

ORIGINAL ARTICLE

UNSAFE SEXUAL BEHAVIOUR AMONG HIV-POSITIVE MSM PARTICIPATING IN COMMUNITY-BASED TREATMENT ADHERENCE PEER SUPPORT PROGRAM

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ABSTRACT

This study aims to investigate the unsafe sexual behaviour among HIV-positive men who have sex with men (MSM) participating in community-based Treatment Adherence Peer Support Program (TAPS) based in Kota Kinabalu, Sabah. A cross-sectional study that involved 109 HIV-positive MSM was conducted using a validated questionnaire adapted from Integrated Biological and Behavioural Surveillance (IBBS) 2012, in two main languages which are Malay and English.¹ This questionnaire contained information on socio-demographic factors, respondents' sexual history since they were diagnosed with HIV, and participation with community-based TAPS. Among the total 109 respondents, 62.4% had stated that they had practised unsafe sexual behaviour since they were diagnosed with HIV. Prevalence of self-reported Sexually Transmitted Infections (STIs) was 24.8%. About 92.7% of participants were on highly active antiretroviral therapy (HAART) and had achieved 96% of compliancy. Prevalence of unsafe sexual behaviour differed significantly between respondents on HAART (66.3%) compared to the non-HAART group (12.5%) ($\chi^2 = 7.005$, $p < 0.01$). Duration of last participation in the TAPS program significantly associated with unsafe sexual behaviour ($\chi^2 = 16.96$, $p < 0.01$). There is a high prevalence of unsafe sexual behaviour and self-reported STIs among HIV-infected MSM. Participation in TAPS resulted in a higher percentage of HAART coverage and the compliancy among the respondents; however, the prevalence of unsafe sexual behavioural remains high. The study findings highlight the importance of regular STIs screening among HIV-infected MSM.

Keywords: Men who have sex with men (MSM), HIV-infected MSM, Treatment Adherence Peer Support Program (TAPS), unsafe sexual behaviour

INTRODUCTION

Since the beginning of the HIV infection epidemic, about 70 million people were already infected with 35 million deaths which led to around 36.5 million persons living with HIV (PLHIV) by end of 2015.² The first HIV case reported in Malaysia was in 1986.³ Since then, HIV has become a serious health problem and challenges for the country's development.³ At the beginning of the epidemic, the main mode of transmission for HIV was through injecting drugs such as Intravenous Drug User (IVDU).⁴ Hence, early screening for HIV focused more on prisoners and drugs rehabilitation centre.⁴

Malaysia was estimated to have 91,848 PLHIV at the end of 2015.⁵ Throughout the years, Malaysia has achieved a significant level of advancement in biomedical and behavioural modification which led to reducing the numbers of PLHIV to almost half from 28.4 to 11.7 cases per 100,000 populations in 2014.⁵ However, the trend of HIV mode of transmission has changed from injecting drugs to sexual activities especially homosexual and bisexual. The key populations (KP) that pose the infection rate of HIV above 5% include

transgender (TG), male who have sex with male and female sex workers (FSW).⁶ In estimation, 173,000 MSM living in Malaysia with the prevalence of HIV infection at 7%. Hence, as the transmission trend of HIV among MSM is increasing to 19%, effective and efficient responses to minimize the risk and outcomes associated with HIV infection amongst MSM need to be taken seriously and urgently.⁶ Studies carried out among MSM discovered that there were a few significant factors which influenced HIV transmission. Reduction in the self-esteem and increment in the sexual compulsivity will affect MSM to engage in unsafe sexual behaviour.⁷ The pattern among MSM with multiple sexual partners and inconsistent condom use contributes to the increasing trend on the prevalence of HIV infection among MSM.⁷

In Sabah, the prevalence of HIV among MSM in 2012 was 1.3% but subsequently, it went up to 3.1% within two years in 2014.¹ During the same period, the percentage of condom use among MSM was also in a decreasing trend from 72.5% to 46.2%.⁸ The percentage of MSM who tested for HIV and knew their status have also decreased from 55.4% to 33.7%.⁸ All these trends contribute to the increasing of the prevalence of HIV among MSM.⁵

