

HIV/AIDS and STI related knowledge, attitude and practice among high school students in Kathmandu valley

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Abstract

Objective: To assess the knowledge, attitude and practice of high school students regarding HIV/ AIDS and STI and to determine if a school education programme would bring about statistically significant positive change in the knowledge, attitude and practice regarding HIV/AIDS and STI. **Methods:** The study was conducted among 1012 students of various schools in Kathmandu Valley (Kathmandu, Bhaktapur and Lalitpur). The tool for assessment was confidentially administered closed questionnaire both before and after the education programme of 45 minutes single class, standardized education package. **Results:** Knowledge on some aspect of the disease was quite low in the study group. 45.8% had prior knowledge of HIV, 65.2% knew that HIV/AIDS could be transmitted by sharing same needle, 46.2% knew that vaccine is not yet available for HIV/AIDS. Knowledge about STI was also quite low, 41.5% knew that pus in the urine is a symptom of STI and 41.7% knew that STI is curable. 4.2% of the study group had previous sexual intercourse, 64.2% had sexual intercourse with friend and 35.17% had sexual intercourse with commercial sex workers. 1.8% would commit suicide if they contracted HIV/AIDS. According to sex wise distribution of the sample, female's knowledge about HIV was low 43.2% as compared to male 48%, male's knowledge about transmission of HIV/AIDS from pregnant mother to child was low; 89.7% as compared to female's knowledge 94.2%. Female's knowledge about commercial sex worker as high risk group was low (87.8%) as compared to male's knowledge 90.6%.

Key words: HIV, AIDS, STI, high school children.

HIV/AIDS has emerged as the single most formidable challenge to public health, human rights and development in the new millennium. UNAIDS estimates 38 million people across the world are living with HIV/AIDS and 61000 of these people are living in Nepal¹. In Kathmandu Valley, an estimate of HIV cases is about 8000 (6000-8000), the main groups being IV drug user (IDU) and client of female sex worker (FSWs)². Nepal's vulnerability to HIV/AIDS is fuelled by poverty, gender inequalities, low level of education and illiteracy, denial, stigma and discrimination. Nepal is fortunate in that it still has relatively few HIV/AIDS cases. However, there are already concentrated epidemics in the country. Immediate and vigorous action must be taken now to prevent further spread of HIV among groups at high risk and to stop the infection from taking a foothold in the larger population.

Numerous studies³⁻⁹ have been conducted around the world to assess the knowledge, attitude and practice of high school students regarding HIV/AIDS and to determine if school education programme will bring about positive changes. A similar study like ours has been conducted in Inaruwa, Sunsari, and Eastern Nepal¹⁰.

Material and Methods

A confidentially administered closed ended questionnaire was given to 1012 class 8 and 9 students of different schools in Kathmandu Valley (Kathmandu, Bhaktapur, and Lalitpur) to quantify their knowledge and attitude regarding HIV/AIDS and to determine their sexual practice. After the questionnaire was filled up, an educational programme of 45 minutes, single class, standardized education package regarding HIV/AIDS and STI was administered. A repeat questionnaire was administered to all 1012 students to determine if the education programme had any positive improvement in their knowledge and attitude regarding HIV/AIDS and STI.

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The data were analyzed through PHStat2 and SPSS 10.01 software. The interpretation was made using various charts, tables and Z test for the difference between the proportions in pre education and post education category. The 99% confidence intervals were also computed for each category.

Results

The age of class 8 and 9 students ranged from 13-20 years and 66% were between 15-16 years. 53.8% were male and 46.2% were female. 65%, 20.7%, 14.3% lived in Kathmandu, Lalitpur, and Bhaktapur respectively.

Post knowledge about mode of transmission by sex was as high as 99.2% (p <0.00001), 92.2% (p <0.00001) of them knew the causative agent, 98.5% (p <0.00001) knew that IV drug abuser are high risk

groups. 99% (p <0.00001) of the study group following education knew that HIV/AIDS can be prevented by safe sex (condom use). 55.7% (p <0.00001) had altered their attitude (pre education 29.2%) to allow a HIV positive patient inside their house.

According to sex wise distribution of the sample female’s knowledge about genital ulcer as symptom of STI was 92.3% as compared to 89.2% in male and female’s attitudes of allowing HIV positive patient inside their house was 59.6% as compared to 52.4% in male.

