Vulnerability of Female Partners of men who have sex with men

Background

Men on the "down-low" have gained considerable attention from both mainstream media and public health officials over the past few years. According to a study in 2002, the leading cause of HIV infection for both black men and women was sex with a man. The available data suggest that the behaviors associated with being on the down-low are not specificto black men, where the phenomenon was primarily observed, and men of other races and ethnicities also engage in homosexual sex and do not disclose their homosexual behavior to female partners. As a result, heterosexual transmission of HIV is a growing problem for women, but many women do not know how their partners acquired HIV. The current risk classification hierarchies in most countries rely on self-reported risk behaviors at the time of HIV testing but the validity of these self-reported risk behaviors are not assessed. Several investigators have raised the possibility that men who have sex with men and women (MSM/W) may serve as a "bridge" for infection between these groups. Despite these concerns, the behavior and characteristics of HIV- infected MSM/W has received relatively little attention.

The down low phenomenon is fast catching up in east and Nepal is no different. The increasing numbers of MSM are emerging as an major driver of epidemic in Nepal. Although, not much is known about the existence, number, the extent of their sexual behaviors and its impact on the STI/HIV epidemic in the country, the limited literature shows that number of accessible MSM in the country is increasing. In the conservative society of Nepal, where enormous stigma is attached to sex and sexuality, the homosexuality attracts harsher and even violent societal resistance and familial unacceptance. Literature shows that although almost all MSM tend to indulge in multiple male partners and active anal sex, due to the stigma attached to being an MSM, this population keeps their identity concealed and in order to do so they adopt a dual life leading to bisexuality. Bisexuality enables these men to lead a duel life of secrecy, without the knowledge of their female partner and many times their family. These men live a life of straight men who have sex with men or "down-low".

The MSM population accounts for a large proportion of HIV cases worldwide. The existence of males having sex with males (MSM) in Nepal, their number, the extent of their sexual behaviors and its impact on the STI/HIV epidemic in the country is not known adequately (FHI, IBBS report, 2005). According to the Blue Diamond Society, an NGO working with MSM in Nepal, the number of accessible MSM in the country is increasing and they report considerable high-risk behavior. The percentage of urban adult males who are MSM in Nepal is conservatively assumed to be between 1-3%. In recent years, MSM in Nepal is emerging as a group at risk of HIV and other STIs.

MSM experience un/protected sex with male sexual partner/s and also with female intimate as well as commercial heterosexual partner/s resulting in multiplicity of risks. Under these circumstances this group acts as a potential bridge transmitting the infection to their female partners including wives and girl friends.

Overlapping of homosexual and heterosexual intercourse and sexual risk behaviors among MSM translates into a spectrum of STI/HIV vulnerabilities for both their and their male partner's health as well as for the female

heterosexual partners. These multiple sexual risks engender variety of repercussions on the well being of both the genders. Yet, all the targeted interventions and prevention programs principally focus on cutting male-to-male HIV transmission and risk reduction in homosexual sex disregarding the risk that women partner of theses MSM face due to heterosexual intercourses. Under this backdrop it becomes essential to better understand the role that men who have sex with men and women play in the spread of HIV among high risk group including MSM as well commercial female partners and also in general population intimate female partners including wives and girlfriends in Nepal and also this whole gamete of multiplicity that forms a complex transmission and vulnerability web. This paper attempts to map these overlapping sexual risks among MSM shaping women's vulnerability to STI/ HIV.

Methods and Materials

The data employed in this paper is primary data collected across different districts of Nepal. The data was collected through a behavioral survey conducted among selected MSM interviewed as a part of the mapping and size estimation of MARPs exercise carried out in Nepal adopting a comprehensive protocols developed after various rounds of national consultation. The findings of this paper are based on information collected from 2182 MSM selected following modified time-location cluster sampling as part of mapping and size estimation of MARPs across different districts of Nepal.

This study was conducted in a participatory manner by involving people from the MARP community to make the process more inclusive, empowering and enhance the quality of the data. Local and qualified community members from the MARPs were trained to function as field researchers. To enable maximum reach to the population, social mapping of key populations was done by adopting a "geographical approach" in which "population of target group", "risk activities" was defined clearly, and then locations where these activities take place were identified to capture hidden population. To get a comprehensive picture of vulnerabilities and also understand the core issues that are critical for these groups, data was collected at three stages, through primary key informants were those engaged directly in High Risk Activities (HRA), (e.g., FSWs, MSMs and IDUs); secondary key informants were those closely associated with primary informants (e.g., pimps); and tertiary key informants were those who know about MARPs and were usually involved with the secondary stakeholders, or working for (or against) the interests of the primary stakeholders (e.g., NGOs, INGo, GOs, police).

Results

To get insights into the homosexuality and heterosexuality behavior of MSM and how it is translating into bisexuality driven overlapping sexual risks influencing heterosexual women's vulnerability to STI/ HIV in Nepal the analysis is carried out in two stages. The section 1 of the analysis deals with sexual behavior in homosexual relations. Section 2 talks about the bisexuality of MSM and the risk taking behavior with heterosexual partners. Section three very briefly discusses the possible correlation in homo and heterosexual risky behavior. It aims to find out the possible pathways through which homosexual practices are shaping heterosexual practices.