Due to the stigmatization and disclosure of the sexual preferences among MSM, their population can be better approached by the community-based support. In an effort to improve linkages to care and health services and adherence to antiretroviral therapy (ART), Treatment Adherence Peer Support Program has been established (previously Hospital Peer Support Program). This program envisaged that early exposure of HIV infection coupled with information and education about antiretroviral treatment and adherence, emotional management, and healthy living with HIV could mark a decrease onward HIV transmission.⁸ The Treatment Adherence Peer Support Program (TAPS) aims to improve treatment adherence among PLHIV on Highly Active Antiretroviral Therapy (HAART) by providing information regarding treatment adherence and psychosocial support.⁹ TAPS programs will give the latest information regarding HIV/AIDS, safe sex practices, nutrition, and offer positive support to their new clients with HIV/AIDS. Therefore, it is anticipated that this study can investigate and assess the unsafe sexual behaviour among HIV-positive MSM participating in community-based TAPS based in Kota Kinabalu, Sabah.

METHODS

This cross-sectional study involved a total of 109 respondents in Kota Kinabalu, Sabah. They were homosexual or bisexual men with HIV-positive status, aged 18 years old and above, and were registered with community-based TAPS based in Kota Kinabalu, Sabah. A questionnaire was designed based on IBBS 2012 and 2014, but it was translated and adapted for socio-demographic competence in Sabah.¹ A closed ended questionnaire with face-to-face interview was conducted by trained interviewers from community-based volunteers. This questionnaire contained five sections. The first section was on socio-demographic factors such as age, marital status, education level, profession, and monthly income. The second section was respondent's sexual history since they were diagnosed with HIV. Unsafe sexual behaviours include practising unprotected sex, inconsistent condom use, having sexual intercourse with an HIV-positive partner, or having multiple sexual partners including casual partners and practising group sex even after diagnosed with HIV. The third section of the questionnaire was on the HAART coverage and compliancy. The fourth section was about the sexually transmitted infections (STIs) since diagnosed with HIV. The fifth section was on their engagement with community-based support programs. From the second till the fifth section of the questionnaire, questions were regarding the respondent's history since they had been diagnosed with HIV. Data were analysed using SPSS Version 22.0. Both descriptive and inferential statistical methods were used. Univariate and bivariate analysis (χ^2) were carried out with p -value significant if $p < 0.05$. This study obtained ethical clearance from the University

Malaysia Sabah Medical Ethic Research Committee - JKEtika 1/17(6). The study purposes were explained to each participant. A consent form written in two languages: in English and Malay, was provided to the participants and the participants were ensured to understand the contents of the consent form before giving their approvals.

RESULTS

In this study, the age range of the 109 respondents was from 18 to 54, with 63.3% was from 26 to 40 years old. Half of the respondents acquired tertiary educational level and majority of them were unmarried, while others were either divorced, separated, or staying with a male partner. More than half of the respondents reported they practised unsafe sexual behaviour including unprotected sex, inconsistent condom use, having sexual intercourse with an HIV-positive partner, or having multiple sexual partners including casual partners, and practising group sex even after diagnosed with HIV. A majority of the HIV-positive MSM were homosexual (75.2%) and bisexual (24.8%). Few of them never had sex since they had been diagnosed with HIV (26.6%). About 71.3% reported having permanent partners, with 42.1% of their permanent partners as HIV carrier too. Among the high-risk group, 36.8% continued to have sexual relationship with HIV-negative partners, while the other 21.1% were not aware of their permanent partners' HIV status. Out of the total of 109 respondents, 24.8% had been diagnosed with STIs. Most frequent symptoms found among the participants were dysuria, followed by penile ulcer and anal ulcer.