3.9% of the students consumed alcohol (beer), 2.1% smoked cigarette and 0.2% of the students used IV drugs. Of the IV drug abusers 50% used single syringe with friends and whilst 50% used different syringes.

Table 1. Educational Status of the parents

S. No	Educational background	Father	Mother
1.	Illiterate	4.9%	22.9%
2.	Just literate	32%	37.2%
3.	School graduate	30.5%	22.5%
4.	College and university	32.5%	14.4%

Table 2. Knowledge of HIV/AIDS and STI

S.No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	Knowledge of HIV	45.8%	91%	0.40-0.50	<0.00001
2.	Knowledge of AIDS	60.6%	94.4%	0.30-0.35	<0.00001
3.	Knowledge of STI	47.6%	92%	0.39-0.49	<0.00001
4.	HIV is NOT curable	77.3%	96.9%	0.17-0.21	<0.00001
5.	STI is curable	41.7%	87.2%	0.40-0.50	<0.00001

Bar Diagram 1. Sex wise distribution of knowledge of HIV/AIDS and STI

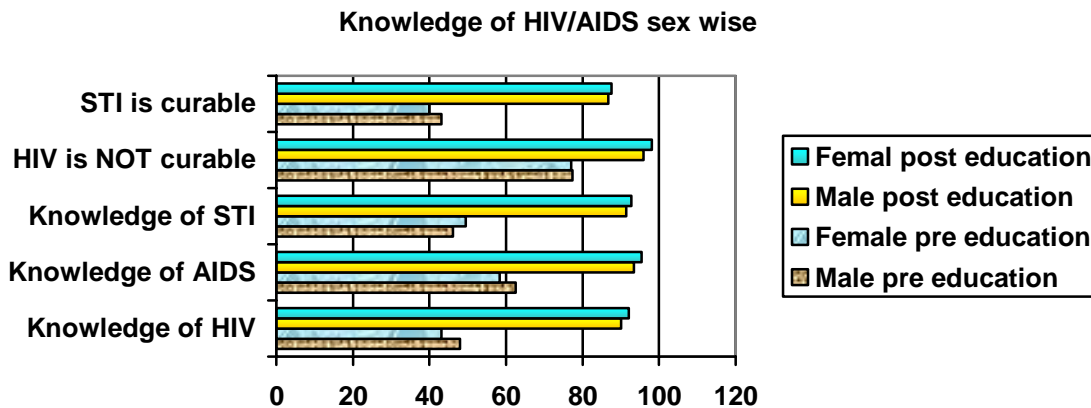


Table 3. Knowledge of transmission of HIV/AIDS

S. No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	By sex	96.4%	99.2%	0.019-0.021	<0.00019
2.	By IV Drug abuse	91.1%	96.9%	0.024-0.075	<0.00001
3.	Not by hand shake	93.0%	98.7%	0.03-0.07	<0.00001
4.	Not by hugging	93.5%	98.1%	0.02-0.06	<0.00001
5.	Not by sharing food	91.2%	97.8%	0.04-0.08	<0.00001
6.	Infected blood transfusion	92.4%	97.9%	0.03-0.07	<0.00001
7.	Not by mosquitoes/flyes	72.2%	91.9%	0.17-0.21	<0.00001
8.	By sharing same needle	65.2%	90.4%	0.23-0.27	<0.00001
9.	From pregnant mother to child	91.8%	97.1%	0.03-0.07	<0.00001
10.	Knowledge of causative agent	92.2%	99.4%	0.05-0.09	<0.00001

