Original Research Article

Prevalence of HIV infection among men who have sex with men (MSM) in Rohtak

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Abstract

Introduction: HIV infection among MSM has been increasing in recent years around the world, particularly in Asia. It is also a major cause of concern in many parts of India. HIV prevalence among MSM in India has not shown any noteworthy downward trend and still stands at 4.3% as per NACO annual report 2017-18.
Objective: To estimate HIV prevalence among MSM in Rohtak, Haryana.
Materials and methods: MSM were recruited using convenience sampling methodology. HIV testing of the MSM was done as per the National AIDS Control Organization (NACO) guidelines along with both pre and post-test counseling. Socio-demographic parameter of subjects was collected.
Results: Out of a total of 640 MSM who attended the Integrated counseling and testing centres (ICTCs), five i.e. 0.78% were found to be HIV positive. All HIV positive MSM belonged to the age group 25- 35 years. Out of a total of five HIV positive MSM, four were married.
Conclusion: There is an urgent need for special attention to this relatively hidden section of the society. Appropriate counseling on psychosexual and personal concerns, effective community based interventions and role of non-governmental organizations (NGOs) is needed to prevent further transmission of HIV infection in the community.

Key words

MSM, HIV prevalence, NACO, ICTC, NGOs.

Introduction

MSM are considered a high risk group for HIV infection in many countries. As per the Joint United Nations Program on HIV and AIDS (UNAIDS), prevalence of HIV infection among MSM in capital cities in about 80 countries is on an average 13 times higher as compared to

general populations in these countries [1]. According to NACO, Government of India, overall HIV prevalence among MSM is 4.3 percent, which in fact may be a lower-limit estimate as MSM mostly remain hidden section of the community. Social stigma and discrimination act as significant barriers making this group generally hard to reach. Moreover, outreach workers and peer educators working with MSM have frequently undergone harassment or arrest at the hands of policemen and other law enforcing authorities [2].

Indian MSM include self-identified gay men (Western acculturated), kothis (relatively well-organized men who tend to be the receptive partner in anal and oral sex and typically have more effeminate mannerisms), panthis (referred to as insertive male partner in both anal and oral sex), and double deckers (men who are both receptive and insertive partners). But in majority of these cases, same-sex behavior does not rule out the possibility of sex with women or getting engaged in traditional marriage. Thus, here we use the term "MSM" to denote behavior rather than a particular sexual identity [3].

Homosexuality was until now highly discriminated against in India, resulting in bisexual behavior becoming one of the biggest obstacles in implementing HIV/AIDS prevention and control measures among MSM. MSM in India, have experienced multiple forms of social and legal discrimination due to Section 377 of Indian Penal Code (IPC) which made sexual relations between two men a criminal offense. Although in 2009 the Delhi High Court overturned some portions of the 150-year-old section 377, but in December 2013 the Supreme Court of India again reversed it and effectively recriminalized adult consensual same sex sexual conduct (Civil Appeal no.10972 of 2013). Finally on 6 September 2018, Supreme Court of India ruled that the application of Section 377 to consensual homosexual sex between adults was unconstitutional, irrational, indefensible, arbitrary and incomprehensible.

Sexual transmission of HIV between men is a major cause for concern in most parts of India, with HIV prevalence being high among MSM in states such as Delhi, Maharashtra, Karnataka and Manipur. It is the pervasive social intolerance of homosexual behavior along with the cultural pressure for men to engage in heterosexual marital relations which has led many MSM to marry women and subsequently have children. As a result, MSM engage in unprotected vaginal and anal sex with both male and female sexual partners. Thus, MSM in India may play a "bridging" role in the spread of HIV into the general public [3]. Present study was aimed to assess the HIV prevalence rate in this region.

Objective

- To estimate HIV prevalence among MSM in Rohtak.

Materials and methods

The participants of this study were recruited using convenience sampling methodology during the year 2014. Random sampling wasn't employed since MSM are in general hard to reach because of the stigmatization associated with homosexuality. HIV testing of the MSM was done as per the NACO guidelines and results delivered with pre- and post-test counseling at ICTC clinic in the Department of Microbiology, PGIMS, Rohtak and in General Hospital Rohtak. Data related to socio-demographic characteristics of the clients, including age, level of education, marital status and occupation was recorded. Written informed consent was obtained from all participants prior to their enrolment in this study. Confidentiality of participants was maintained. Participants were offered free STI treatment, condoms and lubricants, spouse/ partner testing and HIV/AIDS brochures. Participants who tested positive were referred to antiretroviral treatment (ART) centres for further management.

Results

A total of 640 MSM attended the ICTCs out of which 5 (0.78%) were found to be positive. All HIV positive MSM belong to the age group 25-

44 years. About 56% of MSM in this study were married. Prevalence of HIV among MSM who were married was four times higher compared to MSM who were not married. Majority of HIV positive MSM were matric pass and were either professionals or skilled workers (**Table – 1**).

Table - 1: Socio-demographic profile of MSM.

