

## Research Article

# Evaluating the Knowledge, Perception and Attitude of Students of Government Schools towards HIV/AIDS in Shimla

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**Abstract: Background:** Inadequate knowledge about HIV/AIDS, indulgence in risky health behavior leads the adolescents susceptible to this deadly disease. Objectives of the Study is to evaluate knowledge, attitude and perception, to know the correlation between knowledge, perception and attitude of students and to determine the association between the selected demographic variables with knowledge, perception and attitude score of students of Government schools towards HIV/AIDS. **Material & Methods:** This descriptive study was conducted among four senior secondary schools in Shimla city. A purposive sampling technique was used to select the schools and two classes from each school (11th -12th) were selected and 50 adolescents (age 14-19 yrs) from each class were included randomly. Information regarding their socio-demographic characteristics, knowledge, attitude and perception regarding HIV/AIDS were obtained using a self-administered, pre-tested, semi-structured questionnaire. Data was analyzed using Epi info v7 software using appropriate statistical tests. **Results:** In the present study most of the students (55.5% ) were in the age group of 17-19 years, maximum (60%) were male , 56.5% were in 10+ 2 class and 51.2% of the students having their source of information about HIV/AIDS were teachers. 31.5% having good knowledge, , 18.5% having good attitude and 15.8% having good perception about HIV/AIDS. A Correlation between attitude and knowledge & Perception of the students was found to be statistically significant Good knowledge about HIV/AIDS among students was significantly associated with 17- 19 years age group,10+2 class, joint family, higher educational level of father , higher educational level of mother and family having Monthly Income >10,000 (in rupees). Good attitude was significantly associated with higher educational level of mother and good perception was significantly associated with 10+2 class and family having Monthly Income >10,000 (in rupees). **Conclusion:**These finding indicate that there is need to further increase the knowledge, attitude and perception regarding HIV/AIDS that can be increased by ongoing teaching programmes to higher secondary school students.

**Keywords:** HIV/AIDS, Knowledge, Perception and Attitude of Students.

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## INTRODUCTION

HIV/AIDS is the most complex public health problems of the 21st century and has become a pandemic disease that threatens the entire world population. Since there is no treatment or cure in sight, this disease continues to spread at an alarming rate (WHO. 2008).

As per Indian HIV estimation 2015 report, adult (15-49 years) HIV prevalence was estimated to be 0.26% (0.22%-0.32%) in 2015 (0.30% among males and 0.22% among females). A steady decline has been observed in HIV prevalence from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015 as per report (NACO. Annual report 2017).

Global decline in new HIV infections among children is being reported but rate of decline is very slow which indicates that there is still need to improve knowledge of HIV/AIDS and HIV testing among adolescents (10-19 years) and young adults, as 59% of new infections are among younger people aged between 15-24 years (UNAIDS. 2018).

School children of today are exposed to the risk of being victims of the HIV/AIDS which was quite unknown to their predecessors. The epidemic of the HIV/AIDS is now progressing at a rapid rate among the young people. Many studies have reported that young people form a significant segment of those attending sexually transmitted infections (STIs) clinics and those infected by HIV/AIDS (Urmil, A. C. *et al.*, 1989).

In Himachal Pradesh, the public efforts to contain this hazard of HIV/AIDS are inadequate. India's traditional society and strong social prohibitions lead people to be less receptive to these controversial issues associated with this deadly infection and this is especially true in the traditional, rural population of Himachal Pradesh (Ghosh, S. *et al.*, 2008).

A number of knowledge, attitude, and practice studies conducted in different parts of India revealed widespread ignorance and misconceptions about this deadly disease among young people but no such study was done in this northern hilly state having different cultural pattern. Also this disease largely relies on prevention and the right information at the right time, so it is essential to bring about a behavioral change when the population is at most receptive period i.e. adolescent age. Hence, this study was undertaken with the objective to assess the knowledge, attitude and perception towards HIV/AIDS among Adolescent school children in the Shimla.

### Objectives of the Study

1. To assess the knowledge level, perception and attitude among the students of Government schools regarding HIV/AIDS in Shimla.
2. To analyze the correlation between knowledge, perception and attitude of students of Government schools towards HIV/AIDS in Shimla.
3. To determine the association between the selected demographic variables with knowledge, perception and attitude score of students of Government schools towards HIV/AIDS in Shimla.

## METHODOLOGY

The present study was Non-experimental descriptive study carried out to evaluate the knowledge, perception and attitude of students towards HIV/AIDS. Study comprised of students studying in higher secondary school in the age group of 14-19yrs which includes all stages as early, middle and late childhood.

The following are the four schools chosen for sample selection, students of age 14-19yrs. The data was collected by visiting each of four School.

S.No	Name of the Schools	Total No of students
1	Govt.Higher secondary school Sanjauli	100
2	Govt.Higher secondary school Bhattakuffer	100
3	Govt.Higher secondary school Dhalli	100
4	Govt.Higher secondary school chhotaShimla	100

### Inclusive Criteria

- Students available during the period of data collection in study setting.
- Students who were willing to participate in the study.