Bar Diagram 2. Sex wise distribution of knowledge of transmission of HIV/AIDS

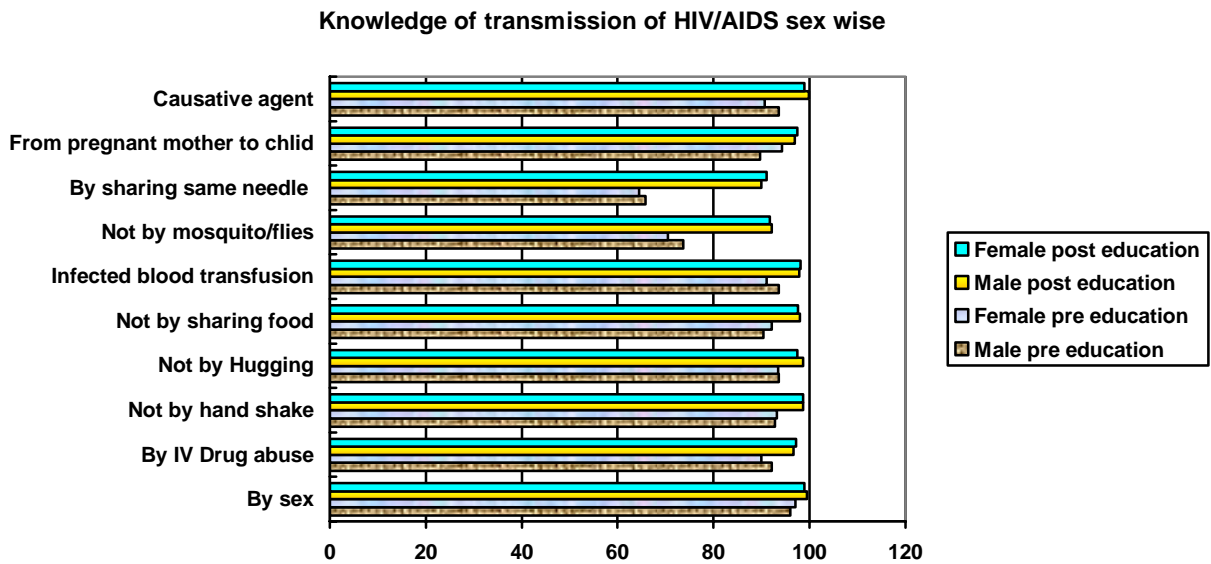


Table 4. Knowledge of high risk group for HIV/AIDS

S. No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	Female sex workers	89.3%	98.5%	0.07-0.11	<0.00001
2.	Individual with multiple sexual partner	89.1%	98.5%	0.06-0.10	<0.00001
3.	IV drug user	81.2%	98.5%	0.12-0.16	<0.00001

Bar Diagram 3. Sex wise distribution of knowledge of high risk group for HIV/AIDS

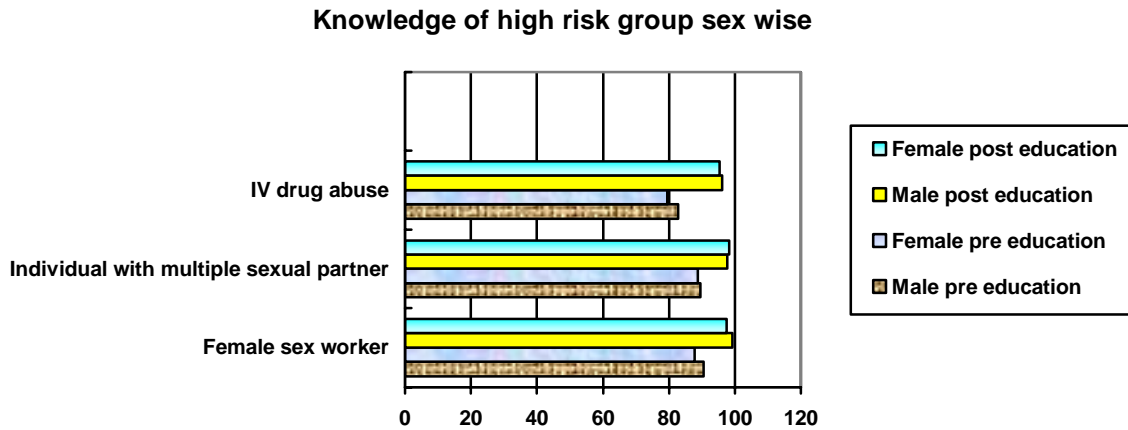


Table 5. Knowledge of symptoms of STI

S. No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	Genital ulcer	52.2%	90.6%	0.33-0.43	<0.00001
2.	Burning urine	45.2%	84.7%	0.34-0.44	<0.00001
3.	Pus in the urine	41.5%	85.5%	0.38-0.48	<0.00001
4.	Lower abdomen pain	31.8%	76.0%	0.39-0.49	<0.00001