Criteria	Variables	Total tested = N (%)	Positive = n (%)	P value (significant at P <.05)
Age	15-24	170 (26.5%)	0 (0%)	
	25-44	296 (46.25%)	5 (100%)	.056
	45-60	174 (27.1 %)	0 (0%)	
Literacy	Illiterate	58 (9.06%)	0 (0%)	
	Primary	112 (17.5%)	1 (20%)	
	Matric	138 (21.56%)	4 (80%)	.03(<.05)
	Secondary	180 (28.1%)	0 (0%)	
	Graduate & post graduate	152 (23.75%)	0 (0%)	
Marital status	Married	361 (56.40%)	4 (80%)	.289
	Unmarried	279 (43.59%)	1 (20%)	
Occupation	Unemployed	100 (15.62%)	1 (20%)	
	Student	250 (39.06%)	0 (0%)	
	Driver	15 (2.34%)	0 (0%)	
	Professional/ skilled worker	150 (23.43%)	3 (60%)	.295
	Labourer/ farmer	125 (19.53%)	1 (20%)	

*N indicates total subjects=640

**n indicates total Positive= 5

Discussion

In this study the prevalence of HIV among MSM was 0.78%. HIV prevalence among MSM in India still stands at 4.3% as per NACO annual report 2017-18. Globally, the prevalence of HIV among MSM is high, with reported prevalence rates ranging between 3% and 25%. Prevalence rates are particularly higher in the countries of Sub- Saharan Africa, North, Central, and South America, Caribbean and East Asia as compared to Europe, North Africa, Middle East, and Central Asia, where the prevalence rates have been reported to be less than 10% [4]. The prevalence of HIV infection among MSM in a study in Istanbul was 12.7% [5]. In a study in southwest of China, total of 1,245 MSM were tested for HIV, out of which 264 were HIV-positive. The total antibody positive rate was 21.20% [6]. Many factors, including paucity of well-designed studies, selection bias, social barriers to governmental/ non-governmental surveillance programs in specific regions and region-specific attributes such as social discrimination prevent reliable access to target populations, make it herculean task to perform meaningful direct comparisons between various studies examining the prevalence of HIV among MSM.

In this study all HIV positive MSM were in the age group 25-44. In study by Ye at al roughly 51% HIV positive MSM were in age group 26-39 and 24% were above 40 years of age [6]. Data suggest that in some regions of the world, including Europe, in contrast to the decline in HIV in the older MSM age groups (particularly those aged between 30 and 39 years), cases have doubled since 2003 in those aged between 20 and 29 years [5]. Majority of HIV prevention programs are geared towards adults and older men considering that older MSM are more likely to have had more lifetime sexual contacts, and are therefore more likely to have been exposed to HIV [7]. But MSM tend to be driven into sex

during early years of their lives and therefore early life interventions may be helpful in enabling youth to develop stable adult sexual identities. Finding different ways to address young boys on diverse psychosocial and sexual orientation aspects, might help boost HIV prevention strategies leading to an overall reduction in HIV risk. In our study four out of five HIV positive MSM were matric pass. Ye at al reported that 54.55% of HIV positive MSM were either junior or senior high school pass outs [6].

Out of total five positive MSM in this study four were married. Giri M, Ye M in their study mentioned that 40 % HIV positive MSM were married [6]. Higher prevalence of HIV infection among MSM who were married could partially be explained by their nature to keep secret their same sex practices. Consequently, they ended up having more male partners, which has been shown by many studies to be a strong risk factor for HIV transmission. In a study from Bangalore [8] among 357 MSM, 41 % reported sex with woman in the past year while 14 % were currently married. Condom use was very inconsistent with all male partners, while 98 % reported unprotected vaginal sex with their wives. Similar findings were seen in our study. These findings are consistent with other research findings from India, with the proportions of MSM currently married to women ranging from 23 to 42% [3, 9]. High HIV prevalence among MSM, coupled with low condom use and increased transmission efficiency of anal sex, means that the contribution of men who have sex with men and women (MSMW) to the HIV epidemic, through transmission to their female sexual partners, could be substantial [3, 8]. In our study three out of total five HIV positive MSM were professionals. Whereas in study among MSM in China 81.44 % of positive clients were employed [6].

Studies have reported that the reasons for continued sexual risk taking mind-set among MSM in India include (i) perception that HIV is only transmitted through vaginal sex and via sex workers only, resulting in individuals engaging in alternate anal and oral unnatural sexual practices as a way to avoid infection, (ii) social stigma and denial linked to same sex behavior resulting in anonymous, one-off sexual encounters [3, 10].

Limitations

Our research had several limitations. Firstly convenience sampling provides insufficient power to detect differences within socio-demographic subgroups and provides estimates which lack generalizability to any identifiable sample target population or subpopulations (except for the sample studied). Thus, our results may not be generalized due to absence of a randomly selected group since we employed cross-sectional design and a small sample at one site in Rohtak, Haryana. Further studies should utilize random driven sampling (RDS) at different sites in order to engage more participants.

Also since MSM are a more social vulnerable group many of them might not have turned up in order to keep their same sex practices as secret. But the present ruling by Honorable Supreme Court of India decriminalizing section 377 will in future go a long way in helping this, until now so called deprived section of society to voluntarily avail free Government health care services.

Conclusion

There is an urgent need for special attention to this relatively hidden section of the society. Appropriate counseling on psychosexual and personal concerns, safe sex behavior, consistent condom use, maintaining confidentiality of MSM behavior and HIV status, effective community based interventions and role of non-governmental organizations (NGOs) are required to prevent the further transmission of infection in the community. NGOs should also involve MSM in decision making processes. Organizations involved in HIV prevention interventions need the co-operation of police and other local government institutions to ensure the safety of

outreach workers and MSM who may otherwise avoid program participation due to fear of harassment. HIV prevention interventions typically require more than education, although education also is an essential component.

Abrogation of Section 377 will help to bring forward this hidden section of society, thereby contributing in government policy making for their overall upliftment in family and society. It will also encourage them to avail health services both preventive and curative.

Recommendation

Specific prevention strategies targeting MSMW should be developed from the following three aspects. First, strategies focusing on increasing HIV/STIs screening programs among` MSMW subpopulations to help them know their current HIV status. Secondly, early ART initiation for HIV positive to improve the quality of MSMW's lives and decrease their HIV transmission risk in community. Additionally, it is essential to actively advocate for the self- respect and the constitutional right of expressing themselves, of people with bisexual and homosexual orientations.

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