-related stigma among service providers in China (Li et al. 2009). The three questions asked if, in the past, the participants had been (1) treated unfairly, (2) refused treatment, or (3) treated as an inferior by a healthcare professional because of the MSM status. Each question was scored with a five-point Likert scale (from 1 = very much agree to 5 = very much disagree) with a total possible score of 5–15. After reversed coding, a higher score indicates a greater level of stigma experienced in healthcare settings (Cronbach's alpha = 0.92).

## Data Analysis

Statistical analyses were conducted in SAS software version 9.4 (SAS Institute, Inc., Cary, NC). Descriptive statistics were generated to describe the distribution of the demographic characteristics, psychiatric symptoms, and health service utilization for each of the presenting symptoms. Among those who indicated psychiatric symptoms, we descriptively analyzed the types of preferred healthcare agencies and reasons for not receiving mental health services. In addition, a logistic regression model was conducted to identify factors associated with health service fulfillment among those who had experienced psychiatric symptoms. Odds ratios (ORs) and the significance level of the covariates were reported.

## Results

### Sample Description

A total of 520 participants had completed the online survey. The average age was 28.2 (SD = 5.8) years, and 225 (43.3%) were between 26 and 30 years. About half of the participants (n = 276, 53.1%) had undergraduate or higher education attainment, and two-thirds (n = 343, 66.0%) had a full-time job at the time of the study. The median income of the study sample was 100,000 Chinese yuan (approximately 15,000 USD). In comparison, the median income in Guangdong Province in 2017 was approximately 49,000 Chinese yuan (7000 USD) in 2018 (Human Resources and Social Security

Department of Guangdong Province 2018). The majority of the participants (n = 313, 60.2%) were local residents with Guangdong *hukou*. Slightly less than half (n = 243, 46.7%) of the MSM in the study lived alone, 22.7% (n = 118) lived with a male sex partner, 11.2% (n = 58) lived with a spouse or a female sex partner, and 19.4% (n = 101) lived with other family members. About one third (n = 162, 31.2%) of the participants had not disclosed their sexual orientation to the public.

### Psychiatric Symptoms

The vast majority (n = 403, 77.5%) of the MSM participants reported at least one of the psychiatric symptoms. The average number of reported psychiatric symptoms was 1.7 (SD = 1.3). The most prevalent symptom was anxiety (41.0%), followed by sleeping disorders (40.8%) and memory loss (36.4%). Depressive symptoms were reported by 27.7% of the participants. Psychiatric symptoms were most frequently reported by those who had fully disclosed MSM status to the public (84.6%, p = 0.0268). The participants who had psychiatric symptoms had experienced a higher level of stigma in healthcare settings than those who had no symptoms (mean stigma score: 7.5 and 6.8 for those with and without psychiatric symptoms, respectively, p = 0.0290).

### Service Reception

Relatively higher proportions of participants with substance dependence (59.5%) and sleeping disorders (53.8%) had received mental health services. Less than half of the participants with depressive symptoms (49.3%), anxiety (45.5%), and memory loss (41.3%) had received corresponding health services. Provincial and city-level general hospitals (40.3%) were the most preferred healthcare agencies when seeking mental health-related services, followed by primary healthcare centers (17.5%). District and county-level general hospitals were preferred by 13.8% of the participants with psychiatric symptoms. Only 10.8% of the participants preferred mental health-specialized hospitals.

The most common reasons for not receiving healthcare were lack of knowledge of where to seek care (22.0%), followed by the misperceptions that mental health treatment is unnecessary (19.2%). Financial difficulties (16.9%), fear of stigma (11.3%), and fear of inadvertent disclosure of mental health issues (9.6%) were also cited as the main reasons for not receiving mental health care. Other reasons cited by the participants included logistic issues (7.9%), regarding mental health treatment as being ineffective (7.3%), concerns of potential side effects (2.8%), and having other health conditions (1.7%).

Among those who had psychiatric symptoms in the last year (n = 403), 169 (41.9%) had fulfilled mental health

services for all reported psychiatric symptoms. Older age (OR = 0.96;  $p = 0.0469$ ) and having a Bachelor's or above degree (OR = 0.49;  $p = 0.0016$ ) were associated with a lower likelihood of mental health service fulfillment. The participants who had an annual income of 10,000 USD or higher (OR = 2.55;  $p = 0.0007$ ) and Guangdong local residents (OR = 1.62;  $p = 0.0540$ ) were more likely to receive mental health care for all experienced psychiatric symptoms. Living with a spouse, partner, or family (OR = 2.02;  $p = 0.0034$ ) was also found to be significantly correlated with mental health service fulfillment. Those who had not disclosed their MSM status were less likely to fulfill their mental health service needs (OR = 0.5;  $p = 0.0058$ ).

## Discussion

The study suggests that a significant proportion of MSM in China are suffering from mental health-related issues that 41.0% of the participants reported anxiety and 27.7% reported depression severe enough to interfere with their lives over the past year. The elevated rates of mental health problems among MSM is a worldwide issue (Cochran et al. 2003; Nugraheni et al. 2018; Safren et al. 2011). Consistent with previous studies conducted in other countries, our findings suggested that stigma and non-disclosure of the sexual orientation would contribute to the mental stress in MSM (Chong et al. 2016; White et al. 2016). The current state of mental health of Chinese MSM should raise public health concerns, given the demonstrated association between mental illness and HIV transmission risk. The study calls for the urgent need to provide mental illness prevention, identification, and curative service for MSM in China.

