

FACTORS RELATED TO UNPROTECTED SEX IN MEN HAVING SEX WITH MEN (MSM) IN MANDALAY, MYANMAR

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ABSTRACT: This cross sectional survey was conducted to study the factors related to unprotected sex among Men Having Sex with Men (MSM) in Mandalay city, Republic of Union of Myanmar. Mandalay city was selected by using purposive sampling method, face to face interview and MSM were identified by using Snow ball sampling methods. The results revealed that among three kinds of 309 of respondents, 17.5 % was *Apone* (Masculine MSM), 62.1 % was *Apwint* (Feminine MSM) whereas 20.4 % was *Tha Nge* (Bisexual). Out of 309 respondents, 55.7% worked as Nat-Kadaw (Spirit medium) and worked in fashion sectors. Always condom use for anal sex with partner in the past 4 months was only 56.6%. In bivariate analysis, the results showed that age at first anal sex with a man was positively associated with condom use for anal sex with partner in the past 4 months ($p < 0.001$) and used condom more as age older.

Keywords: Unprotected Sex, Condom use, MSM, Mandalay, Myanmar

INTRODUCTION

HIV/AIDS is the widely spread communicable disease and major public health problem of the world. Men who have sex with men (MSM), also known as males who have sex with males) are male persons who engage in sexual activity with members of the same sex, regardless of whether or not they have sex with women or have a personal or social gay or bisexual identity [1]. There is around a one-in-five odds ratio (18.7%) of being infected with HIV among men who have sex with men in Asia [2]. In the southern states of India, HIV prevalence among MSM increased between 2003 and 2007 in the sentinel sites in Karnataka (from 10.8% to 17.6%, respectively) [3]. In Thailand, HIV prevalence ranged from 17.3% in 2003 to 30.8% in 2007 [4].

A concentrated HIV epidemic occurs in Myanmar among men who have sex with men (MSM), female sex worker (FSWs) and people who inject drugs (IDUs). Among the three most-at risk groups, HIV prevalence of MSM were raising to 28.8% (second highest) which was reported in 2008. This was the generally higher than the national HIV prevalence (0.63%) among adults aged 15-49 years. The highest prevalence (37.5%) was found among IDUs and 18.4% among FSWs [5]. A study conducted among 828 MSM in Myanmar, 26.2% reported ever having had an STI; and 11.8% reported STI-related symptoms in the past three months according to a

recent unpublished report. Syphilis prevalence among MSM was reported at 14.1% the highest among all the most-at-risk population groups in 2008 by HIV serosurveillance survey. The reported use of condom and lubricant is low, increasing the risk of getting HIV/AIDS and condom breach. Another reason for low condom use is that there are only few organizations that provide preventive and care services for MSM are difficult to reach [6].

MATERIALS AND METHODS

Data Collection Process

Mandalay with its seven townships was chosen by purposive sampling due to its high prevalence of HIV among MSM. Only MSM living in Mandalay and aged among 15-50 who were willing to participate were used in this study. The MSM respondents were selected by using a snow ball sampling technique. Sample size was 309. The head of the Mandalay based MSM support group "The Help" has already informally contacted and explained the research to one or two MSM in each of the seven townships and the initial MSM to be interviewed were not randomly chosen. These initial MSM already contacted by the head of the MSM support group have, in principle, agreed to present themselves to researcher to learn about the study objectives and design and upon this information to decide whether or not to consent to participate to the study. After they gave consent the researcher interviewed them using the questionnaire to collect the desired data. These initial MSM had

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Table 1 Socio-demographic characteristics, sexual history of respondents (n=309)

Socio-demographic Characteristics	Number (n)	Percentage (%)
Marital status		
Never married	287	92.9
Currently or formally married	22	7.1
Occupation		
Jobless	55	17.8
Nat-Kadaw (Spirit medium)	32	10.4
Work in fashion sector	140	45.3
Others	82	26.5
Kind of MSM		
<i>Apone</i> (Masculine MSM)	54	17.5
<i>Apwint</i> (Feminine MSM)	192	62.1
<i>Tha Nge</i> (Bisexual)	63	20.4
First anal sexual intercourse with a man using condom (n = 309)		
Yes	74	23.9
No	235	76.1
Drinking alcohol before sex (n = 309)		
Yes	54	17.5
No	255	82.5
Kind of lubricants commonly used during anal sex (n = 257)		
Water based gel	179	69.6
Saliva	78	30.4

also in principle agreed to serve as seed persons, to help identify other MSM to be included in the sample and to invite new MSM who agree to report to the researcher. The 'seeds persons' recruited a maximum of three more MSM in order to minimize their influence on the final sample composition. Limiting to three the number of MSM a seed person recruited expands the recruitment chains and increased the 'reach' of the sample into more hidden pockets of MSM. Every recruited MSM were offered the chance to answer the questionnaire and to act as seed person however he chose to answer the questionnaire only and did not act as seed person if he preferred to do so. Each seed person in turn was asked to introduce other MSM and the process continues until the target sample size of 309 has been reached.

