

## Original Research Article

# Assessment of sexual identity, sexual-behavior and self-reported medical and psychosocial issues of men who have sex with men in Chandigarh, India

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## ABSTRACT

**Background:** Men who have sex with men (MSM) are a vulnerable group who are susceptible to high incidence of Sexually Transmitted Infections (STIs) and Acquired Immuno-Deficiency Syndrome (AIDS). The objective of the study was to assess sexual identity, sexual behavior and self-reported medical and psychosocial issues of MSM in Chandigarh, India.

**Methods:** A total 115 MSM were included in the study from two Non-Governmental Organization (NGO) centres of Chandigarh and were selected using simple random sampling. The interview was conducted in the office of NGOs centre with the help of an interview schedule. Results were analysed using descriptive analysis.

**Results:** Nearly half of the participants (48.7%) self-reported their identity as bisexual and 27.8% of them identified them as Kothi (passive partner). Approximately one third of (33.9%) MSMs reported their first sexual relationship as 'non-consensual' and 19.1% reported themselves as a victim of child abuse. Six percent participants reported symptoms of depressed mood, 22.6% of MSMs had suicidal thoughts and 11.3% had tried to attempt suicide at least once. STIs symptoms were reported by 15.6% of the participants in the last three months; while 2.6% were HIV positive.

**Conclusions:** Psychosocial issues and health problems are triggering factors for suicidal ideation and suicidal attempt in the MSM population.

**Keywords:** Child abuse, Depression, MSM, Non-government organization, Non-consensual relationship, Suicide

## INTRODUCTION

Sexual health comprises of being healthy and feeling good in terms of own sexual orientation, positive sexual relationship and performing safe sexual practices free from any sexually transmitted infections. Sexually transmitted infections (STIs) are not the only problem, which create disequilibrium in sexual health, but there are

other issues as well among LGBT (Lesbian, Gay, Bisexual, and Transgender) population. It has been noted in various surveys and studies, that the prevalence of STIs and Human Immunodeficiency Virus (HIV) infections is more in LGBT population as compared to others.<sup>1,2</sup> They practice different kind of sexual behavior, which is not easily acceptable in the Indian society. Men who have sex with men (MSM) is one of such category of people who

are facing the problem of sexual orientation, which often make them susceptible to unsafe sexual practices. MSM includes all men who have sex with men irrespective of their sexual orientation i.e. homosexual, bisexual or hetero-sexual. It has also been observed that the behavior of Indian MSM is not fixed, they can change over time e.g. - homosexual MSM can become bisexual or heterosexual and can keep moving between these two categories.<sup>3-6</sup>

In India the prevalence of HIV among MSM was estimated around 8.1% in 2006 and the same was reported to be 4.3% in the Integrated Biological and Behavioural Surveillance Survey (IBSS) report 2014-15. In the states of Punjab, Himachal and Chandigarh the prevalence of HIV among MSM was calculated at 2%.<sup>7,8</sup> Globally every year approximately 1 million new cases of sexually transmitted infections (STIs) are acquired in a single day.<sup>9</sup>

The lack of knowledge and understanding about MSM behaviors makes such individuals invisible. Such invisibility denies their access to health care and increases the spread of STI/HIV among them and their partners. There is an urgent need to take actions for the pro-motion of sexual health among MSM and to get control over the transmission of STI/HIV. It is equally essential to understand sexual identity and sexual behavior of MSM, because health problems are directly or indirectly linked with sexual behavior of MSM.

Objective of the study was to assess sexual identity, sexual behavior and self-reported medical conditions and psychosocial issues of men who have sex with men in Chandigarh, India.

## METHODS

A cross sectional study on MSM was carried out in the city of Chandigarh in 2017-2019. Out of three Non-Governmental Organization (NGO) centres working in collaboration with Chandigarh State AIDS Control Society (to prevent STI/HIV among MSM through Target Intervention (TI) project), two were selected using simple random sampling.

All MSM who visited these two NGO centres during the month of August 2018 and were able to give consent were included in the study. Out of 1400 registered MSM of the two selected NGOs, 115 were eligible and were included in the study. The interview schedule was prepared and validated by experts in the field of Nursing and Community Medicine of PGIMER Chandigarh. The tool comprised of: socio-demographic profile sheet of MSM, sexual behavior assessment of MSM and self-reported medical and psychosocial issues. Permission was obtained from Director of State AIDS Control Society (SACS) Chandigarh. A comfortable environment was provided and privacy was maintained. Written consents were obtained from the participants to participate in the study.

Data was collected by interviewing the participants in the counselling room of the NGO office as per the interview schedule. Duration of interview was 25-30 minutes per participant and at the end of the interview, need based counselling was done for each participants. Descriptive analysis was done for sexual identity, risk behavior and for medical and psycho-social issues using SPSS software version 20 and data was presented in the form of tables. Ethical clearance was taken from Institute Ethics Committee, PGIMER, Chandigarh (Reference number-NU/4120/MSc).

