

Association between individual factors and HIV and AIDS

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Abstract

Introduction: Individual personality affects the cultural of society and it also affects the risk behavior of HIV and AIDS. Level of knowledge and sexual practices of individual determine the risk of HIV transmission. HIV and AIDS is one of the most dreaded diseases of century. The epidemic is unique in its devastating impact on the social, economic and demographic underpinnings of development. This study investigated the roles of individual factors increasing the risk of HIV and AIDS in the context of Nepal.

Methods: Study was non-experimental cross sectional. 404 respondents were randomly selected from the long route transport workers, brick factory workers, garment factory workers and health workers. The study was conducted from Oct 2012 to Mar 2013 (6 months) in Kathmandu valley.

Results: 94.1% respondents found aware about that unsafe sex is the means of HIV transmission. But still occupation-wise, 63.4% of Health workers wanted HIV status to remain secret as compared with only 17.8% transport workers remained it secret. Highly educated persons felt feeling of stigma being HIV positive. 11.6% respondents reported that they had sexual relationship with non-regular sex partners. Among them 37.5% had not used condom during the sexual intercourse with non-regular sex partners.

Conclusions: Safer sex practices is low than level of knowledge. Negligence behavior found high. Pre-marital sex is increasing among the youth. Most of the educated persons didn't want to disclose the HIV status because of the fear of stigma and discrimination of society.

Keywords: Factors, Individual, and HIV and AIDS

Introduction

In the context of HIV and AIDS, vulnerability is influenced by the interaction of a range of factors including (i) personal factors; (ii) factors pertaining to the quality and coverage of services and programs and (iii) societal factors. Personal factors includes sexual history, availability of knowledge and skills required to protect oneself and others and, in relation to care and social support, knowledge about treatment and social support programs as well as skills to access and take advantage of them.

The first case of AIDS was reported in Nepal in a foreign visitor in 1988. Since then prevalence has climbed steadily. The HIV epidemic in Nepal has evolved from a “**low prevalence**” to a “**concentrated epidemic**”. Nepal is categorized as a “Concentrated” epidemic country with some of the sub population groups likes: IDUs, MSM and FSWs and their clients, Labour migrants and house wives⁵. HIV and AIDS has become a prominent problem in the tiny South Asian country of Nepal. Experts have stated that the number of AIDS cases has increased fifteen-fold over a three-year period (1990-93)¹.

This study focused on how individual factors in general has facilitated the spread of HIV, with specific reference to the knowledge of HIV transmission, use of condom, extra marital sex, negligence, and use of alcohol which may, in turn, lead to the further spread of HIV.

Methods

The study was based on descriptive cross sectional design. The study was carried out in Kathmandu Valley from Oct 2012 to Mar 2013 among the 404 respondents. This research was approved from the Research Degree Committee (RDC) of Dr. K. N. Modi University, India and ethical approval (**Reg. No. 11/013**) was taken from the Nepal Health Research Council NHRC. Reproductive age group (15-49 ages) was selected for study. Sample size was calculated by using the following sampling formula:

(Where, $z = 1.96$ (95% confidence level), $p = .5\%$ and $e = 0.05\%$)

$$n_0 = \frac{Z^2 pq}{e^2}$$

Simple random sampling technique was used to select the respondents. Primary data was collected by using the questionnaires. Statistical analysis of data was completed through SPSS. Crosstab and chi-square test was done to find out the association of variables.

Results

The individual factors were tested to identify the association with increasing the risk of HIV and AIDS. The findings of study are tabulated and analyzed as below:

Among the total (n=404) respondents in the survey by sex, 29.46 percent were females and rests were males. As per ethnicity 53.2% of respondents were Janjati followed by 30.44% Chhetri and Brahmin, 11.38% Dalit and 5% others were participated in research study. 229 respondents were married and 175 were unmarried.

I. Knowledge about the different way of HIV transmission:

Table 1. Knowledge on way of HIV transmission

Response		Occupation of respondents				
		Health workers	Garment Factory workers	Transport workers	Brick factory workers	Total
unsafe sexual contact	% within total respondents	25.8%	21.8%	26.1%	26.3%	100%
	No. within Occupation of respondents	98	83	99	100	380
Sharing foods	% within total respondents	50.0%	25.0%	25.0%	0%	100%
	No. within Occupation of respondents	2	1	1	0	4
sharing of needles	% within total respondents	35.0%	14.8%	27.3%	23.0%	100%
	No. within Occupation of respondents	64	27	50	42	183
others	% within total respondents	100.0%	0%	0%	0%	100%
	No. within Occupation of respondents	4	0	0	0	4

Sources: Field survey, 2013

Regarding the different way of HIV transmission, 94.1% of the respondents mentioned that unsafe sex is the means of transmission. Similarly, 45.3% of the respondents mentioned that sharing of the needles, 1.0% of the respondents mentioned that sharing of foods and 1.0% mentioned that sharing of blood component and sharing of bleed.

