

# Correlation between Knowledge, Attitude and Practices on HIV and AIDS: Cases from the Kathmandu Valley

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## ABSTRACT

**Background:** This study investigated the correlation between knowledge, attitude and practices on HIV and AIDS in the context of Nepal. The study was conducted among the 404 respondents; selected from the transport workers, garment factory workers, brick factory workers and health workers.

**Methods:** It was non-experimental cross sectional study based on descriptive as well as correlational research design. Simple random technique was used to select the respondents. Survey was conducted to collect the primary data and r value was used to analyze the correlation between variables.

**Results:** Finding shows that 391 (96.8%) respondents have heard about HIV and AIDS; among them 388 (95.8%) respondents were mentioned that they had knowledge of way of HIV transmission also. Total 50 out of 171 unmarried (29.2%) respondents had pre-marital sexual experience. It was found that only 71 (25.6%) respondents had used the condom during their first time sexual intercourse. There was significant association ( $p = .000$ ) found between the knowledge on way of HIV transmission and occupation of respondents, similarly relationship found ( $r = .815$ ,  $p = .000$  (2-tailed) between marriage age and age of first time sexual intercourse of respondents. But there was no relationship ( $r = .097$  and  $p = .106$  (2-tailed) found between Knowledge on way of HIV transmission and sex with non-regular sex partners.

**Conclusions:** Data showed that safer sex practices was low than the level of knowledge. The educational status of respondents shows the positive association with attitude towards the necessary to have knowledge of HIV and AIDS.

**Keywords:** Attitude; HIV and AIDS; Knowledge; Practices.

## INTRODUCTION

The HIV and AIDS epidemic started in the mid-80s with a few reported cases across the world.<sup>1</sup> Globally; 34.0 million people were living with HIV at the end of 2011. An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV.<sup>2</sup>

in SAARC Region Adult HIV Prevalence Rates is found <0.1% in Afghanistan, Bangladesh, Bhutan, Maldives and Sri-Lanka and 0.1% in Pakistan, 0.31% in India and 0.33% in Nepal.<sup>3</sup> First case of AIDS was reported in Nepal in a foreign visitor in 1988. The HIV epidemic in Nepal has evolved from a "low prevalence" to "concentrated

epidemic".<sup>4</sup> It became a prominent problem in Nepal.<sup>5</sup> It is the life-threatening that attack the human body.<sup>6</sup> Nepal launched first National AIDS Prevention and Control Program in 1988.<sup>7</sup> The Government of Nepal has identified HIV and AIDS as a "priority 1" program under the National Plan.<sup>8</sup>

## METHODS

The study was based on descriptive as well as correlational cross sectional design. The study was carried out in Kathmandu Valley from Mar - May, 2013

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among the 404 respondents. Respondents were selected from the transport workers, garment factory workers, brick factory workers and health workers working in the Kathmandu valley. The country was divided into four epidemic zones in 2003: among them Kathmandu Valley was divided as first epidemic zones.<sup>9</sup> Ethical approval (Reg. No. 11/013) was taken from the Nepal Health Research Council for data collection and written consent was taken from the each respondent. Simple random sampling was done to select the respondents. Only reproductive age group (15-49 ages) was selected for study. Sample size was calculated by using the following sampling formula:

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

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

Primary data was collected by using the structured questionnaires. The data, after collection, had processed and analyzed in accordance with the purpose of study. Processing of data implied editing, coding and tabulation of collected data so that the data became amenable to analysis. Frequency distribution, mean, median and correlation coefficient was done to interpret the data and find out the relation between the knowledge, attitude and practices of HIV and AIDS by using the SPSS.

## RESULTS

The data mentions that sex wise participation of male, caste wise: Janjati, age wise: 26-30 age and education wise majority of primary level respondents were participated in study (Table 1).

**Table 1. Demographic information of respondents.**

Sex of respondents	Health workers	Garment Factory workers	Transport workers	Brick factory workers	Total Numbers
	Numbers	Numbers	Numbers	Numbers	
Male	49	59	101	76	285
Female	52	42	0	25	119
Caste distribution of Respondents					
Brahamin/Chhetri	43	9	44	27	123
Janjati	45	68	47	55	215
Dalit	3	18	9	16	46
Others (Muslim & Yadav)	10	6	1	3	20
Age Distribution of respondents					
15-20 Age group	8	39	15	22	84
21-25 Age group	26	23	37	17	103
26 - 30 Age group	40	17	27	24	108
31- 35 Age group	8	14	14	17	53
36 - 40 Age group	7	4	4	12	27
41 - 45 Age group	8	1	3	9	21
46 - 49 Age group	4	3	1	0	8
Marital status of respondents					
Married	54	52	58	65	229
Unmarried	47	49	43	36	175
Educational Status of respondents					
Illiterate	0	17	2	0	19
Literate	0	16	3	13	32
Primary	0	32	33	38	103
Lower Secondary	0	28	34	24	86
Secondary	10	5	18	20	53
Higher Secondary and above	91	3	11	6	111

From the data, the mean value of knowledge is found less than attitude and practices in each group of respondents (Table 2).