### Exclusion Criteria:

- Students who were not willing to participate in the study.
- Students who were not present during data collection.

The structured tool was introduced to students in different schools as per time and schedule given by the school authority. The written consent were obtained and asked to solve the questions thoughtfully.

### The tools for the study developed and prepared by taking the following steps:

**Section A-** Socio-demographic characteristics of the student ( Age, Gender, Class, Educational status of parents, Occupation, Type of family, Source of information regarding HIV/AIDS ).(Annexure-1).

**Section B-** There are twenty structured knowledge questionnaire having four options the student have to

choose right one. Scoring was done on the basis of marks. As >80%=very good, 60-79%=Good, 41-59%=Fair, <40%=poor.

**Section C-** There are ten questions of perception having the 5 option Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. Scoring was done on the basis of marks. As >80%=very good, 60-79%=Good, 41-59%=Fair, <40%=poor.

**Section D-** There are ten questions of Attitude based on Liker scale i.e Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree. Scoring was done on the basis of marks.as >80%=very good, 60-79%=Good, 41-59%=Fair, <40%=poor.

### Scoring:

Scoring of knowledge of students regarding HIV/AIDS will be scored as following.

**Section B -** One mark will be given for each correct answer and zero for incorrect answer. The maximum score will be 20 and minimum score will be zero. To interpret knowledge of higher secondary school students which was distributed as follows.

SR. NO.	SCORE	LEVEL OF KNOWLEDGE	PERCENTAGE
1.	< 8	Poor	< 40%
2.	8 – 11	Fair	40%-59%
3.	12 – 15	Good	60% 79%
4.	16 -20	V.Good	>80%

### Section C and D

Point rating scale was prepared to assess the attitude and perception of senior secondary school students regarding HIV/AIDS. There were 10 statements

in each section and it consists of total 50 marks. There were positive and negative statements. Positive statements were scored 5, 4, 3, 2, 1, and negative statements were scored 1, 2, 3, 4, 5, respectively.

### Criteria Measure of Attitude and Perception Score

Sr. No.	Category	Score	Percentage
1.	Poor	<20	< 40%
2.	Fair	20-29	40%-59%
3.	Good	30-39	60% 79%
4.	V.Good	40-50	>80%

Ethical approval was taken from the Institutional Ethical Committee of Himalayan University for conducting the study. Further permission was taken from Principals of Higher secondary schools Bhattakuffer, Sanjauli, Dhalli, Chhota, Shimla.

Written informed consent was taken from the students of study subjects regarding their willingness to participate. The purpose for carrying out research project was explained to the participant and assurance for confidentiality was given. The data obtained would be analyzed using both descriptive and inferential statistics with the help of Epi info v7 software.

## RESULTS OF DATA

**Table 1:** Socio-demographic characteristics (Age) of students

Demographic Characteristics	Number of Students	Percent
Age In Years		
14-16 Years	178	44.5
17- 19 Years	222	55.5
Gender		
Male	240	60
Female	160	40
Class		
10+1	174	43.5
10+2	226	56.5
Type Of Family		
Joint	321	80.3
Nuclear	60	15
Expanded	18	4.5
Extended	1	0.2
Educational Status Of Father		
Illiterate	13	3.3
Primary	24	6.0
Middle	101	25.3
Senior Secondary	164	41.0
Graduate	81	20.3
Post Graduate	17	4.3
Educational Status Of Mother		
Illiterate	18	4.5
Primary	40	10.0
Middle	131	32.8
Senior Secondary	139	34.8
Graduate	63	15.8
Post Graduate	9	2.3
Source Of Information		
Parents	121	30.3
Teachers	205	51.2

Peers	12	3.0
Media	62	15.5

In the present study 44.5% of the students fall in age group of 14-16 years while 55.5% were in the age group of 17-19 years. In the current study 60% of students were male and 40% were female. 43.5% students were of 10+1 class and 56.5% were in 10+ 2 class.80.3% students belong from joint family while 15% were from nuclear family, 4.5 % from expanded family and 0.2% from extended family.

In the present study 41% Of students father were have educational status upto senior secondary

level, 25.5%have upto middle class, 20.3 %have graduate degree, 6% have education upto primary level , 4.3% have Post graduation degree and 3.3 were illiterate. Among the educational status of student's mother, 34.8% were having education upto senior secondary level, 32.8% having education upto middle class, 15.8% have graduate degree, 10% having education upto primary school level, 4.5% were illiterate and 2.3 % were having post graduate degree.

**Table 2:** Knowledge of students about HIV/AIDS

Category (marks)	Number Of Students(n=400)	Percent
V. Good (16-20)	11	2.75
Good (12-16)	126	31.5
Fair (8-12)	170	42.5
Poor (<8)	93	23.25

Maximum =20 Minimum=0

In the present study 2.75 % students having very good knowledge (16-20 marks) about HIV/AIDS, 31.5% having good knowledge(12-16marks ), 42.5%

having fair knowledge(8-12 marks ) and 23.25% students having poor knowledge(<8marks).