25.8%, 21.8%, 26.1% and 26.3% respectively Health workers, garment factory workers, transport workers and brick factory workers mentioned that HIV transmitted by unsafe sex. Similarly, 35.0% health workers, 14.8% garment factory workers, 27.3% transport workers and 23% brick factory workers mentioned that sharing of needles. 2 health workers followed by 1 garment factory workers and 1 transport workers mentioned that HIV can transmit by sharing of food. 4 health workers mentioned that HIV can transmit by sharing of blood related components and sharing of bleed.

II. Secrecy about the HIV and AIDS and educational status of respondents

Table 2. secrecy of HIV infection

Response		Educational status of respondents						Total
		Illiterate	Literate	Primary	Lower Secondary	Secondary	Higher Secondary	
Secrecy of HIV status	Yes	7	12	31	40	22	57	169
	No	6	18	63	40	29	50	206
	Don't Know	6	2	9	6	2	4	29
Total		19	32	103	86	53	111	404

Sources: Field survey, 2013

51% respondents wanted to disclose the HIV status followed by 42.8% wanted it to remain secret. 63.4% of Health workers wanted HIV status to remain secret as compared with only 17.8% transport workers remained it secret.

Education wise, 111 respondents who had higher secondary education and above reported that they wanted to keep the HIV status secret followed by 103 primary level educations, 86 lower secondary level and 53 secondary level, whereas only 19 illiterate respondents reported that they didn't want to remain it secret.

There was significant association ($p=.000$) between the secrecy of HIV and AIDS and educational status of respondents.

III. Experience of sexual intercourse

Table 3. experience of sexual intercourse

Marital status of respondents			Occupation of respondents				Total
			Health workers	Garment Factory workers	Transport workers	Brick factory workers	
Unmarried	experience	Yes	12	7	17	14	50
	of sexual	No	25	40	24	20	109
	intercourse	No Response	8	1	1	2	12
Total			45	48	42	36	171

Sources: Field survey, 2013

69.5% respondents reported that they had sexual experience; among them, 29.2% ($n = 171$) unmarried respondents had sexual experience. 27.2% shared that they had no sexual experiences followed by 3.3% respondents didn't want to share their sexual experiences. Occupation wise, pre-marital sex was found comparatively high among the transport workers followed by brick factory workers, health workers and garment factory workers. There was significant association ($p = .002$) between unmarried respondents and sexual practices.

IV. Sexual relation with non-regular sex partners in last 6 months

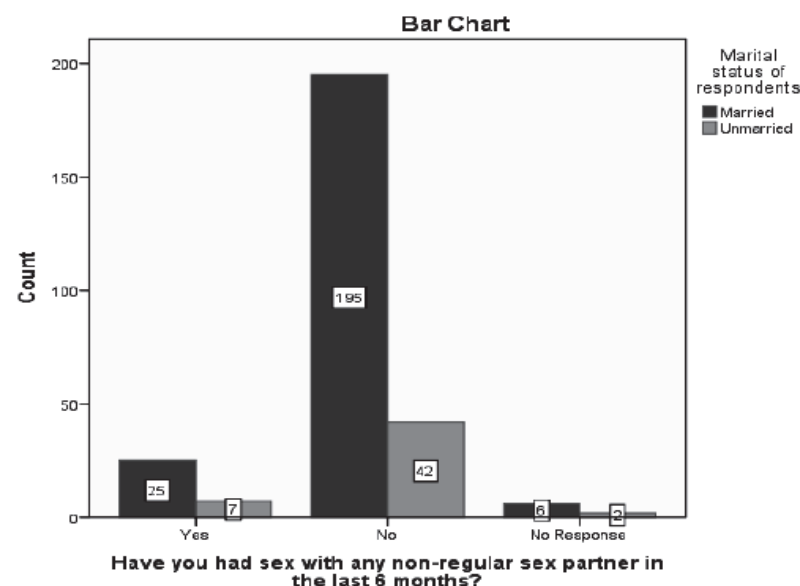


Figure 1: sexual relation with non-regular sex partners

From the above data, it is found that in total, 11.6% respondents reported that they had sexual relationship with non-regular sex partners. On the basis of marital status, 11.1% married and 13.7% unmarried respondents had reported that they had sexual relation with non-regular sex partners. There is significant association ($p = .006$) between married respondents and sexual relation with non-regular sex partners. But there is no significant association ($p = .469$) between unmarried respondents and sexual relation with non-regular sex partners

