

Original Research Article

Sexual risk behaviour and sexually transmitted infections in men who have sex with men

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ABSTRACT

Background: In India the estimated men who have sex with men (MSM) population is around 352, 000, among that 4.3% are living with HIV. The incidence of sexually transmitted infections (STIs) in MSM is greater than that reported in women and men who have sex with women only. The aim of the study is to determine the trends of sexual behaviour and the pattern of sexually transmitted infections in men who have sex with men.

Methods: A retrospective study of the data collected from the clinical records of all MSM, who had attended the STI clinic of Kilpauk Medical College, Chennai, Tamil Nadu, during the three-year study period, from July 2016 to June 2019. Demographic data, sexual risk behaviour, condom usage and STIs, among the MSM, were computed and analyzed.

Results: During the study period 489 MSM attended the STI clinic, 51.9% were bisexual and 48.1 % were homosexual. Among them, exclusive penetrative sex in 50.7%, exclusive receptive sex in 15.7% and both in 33.6% were reported. Condom usage was consistent in 18.8%, inconsistent in 28.8% and 52.9% never used condom. Unprotected sex is more common in oral sex than with anal sex. STIs were seen in 20.9% and HIV in 1.4% of MSM. Syphilis was the most common STI seen.

Conclusions: Our study elucidated the high prevalence of STIs among MSM and increasing trends of sexual risk behaviour. Health service providers must take necessary steps to improve the provision of biological and medical measures to screen, treat and prevent infections.

Keywords: MSM, Sexually transmitted infections, Condom, Syphilis

INTRODUCTION

“Men who have sex with men” and the corresponding acronym “MSM” refers to all men who engage in sexual and/or romantic relations with other men or who experience sexual attraction towards the same sex.¹ The term “MSM” is inclusive of both variety of patterns of sexual behaviour by males with members of the same sex, and of diverse self-determined sexual identities and forms of sexual and social associations (“communities”).

MSM can include men who identify as gay or bisexual, transgender men who have sex with men, and men who identify as heterosexual. Some men who have sex with men also form relationships with, or are married to, women. Some men sell sex to other men, regardless of their sexual identity. Some men who have sex with men do not associate themselves with any particular identity, community or terminology.

Sexual roles may vary without regard to one’s sexual identity or primary orientation. MSM have been broadly

categorised into various subgroups such as; kothis (effeminate men, predominantly the receptors in anal/oral sex with men); panthis (masculine, predominantly take insertive role in anal/oral sex with men); double-deckers (both receptor and penetrator in sexual relations with males); bisexual men and hijras (male to female transgenders).²⁻⁴

Despite of the diversity in their identities and experiences, many MSM do share common experiences of social exclusion, marginalization, stigma, discrimination or violence - are associated with increased sexual risk behaviour. They may also have common experiences of support, affinity, friendship, love and community.

Sexually transmitted infections (STIs) among MSM are relatively higher than among heterosexual men and women. STIs can often be asymptomatic; they should be routinely screened for STIs, even in the absence of any physical complaints or symptoms.

In India the estimated MSM population is around 352,000, among that 4.3% are living with human immunodeficiency virus (HIV), of whom around 65% are aware of their status. HIV prevalence among MSM varies between areas, high in Maharashtra (4.9%) and Andhra Pradesh and Telangana (10%) and in newer emerging pockets in Gujarat and Goa (6.8%), West Bengal, Jharkhand and Orissa (6.7%).⁵ Condom use remains moderate by MSM, at last sex with casual or male or hijra partner was 85.7%, but consistent condom use was 54.3%. Nearly 50% of MSM indicated they currently have a female partner and less than half of them used condom with female partner at last sex. Meanwhile, 78.1% of MSM have ever tested for HIV.⁶

In September 2018, India's Supreme Court decriminalised homosexuality between consenting adults. The ruling overturned Section 377, a British pre-colonial era law that banned 'carnal intercourse against the order of nature' and carried a maximum jail sentence of 10 years. To date this law meant that HIV services were out of reach for men who have sex with men. The decision overturned a ruling made by the Supreme Court in 2013 that reinstated section 377, having previously suspended it in 2009.