The age group of the respondents was significantly associated with sexual behaviour, as 83.3% of the MSM involved in unsafe sexual behaviour were between 35 to 44 years old. Even though the association between marital status and unsafe sexual behaviour was insignificant, the result showed that all the married MSM were practising unsafe sexual behaviour. About 92.7% of the respondents were already on HAART; which showed 96% of compliancy was achieved. For those MSM diagnosed with HIV but not on HAART, most of them were in the process of physician consultation and some opted for alternative treatment. The reasons for non-compliance to HAART were reported as loss of interest with the treatment despite explained properly about the objectives of the treatment by physician. The prevalence of unsafe sexual behaviour differed significantly between respondents on HAART (66.3%) compared to the non-HAART group (12.5%) ($\chi^2 = 7.005$, $p < 0.01$) which means that taking HAART has significant association with unsafe sexual behaviour. TAPS program was organized by volunteers of a community organisation based in Kota Kinabalu. All participants were recruited by medical personnel referral, approached by community volunteers, introduced by friends, and via social media. The reasons of enrolment into

this community-based HIV intervention program were reported as due to medical personnel's influence, program staff's (volunteers) influence, peer influence, and the respondents' intention for seeking support and counselling. Almost 80% of the respondents had registered under TAPS for more than 12 months. Among all respondents, 52.3% have mentioned that the topic discussed in the program included the treatment adherence for HAART. Around 51.4% of the respondents have last participated in the group discussion by TAPS program coordinator within 12 months and below, while 12.8% have participated in more than 12

months ago. Almost all (92.9%) who have participated in TAPS programs for more than one year ago were engaged in unsafe sexual behaviour. Even among the HIV-positive MSM participants who have just attended TAPS program in the last three to six months, only half of them (45.2%) refrained from unsafe sexual behaviour practise, which is not much of a difference from those who have never attended any TAPS programs (51.3%). The association of duration since last TAPS participation against unsafe sexual behavioural practice is significant ($\chi^2 = 16.96, p < 0.01$).

Table 1. Socio-demographic factors, characteristics of sexual behaviour and self-reported STIs

Characteristic	n (%)	Mean
Age (year)		33.6
Marital Status		
<i>Married</i>	3 (2.8)	
<i>Unmarried</i>	101 (92.7)	
<i>Divorced</i>	3 (2.8)	
Nature of Job		
<i>Professional</i>	12 (11.0)	
<i>Non-Professional</i>	42 (38.5)	
<i>Self Employed</i>	33 (30.3)	
<i>Unemployed</i>	18 (16.5)	
<i>Student</i>	4 (3.7)	
Unsafe Sex		
<i>Yes</i>	68 (62.4)	
<i>No</i>	41 (37.6)	
Sexual Orientation		
<i>Homosexual</i>	82 (75.2)	
<i>Bisexual</i>	27 (24.8)	
Had sex after diagnosed HIV		
<i>Yes</i>	80 (73.4)	
<i>No</i>	29 (26.6)	
Had male permanent partner (N=80)		
<i>Yes</i>	57 (71.3)	
<i>No</i>	23 (28.7)	
Male Permanent Partner HIV status (N=57)		
<i>Positive</i>	24 (42.1)	
<i>Negative</i>	21 (36.8)	
<i>Don't know</i>	12 (21.1)	
Condom use with permanent partner (N=57)		
<i>Yes</i>	20 (35.0)	
<i>No</i>	37 (65.0)	
Had male casual partner(s) (N=80)		
<i>Yes</i>	30 (37.5)	
<i>No</i>	50 (62.5)	
Condom use with casual partner(s) (N=30)		
<i>Yes</i>	20 (66.7)	
<i>No</i>	10 (33.3)	
Engaged in group sex (N=80)		
<i>Yes</i>	12 (15.0)	
<i>No</i>	68 (85.0)	
Sexually Transmitted Diseases		
<i>Yes</i>	27 (24.8)	
<i>No</i>	82 (75.2)	
STIs Symptoms (N=27)		
<i>Dysuria</i>	17 (15.6)	
<i>Penile ulcer</i>	9 (8.3)	
<i>Anal ulcer</i>	5 (4.6)	
<i>Urethral discharge</i>	4 (3.7)	
<i>Anal discharge</i>	2 (1.8)	