Bar Diagram 4. Sex wise distribution of knowledge of symptoms of STI

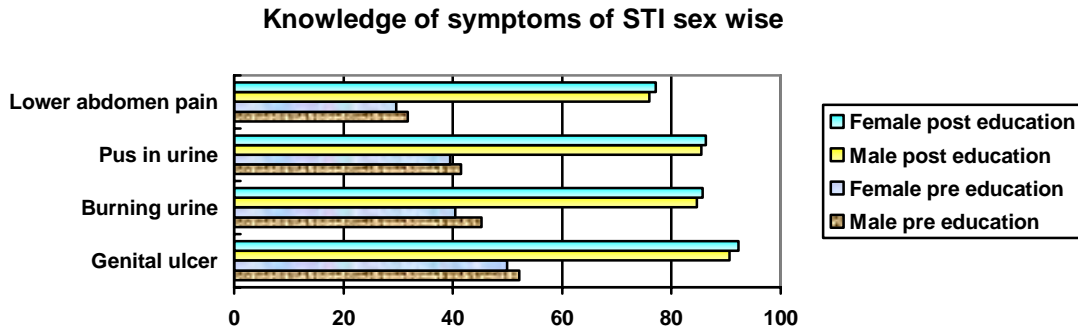


Table 6. Knowledge of prevention of HIV/AIDS

S. No	Particulars	Per-education	Post-education	Confidence interval	p-value
1.	Safe sex (Condom use)	92.6%	99.0%	0.04-0.08	<0.00001
2.	Single sexual partner	90.2%	96.6%	0.04-0.08	<0.00001
3.	Not using commercial blood	69.1%	92.1%	0.21-0.25	<0.00001
4.	Vaccine not yet available for HIV/AIDS	46.2%	81.8%	0.30-0.40	<0.00001

Bar Diagram 5. Sex wise distribution of knowledge of prevention of HIV/AIDS

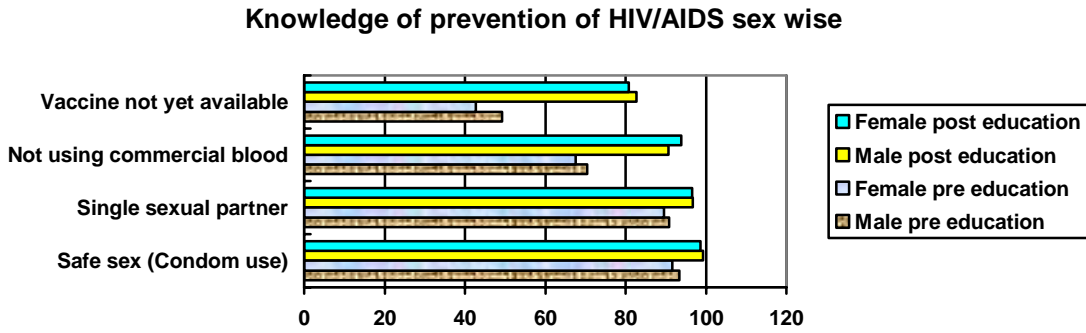


Table 7. Attitude towards HIV/AIDS positive patients

S. No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	Accept them	29.2%	55.7%	0.21-0.31	<0.00001
2.	Should be avoided	69.3%	43.9	-(0.30-0.20)	<0.00001
3.	Do not let them enter my house	0.4%	0.2%	-0.03-0.01	0.41352
4.	Stay away from them	1.2%	0.2%	-(0.17-0.01)	0.00732

Bar Diagram 6. Sex wise distribution of attitude towards HIV/AIDS positive patients