V. Use of condom with non-regular sex partners

Table 4. Use of condom with non-regular sex partners

Responses		Occupation of respondents			
		Health workers	Garment Factory workers	Transport workers	Brick factory workers
Yes	Count	4	3	4	5
	% within the total respondents	25.0%	18.8%	25.0%	31.2%
	% within Occupation of respondents	80.0%	27.3%	36.4%	100.0%
No	Count	1	5	6	0
	% within the total respondents	8.3%	41.7%	50.0%	0.0%
	% within Occupation of respondents	20.0%	45.5%	54.5%	0.0%
Don't Know	Count	0	3	1	0
	% within the total respondents	0.0%	75.0%	25.0%	0.0%
	% within Occupation of respondents	0.0%	27.3%	9.1%	0.0%
Total	Count	5	11	11	5
	% within the total respondents	15.6%	34.4%	34.4%	15.6%
	% within Occupation of respondents	100.0%	100.0%	100.0%	100.0%

Sources: Field survey, 2013

Among the total respondents who reported that they had sex with non-regular sex partners since last 6 months prior to this study shows that 37.5% had not used condom during the sexual intercourse with non-regular sex partners.

VI. Association between Negligence and the risk of HIV and AIDS

Table 5. Negligence and risk of HIV and AIDS

Responses		Occupation of respondents				Total
		Health workers	Garment Factory workers	Transport workers	Brick factory workers	
Strongly Agree	% within the total respondents	21.6%	24.8%	25.4%	28.2%	100.0%
	% within Occupation of respondents	74.3%	85.1%	87.1%	97.0%	85.9%
Agree	% within the total respondents	58.3%	19.4%	19.4%	2.8%	100.0%
	% within Occupation of respondents	20.8%	6.9%	6.9%	1.0%	8.9%
Neutral	% within the total respondents	27.8%	38.9%	27.8%	5.6%	100.0%
	% within Occupation of respondents	5.0%	6.9%	5.0%	1.0%	4.5%
Disagree	% within the total respondents	0%	50.0%	0%	50.0%	100.0%
	% within Occupation of respondents	0%	1.0%	0%	1.0%	.5%
Strongly Disagree	% within the total respondents	0%	0%	100.0%	0%	100.0%
	% within Occupation of respondents	0%	0%	1.0%	0%	.2%
Total	% within the total respondents	25.0%	25.0%	25.0%	25.0%	100.0%
	% within Occupation of respondents	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: Field survey, 2013

85.9% respondents reported that they were 'strongly agree' regarding the association between the negligence and risk of HIV and AIDS followed by 8.9% respondents reported 'agree'. In total more than 94% respondents mentioned that negligence of people is one major factor associated with increasing the risk of HIV and AIDS in Nepalese context.

There was association ($p=.000$; $df = 12$) found between negligence as an associated factors with increasing the risk of HIV and AIDS and occupation of respondents.

VII. Lack of awareness is associated with risk of HIV transmission

Table 6. Lack of awareness and risk of HIV and AIDS

Responses		Occupation of respondents				Total
		Health workers	Garment Factory workers	Transport workers	Brick factory workers	
Strongly Agree	% within the total respondents	27.3%	22.1%	22.4%	28.2%	100.0%
	% within Occupation of respondents	83.2%	67.3%	68.3%	86.1%	76.2%
Agree	% within the total respondents	21.8%	26.9%	34.6%	16.7%	100.0%
	% within Occupation of respondents	16.8%	20.8%	26.7%	12.9%	19.3%
Neutral	% within the total respondents	0%	75.0%	25.0%	0%	100.0%
	% within Occupation of respondents	0%	8.9%	3.0%	0%	3.0%
Disagree	% within the total respondents	0%	50.0%	50.0%	0%	100.0%
	% within Occupation of respondents	0%	2.0%	2.0%	0%	1.0%
Strongly Disagree	% within the total respondents	0%	50.0%	0%	50.0%	100.0%
	% within Occupation of respondents	0%	1.0%	0%	1.0%	.5%
Total	% within the total respondents	25.0%	25.0%	25.0%	25.0%	100.0%
	% within Occupation of respondents	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: Field survey, 2013

In total, 95.5% respondents (76.2% reported 'strongly agree' and 19.3% reported 'agree') reported that there is association between the lack of awareness and risk of HIV and AIDS. Out of rest 3.0% reported that they were neither agrees nor disagrees.