I. Homosexuality, homosexual behavior and profiling of risky behavior

Results show that two fifths of MSMs are married and staying with spouse whereas almost half are unmarried and not living with any partner. Although this half reported not staying with any partner this does not qualify them to non bisexuality behavior. An analysis of initiation of homosexuality revel a comparatively early initiation with 16.7 being the mean age at first anal sex for this group. The mean duration of involvement in the anal sex is 10 years. This duration is less for those MSM who have more than 10 years of education and those who are un-married and are natives highlighting the fact that natives, probably due to check of family and kin in the vicinity, lack the opportunity to enter in the homosexual behavior and thus reinforcing the stigma and denial attached to the homosexuality. The mean number of commercial partners during last 6 months is 36.1 and it is higher for those who are more than 30 years of age, illiterate, currently married and living with spouse and migrants. It is important here to note that MSM cohabitating with female spouse show pronounced commercial multi partner behavior which will have serious bearings on the health of these heterosexual women. Similarly, the mean number of non-commercial partners is 26.5 per MSM in the last 6 months. The mean number of non-commercial partners is high for those who belong to age below 20 years, highlighting the fact that the partner exchange rate among this population is high. Number of non-commercial partners is also high for those who are married but not living with their spouse and living with other sexual partners or staying alone. The coital frequency among this population was assessed by gathering information about the number of intercourses with a one week recall period and results how that over one third of MSM reported to have coitus 3 to 5 times a week.

Condom use behavior of this group was assessed with all types of partners including commercial as well as non-commercial mates. Interestingly, it was found to be higher with commercial partner as compared to non-commercial partner. Almost nine out of ten MSM reported to use condom with commercial partner as compared to 80 percent of those who use with non-commercial partner. Condom use seems to be lowest among those MSM who are currently married but living alone. Condom nonuse among non-commercial partner sex is high among MSM who are illiterate and are married but not living with any sexual partner. Similarly, lubricant use is also high with commercial partner (83%) as compared to non-commercial partners (76%). MSM who are currently married but not staying with any sexual partner is showing the least performance in terms of lubricant use with both types of partners. The pronounced risky behavior and risk taking among those men who are married and living alone needs further exploration. The emotional or psychological factors that may be operating for this groups need to be identified and addressed through counseling.

II. Bisexuality among MSM and profiling of risky behavior in heterosexual sex

Nearly three forth MSMs reported to have had sex with women ever. The proportion of MSM who reported to ever had sex with women is higher among MSM aged 30 or above, illiterate, not married and not living with any sexual partner, migrants, those who reported to have coital frequency of 10 or more encounters with commercial and non-commercial partner in last 30 days. Higher number of education years are significantly affecting the relationship with women as those who have more than 10 years of education are 0.3 times ($p<0.01$) less likely to have relationship with women. Interestingly, those who have 10 or more sexual encounters with commercial partners in the last 30 days are 5.2 times more likely to have had sex with women. Living arrangement is also playing significant role in determining the relationship with women as those MSM who are currently married but staying

alone, not married and living with sexual partner and unmarried and not living with any partner are 4.3 ($p<0.05$), 53.9 ($p<0.01$) and 57.6 ($p<0.01$) times more likely to have sex with female. The mean number of female partners was 16.27 per MSM. The mean number of partners seems to be higher for MSM age more than 30, illiterate, MSM who are currently married but either staying alone or with other sexual partner, those who have 1 to 2 times sexual intercourse with commercial partner in last one week and 10 or more times with non-commercial partners. The finding from above section reinforces the fact that bisexuality in this group is pronounced. Not only bisexuality, the multi partner behavior is also marked and the mean number of female partner is very high. These female partners can be both intimate partners or the commercial partners or the mix of both. In any case, the chances of transmission of virus to low risk female population cannot be overlooked. Also, the fact that men having higher no. of MSM non-commercial intercourse in last week exhibiting higher no. of female partners can be an issue requiring immediate attention of interventionists.

III. Bisexuality driven overlapping sexual risks influencing heterosexual women's vulnerability to STI/ HIV

An attempt to achieve the third objective a bivariate analysis of condom use with commercial and non-commercial partner was done against condom use with female partners. Condom use with commercial partner in last sex shows a peculiar relationship with condom use with female partner. Two fifths of MSM who reported to use condom with commercial partner reported not to use condom with female partner. Also a large proportion of MSM reported to not use condom with any type of partner. Interestingly, among those who reported not to use condom with commercial partner, one third reported to use condom with female but two third did not use condom with any partner.

The bisexuality among MSM is pronounced as over one-third of MSM below age 20 reported to have sex with 4 or more female partners in the last 6 months, though the adjusted effects of education reveal a significant decline in overlapping sex. However, adjusted effect of intensified MSM activity, especially with commercial partner enhances the overlapping sex (OR=5.2, $p<0.01$). Interestingly, protected sex is very low (54%) with female partners in comparison to male partners. Over two-thirds of MSM who didn't use condom in their last sex with commercial or non-commercial partner reported to have their last sex with a female as unprotected, which may enhance the effect of overlapping sex on women's vulnerability.