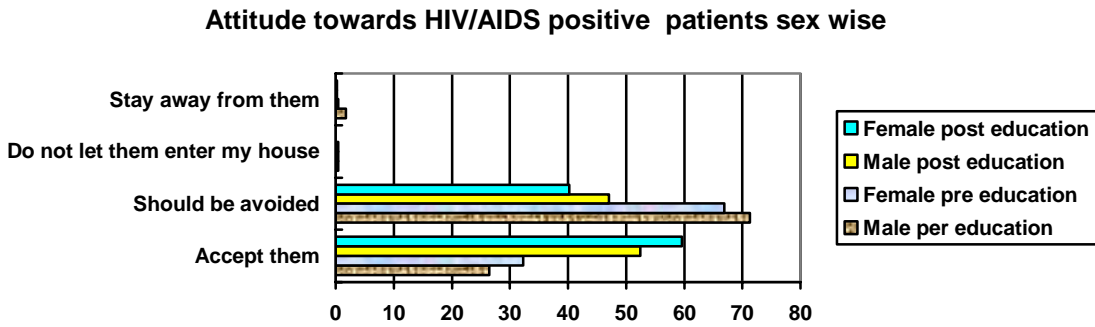
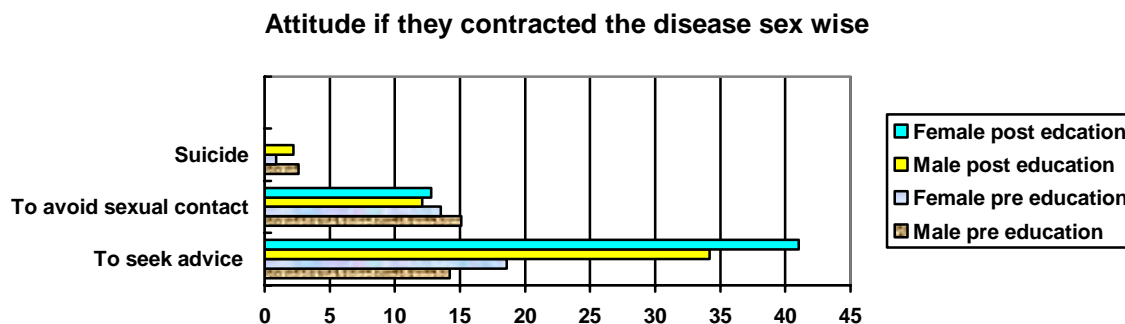


Table 8. Attitude if they contracted the disease

S. No	Particulars	Pre-education	Post-education	Confidence interval	p-value
1.	To seek advice with medical doctor and do treatment at hospital	16.2%	37.4%	0.19-0.23	<0.00001
2.	To avoid sexual contact and blood donation	14.3%	12.5%	-0.04-0.02	0.214910
3.	Suicide	1.8%	1.4%	-0.13-0.07	0.475991

Bar Diagram 7. Sex wise distribution of attitude if they contracted the disease.



Discussion

Pre-education knowledge of HIV (45.8%), curability of STI (41.7%) was low as compared to post education knowledge of HIV (91%) $p < 0.00001$ and curability of STI (87.2%) $p < 0.00001$. This means that the education programme was successful in spreading statistically significant knowledge of HIV and curability of STI. Though having higher level of knowledge about transmission of HIV/AIDS, there was significant improvement in the knowledge of transmission of HIV/AIDS.

There was statistically significant improvement in the knowledge about symptom of STI and prevention of HIV/AIDS, significant change in attitude of allowing HIV/AIDS patient inside their house 55.7% from 29.2% ($p < 0.00001$) was seen, and statistically significant improvement in attitude of seeking advice with medical doctor and do treatment at hospital once they suffer from HIV/AIDS 37.4% from 16.2% ($p < 0.00001$).

Knowledge about the causative agent of AIDS was high (92.2%) as compared to similar study in Eastern Nepal (23.8%) done by Lakhey S.¹⁰ *et. al.* The knowledge about safe sex (condom use) and single sexual partner as prevention of HIV/AIDS (92.6% and 90.2% respectively) was high among Kathmandu Valley high school students as compared to students of Eastern Nepal (73.3% and 27.6% respectively). The knowledge of the symptoms of STI was low among Kathmandu Valley students.

Conclusion

Numerous studies have shown that education brings about statistically significant increase in knowledge about HIV/AIDS and STI among adolescent school children. Our study also has shown statistically significant improvement in the knowledge and attitude after the education programme.

Thus education programme should be conducted among high school students, as Nepal is classified as

a country with a concentrated HIV/AIDS epidemic. Immediate and vigorous action must be taken to prevent further spread of HIV/AIDS among adolescence, high-risk group and general population.

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