Aims and objectives

The aims and objectives of the study was to determine the trends of sexual behaviour and the pattern of STIs in men who have sex with men.

METHODS

A retrospective chart review of the data collected from the clinical records of all male patients with homosexual or bisexual behaviour who had attended the STI clinic of Kilpauk Medical College, Chennai, Tamil Nadu, during

the three year study period, from July 2016 to June 2019. Demographic data, STIs diagnosed based on the clinical finding and available lab tests like Gram stain, Tzanck smear, wet mount, potassium hydroxide (KOH) examination, dark field microscopic examination and serology was computed and analyzed. STIs were categorized in different syndromes as depicted by the National AIDS Control Organization in the syndromic management of STIs. Sexual behaviour of the clients like age of onset of sexual activity, type of sex, condom usage and sex after alcohol of the MSM patients were analyzed. All male patients who had attended the STI clinic, including direct walk-in clients and clients referred by NGOs, with homosexual or bisexual behaviour during the three-year study period were included. All male patients who denied history of homosexual behaviour and all female patients were excluded from the study. The data collected were computed and analyzed statistically. This study was approved by our institutional ethical committee.

RESULTS

A total of 489 MSM had attended the STI clinic during the study period of 3 years from July 2016 to June 2019. The socio-demographic characteristics are shown in Table 1. The common age group was 21 to 30 years; around 85.5% clients are between 21 to 40 years. 94% were literate and more than half of them 62.8% had at least secondary-level school education. Majority (89.6%) were employed in an occupation but most of them were (58.7%) were working as unskilled labourers. 60.7% of the MSM were unmarried and 35.6% were married and currently living with their female partners.

Almost half of the MSM (51.9%) were bisexuals, reported to ever have had sex with a female partner and 48.1% were homosexuals. Sexual debut was most commonly seen in age group of 16 to 20 years in 41.5%. Oral sex alone was practised by 30.5%, anal sex alone by 22.9% and both by 46.6%. Exclusive active sex (insertive partner –panthis) was seen in 50.7%, exclusive passive sex (receptive partner –kothis) was seen in 15.8% and both were seen in 33.5%. Condom less sex was seen in majority, more than half of the MSM (53%). Consistent condom usage was seen in only 18.2% and 28.8% had inconsistent condom usage. Sex after alcohol was seen in 36.6% of the MSM (Table 2).

STIs were seen in 20.9% of the MSM and 1.4% of them were found to be HIV positive. Syphilis was the most commonly seen STI in 10.8% of the MSM. Primary chancre in 2.0%, secondary syphilis in 2.5% and latent syphilis in 6.3% of MSM were seen. Other STIs commonly seen were genital wart in 3.5%, genital herpes in 3.1% and urethral discharge in 2.0% (Table 3).

The clinically diagnosed STIs were confirmed with appropriate laboratory investigations. All the patients with secondary and latent syphilis had reactive RPR

(rapid plasma reagin) test, the titers ranging from 1:8 to 1:64 and in primary syphilis, the diagnosis was established by dark field microscopic examination of the smears taken from the ulcers. Multinucleate giant cells were demonstrated in the Tzanck smear done in all the 15 patients with genital herpes. Urethral discharge, seen in

10 patients, was confirmed by the presence of more than 5 polymorphonuclear leukocytes (PMNLs) per high power field microscopy and/or Gram-negative intracellular diplococci in the Gram stained urethral secretions.

Table 1: Socio-demographic characteristics of the MSM.

Variables	No. of MSM	Percentage (%)
Age (in years)		
15-20	10	2.0
21-30	222	45.4
31-40	196	40.1
41-50	55	11.2
≥51	6	1.2
Education level		
Illiterate	29	5.9
Primary	67	13.7
Middle	86	17.6
Secondary	164	33.5
Higher secondary	74	15.1
Graduate	69	14.1
Current occupation		
Unemployed	31	6.3
Student	20	4.1
Unskilled labourer	287	58.7
Skilled labourer	103	21.1
Service (private/govt.)	48	9.8
Marital status		
Single	297	60.7
Married	174	35.6
Widower or separated	18	3.7

Table 2: Sexual behaviour of men who have sex with men.