The results demonstrate that unmet mental health treatment needs were widespread among MSM in China, as only about 40% of the MSM had received mental health services for all reported psychiatric symptoms. The reasons behind not seeking mental health services have suggested strategies to enhance mental health service utilization. First, lacking knowledge about the availability of mental health services was the main reason behind the service gap. We thus recommend information campaigns to raise the awareness of mental health care and link MSM to locally accessible psychosocial services. The information campaigns could be conducted through MSM community-based organizations in conjunction with their current outreach activities. Instituting a system of mental illness self-screening and linkage to care in popular MSM online social networking applications would also be a viable strategy to reach and engage the targeted audiences (Young 2014). Second, the perceived lack of necessity associated with mental health care was also one of the major factors contributing to the mental health service gap. In light of this finding, we suggest that popular

social networking platforms can be employed to correct the myths of mental illnesses and advertise the effectiveness of various mental health treatment programs. Third, financial difficulties were also frequently cited as a barrier to mental health service reception in this study. The finding calls for service providers' attention to bridge MSM with mental health issues to appropriate social support systems to alleviate their financial issues (Evans 2018).

The highest proportion of MSM (40.3%) in the study preferred to seek mental health-related services from the provincial or city-level general hospitals. The result reflects the Chinese general public's high trust in the professional capacity and the quality of care provided in centralized hospitals (Wang et al. 2018). Surprisingly, only one-tenth of the participants preferred specialized psychiatric hospitals. Such hesitation in health-seeking could potentially be attributed to the stereotype, embarrassment, and stigma associated with mental disorders (Xu et al. 2017a, b). To close the treatment gap in access to mental health services, the World Health Organization has called for all countries to provide comprehensive and integrated mental health services in community-based settings (Wakida et al. 2017; World Health Organization 2013). In response to the call, China is currently integrating mental health services into the primary healthcare systems (Liang et al. 2017). An encouraging result of the study was that altogether there were approximately 30% of the MSM participants that indicated preferences to receive care from district/county-level hospitals or primary care centers. This welcoming attitude might suggest the acceptability of embedding a continuum of mental health service, from screening, treatment, and referral in primary care settings for MSM.

Our findings point to several vulnerable subgroups of MSM with particular service gaps. Echoed by studies conducted in general populations, older MSM tend to be less likely to receive mental health care (El-Gabalawy et al. 2015; Urbanoski et al. 2008). The lack of knowledge of mental health, as well as low health literacy, could hinder older MSM's care-seeking (Guo et al. 2017). MSM with higher annual income were more likely to use mental health services. This association could be explained by the significant variability in the health insurance coverage of psychiatric services in China (Zhou et al. 2014), in what context one's ability to receive services would to a great extent depend on his economic status. Contrary to previous studies (Li et al. 2013; Urbanoski et al. 2008), mental health service use was found to be lower among the MSM who had higher education attainment. This result could be due to highly educated MSM's certain health beliefs that were not measured in this study. Future studies to investigate the underlying mechanisms for the relationship between education and the use of mental health services are warranted. In addition, the results of the study indicated that immigrant MSM had

more unmet healthcare needs compared to local residents. Migrant populations, in general, make up a socially disadvantaged group in China. In the absence of local residency status, they have inferior access to social welfare benefits including health insurance coverage and other subsidies (Song 2014). Their unfulfilled mental health service needs require policy changes to boost migrant populations' access to care (Xu et al. 2018). It should be noted that the support and encouragement from families could be a facilitator for MSM's service utilization, as MSM who live alone are less likely to receive services when faced with mental problems. Contemporary mental health services require family inclusion to provide support in service seeking and personal recovery (Martin et al. 2017), and this applies to MSM populations as well. On a related note, concealing one's sexual orientation, although often used as a strategy to avoid societal stigma and rejection, could at the same time impede MSM's access to psycho-social support and health services. Though individual disclosure of sexual orientation is not always necessary and heavily influenced by social environments (Wirtz et al. 2014), future interventions should give heightened attention to MSM who have not disclosed and provide them with skills to weigh the advantages and disadvantages of disclosure in healthcare utilization.

There are several study limitations to keep in mind. The study sample, which was drawn from an online community, was not a representative sample of MSM at large. People with psychiatric symptoms may have been more likely to elect to participate in the online survey than those who did not see themselves as experiencing psychiatric symptoms, thus skewing the results. The study site, Guangdong, is a prosperous province with a relatively accepting culture towards the LGBT population. The participants' economic status and health insurance coverage might be higher while their perceived stigma would tend to be lower than that in other regions of China. Some of the associations identified in the study might not be generalizable to MSM living in other geographic areas of China. A second limitation of this study is with regard to the measures used in the study. Given the online nature of the survey, psychiatric symptoms (including substance dependence) were measured in an overly simplified manner, in that only the presence or absence of a symptom was being assessed, not the severity or degree. There were no standardized, evidence-based rating scales used in the survey. Some symptoms measured in the study, such as memory loss, would not typically lead to a presentation for mental health treatment. In addition, self-reported psychiatric symptoms and treatment utilization are subject to potential recall bias and social desirability bias. Last but not least, the cross-sectional design limits our ability to infer causation.

In conclusion, the high prevalence of psychiatric symptoms and low treatment fulfillment poses a serious public

health problem among MSM in China. Our findings underscore the importance to increase awareness of mental health disorders and deliver timely and MSM-competent disease screening and treatment. Special efforts should be undertaken to provide mental health care for older, migrant, low-income, and non-disclosed MSM. Involvement of the primary care system and family members of MSM during the service seeking process is encouraged.

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**Author Contributions** CL conceptualized the study, conducted data analysis, and drafted the manuscript. LL and YL contributed to the study design and result interpretation. Material preparation and data collection were performed by JL and XF. All authors read and approved the final manuscript.

## Compliance with Ethical Standards

**Conflict of interest** No potential conflict of interest was reported by the authors. All authors have no conflict declared.

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