## RESULTS

Socio-demographic profiles of MSMs showed that 35.7% of participants were less than 20 years of age and only 12.2% of participants were more than 30 years of age. There were 22.6% of participants, who had completed higher secondary education; while 9.6% of participants had no formal education. Among 115 MSM 73.9% were never married and 40.9% of participants were living with their female partner. There were 42.6% participants, who were Government/Private employees and 15.7% were self-employed. There were 24.3% participants who had no monthly income while 23.5% had monthly income in the range of Rs. 5000-10,000 (Table 1).

Sexual behavior assessment showed that about half of the participants (48.7%) self-reported them as bisexual and 27.8% identified them as Kothi (passive partner). Most of the participants (83.5%) had recognition of same sex attraction and had first same sex encounter during their minor age. Type of first sexual relationship was consensual in 63.5% of participants and non-consensual in 33.9% of the participants. Among these MSM unsafe sexual practices were anal sex without using condom (78.3%) and experience of condom breaking during anal sex (34.8%).

On assessing the risk behavior in the last one month prior to the interview, it was reported that 31.3% participants had anal sex without using condom, 29.6% had more than one regular partner, 29.6% had sexual encounter after alcohol/ drug use, 6.08% had experienced forced sex and 3.5% experienced condom breaking during anal sex. Some participants (22.6%) traveled to other cities for having sex (Table 2).

On enquiring about medical problems, 15.6% of the participants gave history of STI in the last 3 months, 2.6% were HIV positive and 1.5% were hypertensive. Psychosocial problems reported by them were suicidal thoughts (22.6%), child abuse (19.1%), suicidal attempt (11.3%), depression (6.1%) and anxiety (4.3%). On enquiring participants about addiction, it was found that 74.34% were using alcohol, 33.04% were alcoholic as per CAGE score and 39.13% were smokers. Very few participants (2.6%) had got vaccinated against Hepatitis B and no participants had ever been vaccinated with Human -papilloma vaccine (HPV) (Table 3).

**Table 1: Socio-demographic profile of MSM.**

Socio-demographic profile	No. of participants (%)
<b>Age (years)</b>	
<20	41 (35.7)
21-25	33 (28.7)
26-30	27 (23.5)
>31	14 (12.2)
<b>Education</b>	
No formal education	11 (09.6)
Completed primary education	12 (10.4)
Completed elementary education	24 (20.9)
Completed high school education	21 (18.3)
Completed higher secondary education	26 (22.6)
Completed college degree / diploma course / post graduation	21 (18.3)
<b>Religion</b>	
Hindu	103 (89.6)
Other (Muslim, Sikh)	12 (10.4)
<b>Marital status</b>	
Never married	85 (73.9)
Ever married	30 (26.1)
<b>Current living status</b>	
Alone	06 (5.2)
With friend	09 (7.8)
With male partner	09 (7.8)
With female partner	47 (40.9)
With parents	44 (38.3)
<b>Occupation</b>	
Unemployed	29 (25.2)
Daily wage labourer	19 (16.5)
Self-employed	18 (15.7)
Private /government employee	49 (42.6)
<b>Monthly income</b>	
No income	28 (24.3)
<5000	19 (16.5)
5000-10,000	27 (23.5)
10,001-15,000	20 (17.4)
>15000	21 (18.3)

Mean±SD (range) = Age (years) = 24.48±6.39 (18-48) Monthly income 9791.30±9580.90 (0-40,000).

**Table 2: Sexual and risk behavior assessment of MSM (n=115).**

Sexual and risk behavior assessment	No. of participants (%)
<b>Sexual behavior assessment</b>	
<b>Sexual identity (i.e. self-reported)</b>	
Kothi	32 (27.8)
Panthi/Girya	07 (6.1)
Double-decker/versatile	20 (17.4)
Bisexual	56 (48.7)
Recognition of same sex attraction at minor age (<18 year)	96 (83.5)
First same sex encounter at minor age (<18 year)	97 (84.3)
<b>Type of first sexual relationship</b>	
Consensual relationship	73 (63.5)
Non- consensual relationship	39 (33.9)
Don't remember / Don't know	3 (2.6)

Continued.

Sexual and risk behavior assessment	No. of participants (%)
<b>Risk behavior assessment</b>	
Ever had anal sex without using a condom	90 (78.3)
Ever had experience of a condom breaking during anal sex	40 (34.8)
Travel for having sex	26 (22.6)
<b>Risk behavior assessment (in last one month)</b>	
Anal sex with male/ hijra sexual partners without using a condom	36 (31.30)
Experience of a condom breaking during anal sex	04 (3.47)
More than one regular partner	34 (29.56)
Experienced forced sex	07 (6.08)
Sexual encounter after alcohol/ drug use	34 (29.56)

Mean±SD (Range) = Identified sexual identity ( at age ) = 14.53±3.79 (5-24) Age at first sex= 14.84±3.56 (5-24).