There was association ($p=.001$; $df = 12$) found between lack of awareness as an associated factors with increasing the risk of HIV and AIDS and occupation of respondents.

VIII. Association between Alcoholic nature and the risk of HIV and AIDS

Table 7. (Alcoholic nature and risk of HIV and AIDS)

Responses		Occupation of respondents				Total
		Health workers	Garment Factory workers	Transport workers	Brick factory workers	
Strongly Agree	% within the total respondents	25.0%	14.1%	7.8%	53.1%	100.0%
	% within Occupation of respondents	15.8%	8.9%	5.0%	33.7%	15.8%
Agree	% within the total respondents	28.6%	22.2%	20.6%	28.6%	100.0%
	% within Occupation of respondents	17.8%	13.9%	12.9%	17.8%	15.6%
Neutral	% within the total respondents	10.6%	42.4%	32.9%	14.1%	100.0%
	% within Occupation of respondents	8.9%	35.6%	27.7%	11.9%	21.0%
Disagree	% within the total respondents	34.3%	23.9%	25.4%	16.4%	100.0%
	% within Occupation of respondents	22.8%	15.8%	16.8%	10.9%	16.6%
Strongly Disagree	% within the total respondents	28.0%	20.8%	30.4%	20.8%	100.0%
	% within Occupation of respondents	34.7%	25.7%	37.6%	25.7%	30.9%
Total	% within the total respondents	25.0%	25.0%	25.0%	25.0%	100.0%
	% within Occupation of respondents	100.0%	100.0%	100.0%	100.0%	100.0%

Sources: Field survey, 2013

Regarding the association between alcoholically nature and risk of HIV transmission, 30.9% reported 'strongly disagree' followed by 16.6% reported 'disagree'. 21% respondents reported 'neither agree nor disagree'. Only 15.8% and 15.6% reported 'strongly agree' and 'agree' respectively.

Though there was association ($p=.000$, $df = 12$) found between alcohol consumption during the sexual intercourse and occupation of respondents.

Discussion

In our studies regarding the different way of HIV transmission, 94.1% (n=404/380) of the respondents mentioned that unsafe sex is the means of transmission. IBBS-2010 result shows that 82.3% respondents heard about HIV. About 26 percentages of the respondents know that HIV and AIDS are transmitted through unsafe sex¹⁰.

A survey conducted by UNAIDS and NCASC among the 1400 young people in seven districts of Nepal showed that almost 20% of teenagers considered premarital sex as 'proper'. Unprotected sex led to a 22% STD infection rate in boys and 13% in girls and caused pregnancy in 14% of the cases¹². In my study 29.2% unmarried respondents had sexual experience. This data shows the increasing trend of pre-marital sex.

In this study, 11.6% respondents reported that they had sexual relationship with non-regular sex partners. Previous study shows that visiting brothels, pre- or extramarital sex, and sex with multiple partners, including sex workers was very common among Nepali migrants⁶⁻⁷. IBBS reported that 18.1% respondents from the Western region in 2006 and 11.1% in 2008 and from mid to Far Western 30.5% in 2006 and 23.3% in 2008 reported ever is having had sex with a female sex worker⁸.

One previous study reported that almost 60 percent of FSWs' clients do not use condoms⁹. But, Gurubacharya reported that 75% of migrants within Nepal used condom while visiting female sex workers in comparison to only 10% of migrants to India⁴. In my study 37.5% had not used condom during the sexual intercourse with non-regular sex partners since last 6 months prior to this study.

In the study, only 31.4% were found agree on association between use of alcohol during sexual activity and risk of HIV transmission. But, various previous literatures identified 'there is a scientific basis for the belief that alcohol consumption might increase the likelihood of participating in a risky sexual encounter'³. Similarly, one study of Uganda reported that when people get drunk, their judgment gets impaired and are likely to engage in unintended and unprotected sex and sometimes rape other peoples' wives or bar maids' also².

Conclusion

In this study, the individual factors are found strongly associated with the risk of HIV transmission. Safer sex practices found low than the level of knowledge. Higher number of educated person didn't want to disclose the HIV status. Ex-marital sex is found in increasing trend and still 37.5% were found not using condom during the sexual

intercourse with non-regular sex partners. Negligence behavior played the vital role to increase the vulnerability of HIV infection.

Acknowledgement

I express my gratitude to respondents and supervisor Prof. Dr. Ritu Prasad Gartoulla for his close guidance. Besides that I thank to the Dr. K. N. Modi University, India for providing this opportunity to conduct the research work and Nepal Health Research Council for ethical approval.

Conflict of interest: The authors declare that they have no conflict of Interest

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