HIV, social networks and sex seeking behaviors of men who have sex with men

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Background: The Internet has been identified as a newly emerging risk environment for HIV and other sexually transmitted infections. Internet, dating sites and other web based community networks are becoming popular for seeking sexual partners in Sri Lanka.

Objective: To identify the behavioral pattern of MSMs who seek their sexual partners through internet.

Method Four hundred Sri Lankan MSMs recruited by systematic sampling method, completed a self-administered questionnaire online, accessed through internet chat rooms and profiles on social networks.

Results: The sample was predominantly young and the mean age was 26.2 years (95%CI=25.1-26.9). They had mean number of 8.9 (SD=21.1) non regular encounters with partners who were contacted through the Internet and 12.7 (SD=2.5) regular encounters during the previous year and 67% of them had sexual intercourse with female partners. 9.1% (95%CI=3.2-10.7) reported symptoms of STI.

Conclusion: The partners on the Internet were engaged in high risk sexual encounters. The Internet provides a great opportunity to understand the current trends and enables health promotion among this hidden population.

Introduction

The Internet, more specifically dating sites and other web based community networks widely used for seeking sexual partners. [1-2] Men who have sex with men (MSM) seek sexual partners through the Internet and therefore the Internet has been identified as a newly emerging risk environment for HIV and

transmission of other sexually transmitted infections [1-2].

Research conducted in the Australia, United Kingdom, United States and Netherlands among gay men has shown a positive association between seeking sex on the Internet and high-risk sexual behavior. Men who seek sex on the Internet are more likely to report high-risk sexual behavior or a history of sexually transmitted disease than men who do not seek sex in this way [5-10]

The Internet offers a limitless supply of potential respondents for researchers wanting to conduct web-based research. [8] With up to 972 million individuals worldwide accessing the Internet each day (15.2% of the world population), it has become an important part of daily life in many countries. In North America 68.2% access the Internet regularly, the rate is 52.9% in Australia and 35.5% in Europe.[8] MSM are avid users of the Internet for sexual purposes because of the perceived anonymity, the availability of partners, and less discrimination and stigmatization of homosexuality in an online setting.[9, 10] A survey in London gyms showed that around one-third of 601 MSM with access to the Internet had sought sexual partners via the Internet in 2002; three years later this figure had increased to more than 50%.[6] Furthermore, half of them indicated that they preferred to meet partners through the Internet rather than in bars or other offline venues.[6]

Seeking sex has become an important reason for using the Internet for MSM. An American study of clients attending STD clinics found that Internet sex seekers were more likely to be men and homosexual.[11] Another large study in North America (4507 Internet users) found that those who had sought sexual partners through the Internet were

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more likely to be male and have same or both sex partners.[12]

In China, there were more than 250 Chinese websites dedicated to gays, lesbians, and bisexual people (gay websites) in 2001.[13] By the end of 2004, the number of people accessing broadband connections increased to 94 million, which represents an increase of 18.2%, or 14.5 million new users compared with 2003.[14]

With more and more MSM seeking sexual partners through the Internet, the Internet has been characterized as a “new emerging risk environment for HIV/AIDS” for MSM.[11, 15] Nearly all relevant studies suggest that MSM who seek sex through the Internet are at a higher risk for STDs/HIV than those who do not, although the elevated risk associated with sex-seeking on the Internet is measured by a variety of indicators depending on different research designs and methods.

Internet sex seekers are more likely to have an STD history,[11, 16] practice unprotected anal intercourse [6, 15, 17] and have a higher number of sexual partners[6] Although current studies cannot provide solid evidence to clarify the causal relationship between using the Internet and higher risk sexual behavior, the results do indicate that the Internet has become a new risk venue for MSM and an avenue for risk surveillance.

Methodology

From April 2011, gay/bisexual men using Sri Lankan chat rooms and personal profiles on yahoo.com, Gaydar, gay.com and Face book were invited to complete a confidential, anonymous self-administered questionnaire online.

For a 1-month period, a series of pop-ups and banners in the chat rooms and profiles pages advertised the online survey. Clicking on a pop-up or banner took men to the home page of the questionnaire, which took between 15-30 minutes to complete.

Men were asked to provide information on their age, ethnicity, employment, and education. They were also

be asked about their sexual orientation, HIV test history (date and result of last test), recreational drug use, and use of the Internet to look for sex, unprotected anal intercourse (UAI) in the previous 3 months, and the HIV status of their UAI partner(s). High-risk sexual behavior was defined as UAI with a discordant partner (with a person of opposite HIV status) or with a partner of unknown HIV status. Men surveyed online were also being asked whether they had completed a questionnaire 2 months earlier online. The questionnaire did not include the name or any other identification tags. All the study profiles, completed questionnaires or responses and data sets were only handled by the investigators.