**Table 2. Mean and median on the knowledge, attitude and practice among different type of population studied.**

Statistical test	Health workers		Garment factory workers		Transport workers		Brick factory workers	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Knowledge of HIV and AIDS	1.00	1.00	1.11	1.00	1.02	1.00	1.00	1.00
Attitude: secrecy of HIV status	5.17	1.00	14.91	2.00	8.48	2.00	8.48	2.00
Practices: Use of condom	9.25	2.00	5.08	2.00	5.49	2.00	5.49	2.00

Total 388 (95.8%) respondents had knowledge of way of HIV transmission. Similarly, data showed that 206 (51%) respondents wanted to disclose the HIV status followed by 173 (42.8%) wanted it to remain secret and 25 (7.2%) don't know what should be done. The finding shows that there was significant relationship ( $R = .155$  and  $p > .002$ , 2-tailed) between level of knowledge and secrecy status of HIV positive (Table 3).

**Table 3. Correlations between Knowledge on way of HIV transmission and secrecy of HIV status.**

Correlations		Knowledge on way of HIV transmission	Secrecy of HIV status
Spearman's rho	Knowledge on way of HIV transmission	Correlation Coefficient 1.000	.155*
		Sig. (2-tailed)	.002
		n	404
	Secrecy of HIV status	Correlation Coefficient .155*	1.000
	Sig. (2-tailed)	.002	.
	n	404	404

\*Correlation is significant at the 0.01 level (2-tailed).

Total 366 (90.6%) respondents reported that PLHIV can do the job because it is their human right. Data shows that there was significant relationship ( $r = .360$ ,  $p = .000$  (2-tailed) between knowledge on way of HIV transmission and attitude towards the right of PLHIV (Table 4).

Total 32 (11.6%) respondents reported that they had sexual relationship with non-regular sex partners. On the basis of marital status, 25 (11.1%) married and 7 (13.7%) unmarried respondents had reported that they had sexual relation with non-regular sex partners. There was no relationship ( $r = .097$  and  $p = .106$  (2-tailed) found between Knowledge on way of HIV transmission and sex with any non-regular sex partner (Table 5).

**Table 4. Correlation between Knowledge on way of HIV transmission and attitude towards the job rights of PLHIV.**

Correlations		Knowledge on way of HIV transmission	Attitude towards the job right of PLHIV
Spearman's rho	Knowledge on way of HIV transmission	Correlation Coefficient 1.000	.360*
		Sig. (2-tailed)	.000
		n	404
	Attitude towards the job right of PLHIV	Correlation Coefficient .360*	1.000
	Sig. (2-tailed)	.000	.
	n	404	404

\*. Correlation is significant at the 0.01 level (2-tailed).

**Table 5. Correlation between knowledge on way of HIV transmission and practices of sex with non-regular sex partners in last 6 months preceding of survey.**

Correlations		Knowledge on way of HIV transmission	sex with non-regular sex partner
Spearman's rho	Knowledge on way of HIV transmission	Correlation Coefficient 1.000	.097
		Sig. (2-tailed)	.106
		n	277
	sex with non-regular sex partner	Correlation Coefficient .097	1.000
	Sig. (2-tailed)	.106	.
	n	277	277

Total 71 (25.6%) respondents had used the condom during the first time sexual intercourse. On the basis of

marital status; it is found that 17 (33.3%) unmarried and 179 (79.2%) married had not used condom. There was no significant relationship ( $r = .018$ ,  $p = .766$  (2-tailed)) and no significant association (Pearson Chi-Square,  $p = .289$ ,  $df = 2$ ) found between knowledge of way of HIV transmission and use of condom in first sexual intercourse (Table 6).

**Table 6. Correlation between Knowledge on way of HIV transmission and use of condom in first sexual intercourse.**

Correlations		Knowledge on way of HIV transmission	Use of condom in first sexual intercourse
Spearman's rho	Knowledge on way of HIV transmission	Correlation Coefficient	1.000
		Sig. (2-tailed)	.018
		n	404
	Use of condom in first sexual intercourse	Correlation Coefficient	.018
		Sig. (2-tailed)	.766
		n	277

**Table 7. Correlation between knowledge on way of HIV transmission and practices of condom use with non-regular sex partners.**

Correlations		Knowledge on way of HIV transmission	Use of condom with non-regular sex partner
Spearman's rho	Knowledge on way of HIV transmission	Pearson Correlation	1
		Sig. (2-tailed)	.056
		n	404
	Use of condom with non-regular sex partner	Pearson Correlation	.056
		Sig. (2-tailed)	.354
		n	276

Data shows that 32 (11.6%) respondents reported that they had sexual relationship with non-regular sex partners; among them 12 (37.5%) had not used condom during the sexual intercourse. There was no relation ( $r = .056$ ,  $p = .354$ ) found between knowledge on way of HIV transmission and use of condom with non-regular sex partners during their sexual intercourse (Table 7).