Data Analysis

The factors which were influencing in unprotected sex, mean and standard deviation with the help of percentage was calculated for the continuous data and mode, percentage and frequencies was calculated for categorical data and described by table. Simple logistic regression analysis was adopted in the stage of bivariable analysis in order to select appropriate independent factors for further binary logistic analysis. At this stage, the significant value of 0.25 is applied. To further indicate factors independently associated with the outcome and to identify the relative importance among determinants, binary logistic regression analysis using 'backward

Wald' stepwise method was used at significant level of 0.05 [7].

Ethical consideration

The approval of research was taken from the College of Public Health Sciences, Chulalongkorn University ethical consideration board. The written informed consent was provided and contained the information which include confidentiality, free participation, freedom to withdraw and no use of data for other purposes and will assure anonymity.

Limitation of study

MSM people in Myanmar are not as like as the other general people because they are not exposed as the MSM due to cultural and social barrier. They felt shy when answering the questionnaires so that the researcher could not get the whole information from them. The researcher interviewed only 309 MSM from network of MSM in Mandalay, so the result of this study could not be generalized as the whole nations MSM.

RESULTS

Table 1 shows about the socio-demographic characteristics of the respondents in Mandalay, Myanmar. Almost all of the participants were never married with 92.9%. As for the education status, more than half of the respondents, 52.2% were in the high and University level of education. A high percentage of the participants, 55.7% worked as Nat-Kadaw (Spirit medium) and worked in fashion

Table 2 Respondents by condom use for anal sex with any partner in the past 4 months (n=309)

	Frequency (n)	Percentage (%)
Condom use for anal sex with any partner in the past 4 months(n = 309)		
Always	175	56.6
Almost always	90	29.1
Half of the time	10	3.2
Some of the time	29	9.4
Never	5	1.6

Table 3 Association between Socio-demographic characteristics, sexual history and condom use for anal sex with any partner in the past 4 months

Variables	Condom use for anal sex with any partner in the past 4 months			
	B	S.E	Crude OR (95% CI)	p-value
Marital status				
Never married			1 (ref:)	0.019*
Currently or formally married	-1.107	0.473	0.33 (0.13 - 0.84)	
Occupation				
Jobless			1 (ref:)	0.011*
Nat-Kadaw (Spirit medium)	-0.856	0.466	0.43 (0.17 - 1.06)	0.066
Work in fashion sector	-0.635	0.348	0.53 (0.27 - 1.05)	0.068
Others #	-1.226	0.376	0.29 (0.14 - 0.61)	0.001
Kind of MSM				
Apone (Masculine MSM)			1 (ref:)	0.685
Apwint (Feminine MSM)	0.262	0.309	1.3 (0.71 - 2.38)	0.396
Tha Nge (Bisexual)	0.149	0.372	1.16 (0.56 - 2.41)	0.689
First anal sex with a man using condom				
No			1 (ref:)	0.272
Yes	0.300	0.273	1.35 (0.79 - 2.31)	
Drinking alcohol before sex				
No			1 (ref:)	0.002*
Yes	-0.969	0.310	0.38 (0.21 - 0.7)	
Kind of lubricants commonly used during anal sex				
Water based gel			1 (ref:)	<0.001*
Saliva	-0.978	0.279	0.38 (0.22 - 0.65)	

#Others – waiter, dish washer, carpenter, shopkeeper and house painter

sectors. Other of 26.5 % is waiters, carpenters, shopkeeper, dish washer and painters. Among 309 of respondents, 17.5 % was *Apone*, 62.1 % was *Apwint* whereas 20.4 % was *Tha Nge* as kinds of MSM. Only 23.9% of the respondents had first anal sex with a man with condoms. 82.5% did not drink alcohol before sexual contact while 17.5% drank. Out of 309 respondents, 69.6% used water based gel and 30.4% used saliva as lubricants.

Table 2 shows more than half of the respondents, 56.6% always used condoms with any sexual partners in the past 4 months while 1.6% never used condom.