Table 2. Characteristic related to unsafe sexual behaviour

Characteristic	Unsafe Sexual Behaviour, n (%)		χ^2	p
	Yes	No		
Age (year) [#]			11.15	0.01*
18 to 24	8 (57.1)	6 (42.9)		
25 to 34	24 (49.0)	25 (51.0)		
35 to 44	30 (83.3)	6 (16.7)		
45 to 54	6 (60.0)	4 (40.0)		
Marital Status [#]			2.80	0.74
Married	4 (100)	0 (0.0)		
Unmarried	62 (60.8)	40 (39.2)		
Divorced	2 (66.7)	1 (33.3)		
Nature of Job [#]			5.38	0.15
Professional	5 (41.7)	7 (58.3)		
Non-Professional	28 (66.7)	14 (33.3)		
Self Employed	24 (72.7)	9 (27.3)		
Unemployed	11 (50.0)	11 (50.0)		
On HAART			9.16	0.00*
Yes	67 (66.3)	34 (33.7)		
No	1 (12.5)	7 (87.5)		
Non-compliant [#] (N=101)			1.23	0.38
Yes	3 (75.0)	1 (25.0)		
No	64 (65.9)	33 (34.1)		
Last participation TAPS program (months)			16.96	0.00 [#]
3 to 6	14 (45.2)	17 (54.8)		
6 to 12	21 (84.0)	4 (16.0)		
>12	13 (92.9)	1 (7.1)		
Never Participate	20 (51.3)	19 (48.7)		

*Significant level at $p < 0.05$, χ^2 test, [#]Significant level at $p < 0.05$, Fisher exact test

DISCUSSION

The age of the respondents presented a significant association with sexual behaviour. Majority of the respondents aged between 35 to 44 were involved in unsafe sexual behaviour. The obtained result of the age distribution is quite different from that of Thailand's, where the majority of MSM was below 29 years old.¹⁰ The age distribution of MSM in Thailand is younger than in Malaysia and it might be due to the advancement in tourism and entertainment sectors in Thailand. Half of the respondents had acquired tertiary educational level. The finding is similar to a study conducted in China, where 48.2% of the MSM had reached college or university level of tertiary education.¹¹ Furthermore, the total employment (79.8%) is higher than in the United States of America (63.9%) and lower than South Africa (88.3%).¹² Most of the HIV-positive MSM were unmarried, while others were either divorced, separated, or staying with a male partner. The main reasons for getting married were reported as to satisfy their parents' request and to have their own children. Even though the association between marital status and unsafe sexual behaviour is insignificant, the result shows that all of those who were married involved in unsafe sexual behaviour. The prevalence of unsafe sexual behaviour among HIV-positive MSM in Sabah is

considerably quite high when compared with the prevalence of unsafe sexual behaviour concluded via meta-analysis done in the USA (43%).¹³ It might be due to the lack of awareness and lack of perceived severity living with HIV, perceived possibility to be re-infected with another strain of HIV, and perceived risk of infected with STIs. Thus, further research on their perception towards HIV and unsafe sexual behaviour should be done. A specific health awareness program also should be given in promoting better awareness about HIV and importance of practicing safer sexual behaviour among HIV positive MSM.

As for the STIs prevalence among HIV-positive MSM in Sabah, the percentage is 24.8% and similar to 21.8% of STIs prevalence among HIV-positive MSM in the USA.¹⁴ The high percentage in HAART coverage and compliancy among the respondents can be due to the participation in the TAPS programs. The study results indicate the similar prevalence of unsafe sexual behaviour practice among those who have just attended TAPS program in the past three to six months and those who have never attended TAPS.

CONCLUSION

There is a high prevalence of unsafe sexual behaviour and self-reported STIs among the HIV-positive MSM. The participation in TAPS resulted

in a higher percentage of HAART coverage and the compliancy among the respondents; however, the prevalence of unsafe sexual behavioural remains high. The community-based TAPS should highlight the importance of regular STIs screening and strengthening the program on behavioural risk assessment among HIV-positive MSM on HAART in Sabah.

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Conflict of interest

The authors declare no potential conflict of interest.

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