Conclusions, Recommendation and Implications

Prevention campaigns aimed at MSM, regardless of their sexual identity, should assume that some of them will have sex with both men and women and should address preventing transmission to both their partners through culturally and linguistically appropriate approached. MSM TIs should also envisage beyond homosexuality and address heterosexual sex as threat clouding existing efforts to effectively prevent virus entering general population. Prevention efforts need to focus on female partners of MSM. It is imperative that prevention efforts for women include information about bisexuality, as they may not be fully aware of their risk of acquiring HIV. These efforts may require promoting more open discussion of sexuality and sexual orientation, which includes addressing homosexual and bisexual behavior. Prevention programs for women should also focus on negotiating for safer sex and emphasizing the importance of condom use.

More quantitative investigations comparing HIV risks among men who are exclusively heterosexual, homosexual or bisexually active should be undertaken. Additionally, future studies of HIV-positive must address

bisexual men's sexual risk behaviors as most of the existing studies fail to assess bisexually active men's HIV risk behavior altogether. The role of bisexually active men in HIV transmission is a more complex issue than depictions of men on the down-low as sexual predators and women as uninformed victims.

Limitations of the study

This study is cross-sectional and do not examine reported behavior over time. The study uses a wide window of time to define bisexual behavior which may have bearing on the extent of bisexuality and its contribution in epidemic.

Table: Sexual history and current profile of MSMs

Background Characteristics	Mean age at first anal sex	Mean duration of involvement in anal sex (in years)	Mean number of commercial partner during the last 6 months	Mean number of non commercial partner during the last 6 months
Age				
Below 20	15.3	3.2	23.6	18.8
20-29	16.9	7.7	34.6	28.4
30 and above	17.5	19.3	47.9	29.9
Education				
Illiterate	16.0	15.4	43.1	30.9
Up to 5 years	16.1	11.5	55.7	47.0
6 to 10 years	16.8	8.9	36.2	29.9
10 and above	17.2	6.9	23.1	13.8
Living arrangement				
Currently married, living with spouse	17.0	13.8	30.9	31.5
Currently married, living with other sexual partner	16.9	16.1	50.2	17.2
Currently married, not living with spouse or any other sexual partner	17.3	17.4	41.5	15.4
Not married, living with sexual partner	15.9	7.8	51.8	30.6
Not married, not living with sexual partner	16.4	6.1	37.6	22.9
Migration status				
Migrant	17.1	9.4	57.8	29.8
Non-migrant	16.5	10.2	24.0	25.0
Mean	**16.7**	**10.0**	**36.1**	**26.5**

Table: Percent distribution of MSM having sexual relationship with female by relational intensity with other partners and some selected background characteristics

Sexual overlaps	**Ever had sex with a female**		**Mean number of female sexual partners**	**Ever had sex with a female**
	Yes	**No**		**Exp(B)**
Age				
Below 20	56.8	43.2	9.72	
20-29	72.5	27.5	5.64	1.0
30 and above	86.2	13.8	11.85	1.2
Education				
Illiterate	76.0	24.0	16.81	
Up to 5 years	73.3	26.7	10.96	1.0
6 to 10 years	73.1	26.9	6.1	0.7
10 and above	69.9	30.1	4.15	0.3***
Living arrangement				
Currently married, living with spouse	97.8	2.2	7.05	
Currently married, living with other sexual partner	91.8	8.2	23.58	0.6

Currently married, not living with spouse or any other sexual partner	88.1	11.9	21.98	4.3**
Not married, living with sexual partner	47.2	52.8	2.16	53.9***
Not married, not living with sexual partner	51.2	48.8	8.98	57.6***
Migration status				
Migrant	66.6	33.4	9.03	
Non-migrant	75.5	24.5	8.38	1.0
Intensity of relation with commercial partner in term of coital frequency in a week				
1-2 times	82.1	17.9	11.65	
3-9 times	81.4	18.6	8.73	1.1
10 or more times	53.4	46.6	8.04	5.2***
Intensity of relation with non-commercial partner in term of coital frequency in a week				
1-2 times	74.3	25.7	7.57	
3-9 times	76.5	23.5	4.93	0.8
10 or more times	58.4	41.6	16.27	1.5
Total	**72.0**	**28.0**	**16.27**	

*Note: ** 5% and *** 1%*

Table: Condom use behavior among MSM with different partner types

Condom use		**Condom use in last sex with female partner**		**Consistent Condom use with female partner**				
		Yes	No	All of the time	Most of the time	Some of the time	Rarely	Never
Condom use in last sex with Commercial partner	Yes	56.6	43.4	54.3	25.4	15.4	3.9	1.0
	No	32.8	67.2	35.0	25.0	27.5	12.5	0.0
Condom use in last sex with Non-commercial partner	Yes	61.9	38.1	61.3	21.0	14.7	2.4	0.5
	No	30.0	70.0	42.2	24.1	21.7	10.8	1.2