At the end of the data collection process the created study profiles were deleted from websites after posting a notice of acknowledgment to all the study participants.

Sample size

Considering the prevalence of the condition unknown (Absence of previous prevalence studies among face book website users) we will use 0.5 as the proportion and the sample size calculated as 384 approx. This was a random sample.

Ethical approval obtained from the Human Research Ethics Committee of the University of Sydney, Australia.

Results

The sample was predominantly a young and the mean age was 26 years (95%CI=25.1-26.9) Marriage seems to be uncommon and 76% of them were single.

The majority of participants were educated to up grade 11 and above (96%). 3.7% were HIV-positive, 32.5% HIV-negative and 54.8% had never been tested for HIV.

42% of the participants were bisexuals and the rest were gay oriented MSMs. Of the MSMs who identified themselves as bisexuals, 85.8% of them had sexual intercourse with female partners during

last 12 months. They had mean number of 4.8 (SD=6.7) non regular partners and 1.05 (SD=0.26) regular partners. Consistent condom use was 20.8% with non regular female partners and 2.4% with regular female partners.

34% of the gay oriented MSMs were passive, 46% were active in terms of anal penetration. Rest was versatile.

Majority reported sexual debut during 11-17 years of age (91.1%) with a male partner (87.2%). Condom use with first sexual intercourse was significantly low (2.2%). 356(89%) respondents reported actual encounters and sexual intercourse with "Net partners". Almost 69% of the respondents reported unsafe sexual behaviors with partners contracted through internet. 61% reported unprotected anal intercourse. They had mean number of 8.9 (SD=21.1) non regular encounters and 2.7 (SD=2.5) regular encounters during the previous year with "net partners".

HIV-positive MSMs were significantly more likely to have used the Internet to seek a sexual partner than other partner seeking methods ($P < 0.01$). MSMs were more likely to report high-risk sexual behavior with online partners than offline partners ($P < 0.001$). Consistent condom use was 15.1% with "Net partners" and 46.5% with regular partners.

Only 9.1% (95%CI=3.2-10.7) reported symptoms of STI. Urethral discharge (4.6%), genital warts (2.5%) and genital ulcers (2.0%) were the common. Only 21% of participants were aware of existing STD services and out of them 84% were from the Western Province. The majority (71%) still prefer to take treatments from unskilled persons.

Discussion

This is the first report from the Sri Lanka of an association between seeking sex on the Internet and high-risk sexual behaviour among gay men, previously described in the USA. It was not possible in our study to establish whether the excess risk for HIV and STD

occurred with sexual partners whom respondents had met through the Internet.

This clearly merits further investigation. The possibility that HIV-positive men may use the Internet to seek unprotected anal intercourse with other HIV-positive men also requires further exploration.

Seeking sex on the Internet was associated with high-risk sexual behaviour and recent STD among HIV-positive and negative gay men in Sri Lanka. For HIV-negative men, the increased sexual risk was predominantly with a casual partner of unknown HIV status. This is an established risk for the transmission of HIV and STD, as reflected by the elevated prevalence of STD among HIV-negative men seeking sex on the Internet.

For HIV-positive Internet sex seekers, elevated risk behaviour was predominantly with a casual partner of the same HIV status. This raises the possibility that HIV-positive men are using the Internet to meet other positive men for unprotected sex. Although this presents no risk of HIV transmission to an uninfected person, it has important implications for the health of the HIV-infected men themselves.

The fact that seeking sex through the Internet prompt an increase in high-risk sexual behavior and individuals with a high-risk profile who use the Internet to find sexual partners needs to be further evaluated. Clearly the Internet has an important role to play in promoting risk reduction and harm minimization practices among people who seek partners on the Internet.

The potential for using the Internet for HIV and STD prevention is further supported by the fact that Internet sex seekers (HIV-negative and never-tested) were more likely to have also used the Internet to get information on HIV and sexual health services than other men with Internet access.

Conclusion

The majority of MSMs who seek sex through internet were unmarried educated youth who have low level

of knowledge on existing sexual health services. They have significantly high level of HIV risk behavior with low level of consistent condom use.

Recommendations

We recommend a comprehensive study among online partner seekers and off line partner seekers. We also recommend extensive interventions to be done on MSMs to evaluate their behavioral risks, expand safe sex promotions on social networks and the social marketing of sexual /STI health services.

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