Table 3 shows that marital status was strongly associated with condom use for anal sex with partner in the past 4 months ($p = 0.019$). Condom use was higher in respondents who were never married than those who were currently or formally married. Similarly, occupation was significantly

associated with condom use ($p = 0.011$). Condom use was decreased in the other kinds of occupation in compared to Jobless. Drinking alcohol before sex was negatively and strongly associated with condom use for anal sex with partner in the past 4 months having p -value 0.002. Respondents who drank alcohol before sex used fewer condoms with their partners by 0.38 times. Kind of lubricants commonly used during anal sex was strongly associated with condom use ($p < 0.001$). Respondents commonly used saliva as lubricants for anal sex which used fewer condoms for anal sex with partner in the past 4 months than those who commonly used water based gel as lubricants.

There was no statistical significant association between dependent variable; condom use for anal sex with partner in the past 4 months and independent variables; kind of MSM and first anal sex with a man using condom.

DISCUSSION

The principal finding of the dependent variable indicates that always condom use for anal sex with any partner in the past 4 months was only 56.6%. Complete, correct condom use all the times is the only protective measure against HIV infection and other STI available to MSM in Myanmar at present. The fact that about 57% of MSM in Mandalay use condoms all the times explains the reason for high HIV prevalence among them as reported in National AIDS Programme (NAP) [50% HIV prevalence among “*Apwint*” (Feminine) and 20% among “*Apone*” (Masculine)]. This study has not specifically investigated the reason for non condom use in the sample population; however, NAP again reports that non availability is the main reason for no condom use [6].

During this research informal conversations with some participants have also pointed out that condoms are of one size only and not accompanied by packet of lubricants. This can be a reason for reduced condom use and the scarce availability of lubricant is well documented in NAP2009 as well. Additionally conversations have pointed out that although condoms are available in many places (street vendors, pharmacies, convenience stores) through social marketing, participants do not think to buy them ahead of a sexual encounter, when sometimes, they receive condom free from the MSM organization, however, they carry these condom with them and use till they are finished.

In marital status, 7.1% are currently or formally married and most are bisexual MSM. Marital status was strongly associated with condom use with sexual partner ($p = 0.019$) in bi-variate analysis and the respondents who never married were able to use more condoms for safe sex than the currently or formally married ones which is likely in the way of the study among 896 adult males in China; one third had ever been married, 71.9% was reported as high prevalence of inconsistent condom use among MSM. Those who did not use condoms with MSM partners were also more likely than others to not use condoms with their female sex partners [8]. They are the bridge of HIV infection to the general population and some MSM get infected HIV from bisexual. Occupation was associated with condom use ($p = 0.011$) in bi-variate analysis. Condom use was decreased in the other kinds of occupation (worker in the fashion sector and spirit medium) in compared to Jobless (dependent). This could be explained by the fact that the other kind of occupations are in the great majority of the feminine type (*Apwint*) of MSM. Being feminine they have a less power in the sexual relation and the

decision to use condom is left to their masculine sexual partner (*Apone*). The author could not find references in the literature about power roles among feminine and masculine MSM in Myanmar and qualitative research is needed in this area to clarify this research finding of less condom use in worker in the fashion sector and spirit medium.

Among three kinds of MSM in this study, most of MSM are “*Apwint*” (Feminine MSM) and least is “*Apone*” (Masculine MSM). The high percentage may not be the truth of Feminine MSM in Mandalay city. About 62% of “*Apwint*” is likely the result of my snow ball sampling technique which detect Feminine MSM easily and cannot detect other kinds because they are hidden due to cultural and social barrier. Other research methods used for difficult to reach population such as *venue based interviewing* or modification of snow ball technique such as *respondent driven interviewing* can detect difficult to reach proportions of MSM types such as bisexuals and masculine MSM [4]. Future research using these methods may give different and more reliable results on the proportion of the three MSM groups in Mandalay.

In bi-variate analysis, there was strongly and negatively association between alcohol drinking before sex with condom use with sexual partner and those who drank alcohol before sex were less likely to use condoms by 0.38 times. This result is almost similar to the study showing that habit of alcohol drinking was associated with condom use and the quantity of alcohol consumed was associated with reduced in condom use [9].

RECOMMENDATION

Make condom and lubricants more available through direct distribution within the MSM organizations in Mandalay. MSM organizations should involve *Apwint* (Feminine MSM) in their work more extensively. *Apwint* are the best channel to convey information and distribute condom among *Apone* (Masculine MSM) and *Tha Nge* (Bisexual MSM) for because these two kinds of MSM are hidden among MSM society in Mandalay and can easily be reached by *Apwint* only. Investigate the reasons for non condom use among MSM by using qualitative research and specific questions in questionnaire based quantitative research. It is necessary to update published information about the reasons for no condom use because these reasons keep change over time.

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