Variable	Frequency	Percentage (%)
Age at first sexual act (in years)		
≤15	97	19.8
16-20	203	41.5
21-25	101	20.7
25-30	64	13.1
>30	24	4.9
Sexual practices (route)		
Oral sex only	149	30.5
Anal sex only	112	22.9
Both (oral and anal)	228	46.6
Sexual practices (sexual positioning)		
Exclusively active	248	50.7
Exclusively passive	77	15.8
Both (active and passive)	164	33.5
Condom usage		
Consistent condom use	89	18.2
Inconsistent condom use	141	28.8
Never used condom	259	53.0
Sex after alcohol		
Yes	179	36.6
No	310	63.4

Table 3: STIs among MSM during the three-year period.

Genital ulcer-herpetic (%)	Genital ulcer-non herpetic (%)	Urethral discharge (%)	Genital wart (%)	RPR reactive (%)	HIV (%)	Total STIs (%)
15 (3.1)	10 (2.0)	10 (2.0)	17 (3.5)	43 (8.8)	7 (1.4)	102 (20.9)

DISCUSSION

The incidence of many STIs in MSM including primary and secondary syphilis and antimicrobial-resistant gonorrhoea is greater than that reported in women and men who have sex with women only.⁷ In addition to the negative effects of untreated STIs, elevated STI burden is of concern because it may indicate high risk for subsequent HIV infection. Annual increases in reported sexually transmitted diseases cases could reflect increased frequency of behaviours that transmit both STIs and HIV (e.g., condomless anal sex), and having an STI increases the risk of acquisition or transmission of HIV.

According to the Centers for Disease Control and Prevention estimates, HIV and early syphilis rates among homosexual men are more than 40 times higher than those among heterosexuals.⁷⁻⁹ The relatively high incidence of STIs among MSM may be related to multiple factors, including individual behaviours and sexual network characteristics. The number of lifetime or recent sex partners, rate of partner exchange, and frequency of condomless sex each influence an individual's probability of exposure to STIs. However, MSM network characteristics such as high prevalence of STIs, interconnectedness and concurrency of sex partners, and possibly limited access to healthcare also affect the risk of acquiring an STI.

This study shows that socio-demographic characteristics and sexual behaviour of MSM correlate well with the other studies from India, done by Silan et al, Setia et al, Brahman et al and Garg et al.¹⁰⁻¹³ The maximum number of MSM belonged to the age group 21 to 30 years; majority of them were unmarried, finished secondary level of school education and were employed as unskilled labourers.

It was noted that a little more than half of the MSM were bisexuals (51.9%) and the rest were homosexuals (48.1%). In our study, it was found that under the age of 20 years of age, 61.3% of MSM had coital debut. Oral sex was practiced by more than two-third (77.1%) of MSM, anal sex by 69.5% and both oral and anal sex by 46.6%.

In the present study exclusive active sex (panthis- 50.7%) was found to be more than the exclusive receptive sex (kothis-15.8%) and both (double decker) were 33.5%.

Majority of the MSM, more than half (53.0%) never used condom during the sexual act, consistent condom use was present only in 18.2%, less than one-fifth of MSM and inconsistent condom use was present in 28.8%, the

findings were similar to the previous studies by Setia et al and Brahman et al.^{11,12} Condom usage found to be less with oral sex as they believed, unprotected oral sex was safe. In our study, the common reason for not using condom, were non-availability of condom, partner objection and reduced sexual pleasure. The other reasons were that they did not consider condom was necessary, the place was inappropriate, lack of awareness about condom and sex after alcohol.

STIs were seen in 20.9% of the MSM and syphilis was the most common STI present in 10.8%, which is comparable with the study done by Garg et al.¹³ Of a total of 53 patients with syphilis, 10 had primary syphilis, 12 had secondary syphilis and 31 were identified as latent syphilis during routine rapid plasma reagin screening. Genital wart was the next common STI seen in 3.5% of patients. 3.1% patients presented with genital herpes and urethral discharge in 2.0%. HIV serology was positive in 7 (1.4%) of patients.

CONCLUSION

Our study elucidated the high prevalence of STIs among MSM and increasing trends of sexual risk behaviour. Health service providers must take necessary steps to improve the provision of biological and medical measures to screen, treat and prevent infections.

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