**Table 3: Self-reported medical illness, psychosocial issues, addiction and preventive practice of MSM.**

Self-reported medical illness, psychosocial issues, addiction and preventive practice	No. of participants (%)
<b>Medical illness</b>	
Hypertension	2 (1.7)
STI with-in last 3 month	18 (15.65)
HIV/AIDS	3 (2.60)
<b>Psychosocial issues</b>	
Depression	7 (6.1)
Anxiety	5 (4.3)
Suicidal thoughts	26 (22.6)
Suicidal attempt	13 (11.3)
Child abuse	22 (19.1)
<b>Addictions</b>	
Alcohol use	74 (64.34)
Alcoholic	38 (33.04)
Smokers	45 (39.13)
<b>Preventive practices</b>	
Vaccination against hepatitis B	3 (2.6)
Vaccination against HPV	-

## DISCUSSION

Men who have sex with men are the high risk population because of their vulnerability for sexually transmitted infections, HIV-AIDS, mental illness and other illnesses. Besides illness there are other problems also like social injustice, stigma of being MSM, lack of family support, poverty, lack of education and unemployment. MSM have to face various challenges to become healthy and live a comfortable life, especially in the Indian society. Hence a need was to know the sexual identity broadly, sexual behaviour and prevalence of health problems and psychosocial issues of MSMs in India.

MSM is not a visible population. They hide their sexual orientation from the general population so it was not possible to reach MSMs at individual level in the community for the investigator. There are three NGO centres working in collaboration with Chandigarh-State AIDS Control Society for welfare of MSM. Two NGO's were selected after assessing the geographical

characteristics, which cater population of both rural and urban population. Data was collected by interviewing them as per personal interview schedule. The assessment of sexual behavior of MSM included, their sexual identity, but not the sexual orientation as, sexual orientation is more concerned with their own opinion about their self. On the other hand sexual identity includes: Kothi, Panthi/Girya, Double-decker and Bisexual. These terms can be explained on the basis of role of MSM in sexual relationship. Kothis have more effeminate mannerism and act as passive partner, whereas Panthis are the active male partner. Double-deckers are combination of both, as sometimes they act as a active partner and some-times as passive partner. Bisexual is combination of both homosexuality and heterosexuality. In the present study 27.82 % (N=115) of MSM identified themselves as a Kothi and half of the MSM reported to be bisexual.

This finding are different than the Integrated Biological and Behavioral assessment survey (IBBS) of Northern, Central and Eastern Region of India which showed that

half (51.2%) of the MSM identified themselves as Kothi and only 6.1% identify themselves as bisexual.<sup>8</sup> Similarly high percentage of MSM (71.5%) reported their sexual identity as Kothi in a study on MSMs involved in public sex. This difference is apparent, as Kothis are more likely to be a part of public sex because of their passive nature.<sup>7</sup> A study done by Yadav D et al to assess the behavior of 3880 MSM's across three states in India found that 53% were Kothi.<sup>10</sup> The difference in findings of present study and other studies may be a result of random sampling technique and limited sample size.

As it is clear from the above-mentioned studies that nearly half of the MSM identify them-selves as a Kothi and due to their passive nature, they are more prone for public sex, forced sex and for sexual violence. In this study, 33.9% of participants have mentioned their first sexual relationship as non-consensual relationship and 19.1% of participants have reported themselves as a victim of child abuse. This incidence of forced sex was significantly higher in the study of Newman et al. and was 40.5%, because in that study they have asked for forced sex in the last one year and likely again due to the fact that majority of the MSMs in their study were Kothi's and also that they were involved in public sex.<sup>7</sup>

Many unsafe sexual practices are practiced among MSM e.g anal sex without condom, which make them susceptible for STIs and HIV/AIDS. In the present study, 78.3% of participants had anal sex without using condom at-least once and 34.8% had experienced condom breaking during anal sex. Whereas in the preceding one month 31.3% participants had anal sex without using condom and 3.47% had experienced condom breaking during anal sex. During the preceding three months 15.65% participants reported of having STIs and 2% reported themselves as HIV positive. Similar HIV prevalence was observed by national Integrated Biological and Behavioral Assessment Survey, 2014-2015 in Chandigarh.<sup>8</sup>

In the present study, 6.1% participants reported to have symptoms of depressed mood and self-diagnosed themselves as a victim of depression. It was also reported in another study that the 35.3% of MSM have moderate to severe depression.<sup>11</sup> This difference can be due to the method of assessing depression, which was assessed with the help of Beck's Depression Inventory Fast Screen scale by health professionals in the other study, whereas in present study depression was self-reported.