Fifty seven respondents were married at the age between 18 - 20 ages, 52 between 21-22, 52 were 23-25 age and 43 were more than 25 age, 14 were 15-17 and 11 were under 15 years. Total 11% respondents were married under the age of 18. So, it reflects the status of child married. Mean age of marriage was 22.07 years and 278 (69.5%) respondents responded that they had sexual experience; out of them only 274 (67.8%) shared their first sexual experience. 16 (5.8%) had sexual experience in less than 15 years. Gradually, 29 (10.6%) had sex experience in between 15-17 years, 85 (31%) had 18-20 years, 60 (21.9%) had 21-22 years, 48 (17.5%) had 23-25 years and 36 (13.1%) had after 25 years. There is significant relationship found ( $r = .815$ ,  $p = .000$  (2-tailed)) between marriage age of respondents and age of first time sexual intercourse (Table 8).

**Table 8. Correlation between Marriage age of respondents and Age of First time sexual intercourse.**

Correlations		Marriage age of respondents	Age of First time sexual intercourse
Spearman's rho	Marriage age of respondents	Correlation Coefficient	1.000
		Sig. (2-tailed)	.815
		n	229
	Age of First time sexual intercourse	Correlation Coefficient	.815
		Sig. (2-tailed)	.000
		n	225

\*Correlation is significant at the 0.01 level (2-tailed).

There is significant relationship ( $r = -.134$ ,  $p = .007$  (2-tailed)) found between Educational status of respondents and Attitude towards the necessary to have knowledge of HIV and AIDS (Table 9).

**Table 9. Correlation between Educational status of respondents and attitude towards the necessity to have knowledge of HIV and AIDS.**

Correlations		Educational status of respondents	Necessary to have knowledge of HIV and AIDS
Spearman's rho	Educational status of respondents	Correlation Coefficient	1.000
		Sig. (2-tailed)	.007
		n	404
	Necessary to have knowledge of HIV and AIDS	Correlation Coefficient	-.134
		Sig. (2-tailed)	.007
		n	404

\*Correlation is significant at the 0.01 level (2-tailed).

## DISCUSSION

WHO had identified 'poverty, migration, conflict, trafficking of illicit drugs and prostitution are the major contributory factors to Nepal's HIV/AIDS vulnerability.<sup>10</sup> There are also many widely held miss-beliefs and cultural practices that are contributing to the spread of HIV and AIDS in Nepal, such as having sex with 108 virgins will cure AIDS and STDs, cleaning the penis with urine, Detol soap, or Coke will cure AIDS and STDs, Nag puja (worshiping snake) will cure AIDS and STDs, anal sex will cause HIV, HIV is prevalent only in Bombay. A tika from Sai Baba placed on the penis will cure STDs and AIDS.<sup>11,12</sup>

Previous study reported that HIV prevalence among migrants within Nepal was 2.3% as compared to 8.5% among migrants to India. 60% of migrants within Nepal and 85% of migrants to India have visited female sex workers. Total 75% of migrants within Nepal used condom while visiting female sex workers in comparison to only 10% of migrants to India.<sup>13</sup>

It is found that the male migrant workers who heard about HIV are higher in percentages (82.3%), but consistency use of condom is found low in percentages (only 17.7%).<sup>14</sup> Regarding the consistent use of condoms with partners other than clients, husband and male friends had decreased significantly among the establishment based FSWs (59.7% i.e. 86/144 in 2006 and 38.1% i.e. 24/63 in 2008).<sup>15</sup>

As impact of prevention program initiated by government and other partner organizations, 73.3 percent of injective drug users,<sup>16</sup> 26.7% female sex workers,<sup>17</sup> 83.3% of MSM<sup>18</sup> in 2009 and about 26% migrant workers in 2010<sup>14</sup>

were found aware on HIV preventive measures. Similarly, consistent use of condom was increased among MSM with non-paying partners from 44% in 2004 to 71% in 2007.<sup>19</sup>

In comparison with the previous data, my study finding shows the similar result. Safer sex practices found low than the level of knowledge in different groups. There was no relation ( $r = .056$ ,  $P = 0.354$ ) found between knowledge on way of HIV transmission and use of condom with non-regular sex partners during their sexual intercourse.

The limitation of the study is that this research included Kathmandu valley only. This research only covers the demographic information of respondents and correlational analysis between knowledge, attitude and practices. Qualitative information is not included in this article.

## CONCLUSIONS

The study explored that individual negligence behavior is known as one major cause to increase the risk of HIV transmission in Nepal because unsafe sex practices is found high among the educated people also. Besides that belief system 'trust on sex partners' also found one risk factors of HIV transmission. Comparatively higher numbers of educated people want to keep the secrecy of HIV status because of the fear to loss their social prestige among the society. It was observed that many people were found more familiar with the word 'AIDS' than 'HIV'.

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