MSM are lifetime prone for suicidal thoughts.<sup>12</sup> In the present study, 22.6% of MSM had suicidal thoughts and 11.3% attempted suicide. Similar findings were reported in another study that, 21% of MSM had made suicide plan and 12% of MSM had attempted suicide. It has been also reported that half of those who attempted suicide were multiple attempters.<sup>13</sup>

## CONCLUSION

MSM are suffering many psycho-social issues (Child abuse, depression, anxiety, suicidal thoughts and suicidal attempt) and medical illnesses (STIs and HIV, AIDS) which are paving their path to commit suicide. As they are the victims of forced sex, unsafe sexual behavior and child abuse which make them vulnerable for STIs, HIV / AIDS, mental health problems and ultimately suicide. There is a need to take essential strict steps against sexual violence and child abuse of MSM as they are more prone for all types of violence, which result into mental health problems like anxiety, social isolation and depression. Later on these problems result into suicidal ideation and may end with suicide.

Hence, the efforts should be taken on the part of government and non-government organizations to provide MSM acceptance in society. Educational and employment opportunities should be increased for them without any discrimination. This study is limited to self-reported sexual identity, sexual behavior, medical and psychosocial issues. It is recommended to use a standardized tool for proper assessment of all these parameters.

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## REFERENCES

1. Chakrapani V, Newman PA, Shunmugam M, Mengle S, Nelson R, Rubincam C, et al. Like holding an umbrella before it rains: acceptability of future rectal microbicides among men who have sex with men in India-a modified technology acceptance model. *Qual Health Res*. 2017;27(8):1236-48.
2. Hafeez H, Zeshan M, Tahir MA, Jahan N, Naveed S. Health care disparities among lesbian, gay, bisexual, and transgender youth: a literature review. *Cureus*. 2017;9(4):e1184.
3. Asthana S, Oostvogels R. The social construction of male 'homosexuality' in India: implications for HIV transmission and prevention. *Soc Sci Med*. 2001;52(5):707-21.
4. Dandona L, Dandona R, Gutierrez JP, Kumar GA, Mcpherson S, Bertozzi SM, et al. Sex behaviour of men who have sex with men and risk of HIV in Andhra Pradesh, India. *AIDS*. 2005;19(6):611-9.
5. Go VF, Srikrishnan AK, Sivaram S, Murugavel GK, Galai N, Johnson SC, et al. High HIV prevalence and risk behaviors in men who have sex with men in



- Chennai, India. *J Acquir Immune Defic Syndr*. 2004;35(3):314-9.
6. Thomas B, Mimiaga MJ, Menon S, Chandrasekaran V, Murugesan P, Swaminathan S, et al. Unseen and unheard: predictors of sexual risk behavior and HIV infection among men who have sex with men in Chennai, India. *AIDS Educ Prev*. 2009;21(4):372-83.
  7. Newman PA, Chakrapani V, Cook C, Shunmugam M, Kakinami L. Correlates of paid sex among men who have sex with men in Chennai, India. *Sex Transm Infect*. 2008;84(6):434-8.
  8. National AIDS Control Organisation (NACO). National Integrated Biological and Behavioural Surveillance (IBBS). Available at <http://naco.gov.in/sites/default/files/IBBS%20Report%2014-15.pdf>. Accessed on 10 April 2020.
  9. Rowley J, Hoorn VS, Korenromp E, Low N, Unemo M, Raddad LJ, et al. Chlamydia, gonorrhoea, trichomoniasis and syphilis: global prevalence and incidence estimates, 2016. *Bull World Health Organ*. 2019;97(8):548-62.
  10. Yadav D, Chakrapani V, Goswami P, Ramanathan S, Ramakrishnan L, George B, et al. Association between alcohol use and HIV-related sexual risk behaviors among men who have sex with men (MSM): findings from a multi-site bio-behavioral survey in India. *AIDS Behav*. 2014;18(7):1330-8.
  11. Chakrapani V, Newman PA, Shunmugam M, Logie CH, Samuel M. Syndemics of depression, alcohol use, and victimisation, and their association with HIV-related sexual risk among men who have sex with men and transgender women in India. *Global Public Health*. 2017;12(2):250-65.
  12. Cochran SD, Mays VM. Lifetime prevalence of suicide symptoms and affective disorders among men reporting same-sex sexual partners: results from NHANES III. *Am J Public Health*. 2000;90(4):573-8.
  13. Paul JP, Catania J, Pollack L, Moskowitz J, Canchola J, Mills TT, et al. Suicide attempts among gay and bisexual men: lifetime prevalence and antecedents. *Am J Public Health*. 2002;92(8):1338-45.

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