**Table 3:** Attitude of students about HIV/AIDS

Category (Marks)	Number Of Students	Percent
V. Good (40-50)	5	1.3
Good (30-40)	74	18.5
Fair(20-30)	262	65.5
Poor(<20)	59	14.8

Maximum =50 Minimum=10

In the present study 1.3 % students having very good attitude(40-50 marks) towards HI/AIDS, 18.5% having good attitude (30-40 marks), 65.5%

having fair attitude (20-30 marks) and 14.8% having poor attitude (<20 marks).

**Table 4:** Perception of students about HIV/AIDS

Category (Marks)	Number Of Students	Percent
V. Good (40-50)	7	1.8
Good (30-40)	63	15.8
Fair(20-30)	264	66.0
Poor(<20)	66	16.5

Maximum =50 Minimum=10

In the present study 1.8 % students having very good perception (40-50 marks) towards HI/AIDS, 15.8% having good perception (30-40 marks), 66.0%

having fair perception (20-30 marks) and 16.5% having poor perception(<20 marks).

**Table 5:** Relation among knowledge, attitude and perception scores

	Attitude	Perception	Knowledge
Mean (marks)	34.94	35.01	10.03
Median(marks)	35.00	35.00	10.00
Std. Deviation	5.432	5.055	3.019
Minimum	14	14	1
Maximum	48	45	17

In the present study mean marks and standard deviation of knowledge, attitude and perception of students were 10.03±3.019, 34.94±5.432 and 35.01±5.055 respectively .among knowledge minimum and

maximum marks were 1 an 7, among attitude they were 14 and 48 while in perception they were 14 and 45 respectively.

**Table 6:** Correlations between attitude and knowledge

	Mean	Std. Deviation	N	Pearson Correlation	P value	Result
Attitude	34.94	5.432	400	.285**		
Knowledge	10.03	3.019	400		0.000	Significant
Knowledge	10.03	3.019	400	.075	0.137	Not Significant
Perception	35.01	5.055	400			
PEREPTION	35.01	5.055	400	.219**	0.000	Significant
ATTITUDE	34.94	5.432	400			

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

Table shows the Correlations between attitude and knowledge of the students was found to be statistically significant. (p value <0.05) Correlations between knowledge and perception of the students was

not found to be statistically significant. (p value >0.05) Correlations between attitude and perception of the students was found to be statistically significant (p value < 0.05).

**Table 7:** Association of knowledge with various socio-demographic factors

Demographic Data			Levels of Association with KNOWLEDGE Score					
Variables	Opts	KNOWLEDGE(N=400)			total	Chi Test	P Value	Result
		Good	Poor					
Age in years	14-16 years	39	139	178	21.687	<b>0.00</b>	Significant	
	17- 19 years	98	124	222				
Sex	Male	51	109	160	.668 <sup>a</sup>	.452	Not Significant	
	Female	86	154	240				
Class	10+1	22	152	174	63.842 <sup>a</sup>	<b>0.00</b>	Significant	
	10+2	115	111	226				
Type of Family	Joint	130	225	355	7.869 <sup>a</sup>	.004	Significant	
	Nuclear	7	38	45				
Educational Status of Father:	< 10 <sup>th</sup>	19	105	124	28.589 <sup>a</sup>	.000	Significant	
	>10 <sup>th</sup>	118	158	276				
Educational Status of mother	< 10 <sup>th</sup>	44	126	170	9.192 <sup>a</sup>	.003	Significant	
	>10 <sup>th</sup>	93	137	230				
Occupation of father	Employed/ business	129	233	362	3.248 <sup>a</sup>	.075	Not Significant	
	Unemployed	8	30	38				
Occupation of mother	Employed/ business	24	58	82	1.137 <sup>a</sup>	.300	Not Significant	
	Unemployed /housewife	113	205	318				
Monthly Income of Family (in rupees)	<10, 000	23	99	122	18.481 <sup>a</sup>	.000	Significant	
	>10, 000	114	164	278				
Source of Information	Parents/ Teachers	108	218	326	.984 <sup>a</sup>	.344	Not Significant	
	Peers/media	29	45	74				

Table shows the Association of knowledge with various socio-demographic factors. In the present study good knowledge about HIV/AIDS among students was significantly associated with 17- 19 years

age group, 10+2 class, joint family, higher educational level of father , higher educational level of mother and family having Monthly Income >10, 000 (in rupees).

**Table 8:** Association of Attitude with various socio-demographic factors

Demographic Data		Levels of attitude (N=400)			Association with attitude Score		
Variables	Opts	Good	Poor	total	Chi Test	P Value	Result
Age in years	14-16 years	142	36	178	.046 <sup>a</sup>	.900	Not Significant
	17- 19 years	179	43	222			
Sex	Male	130	30	160	.168 <sup>a</sup>	.703	Not Significant
	Female	191	49	240			
Class	10+1	137	37	174	.446 <sup>a</sup>	.528	Not Significant
	10+2	184	42	226			
Type of Family	Joint	282	73	355	1.317 <sup>a</sup>	.322	Not Significant
	Nuclear	39	6	45			
Educational Status of Father	< 10 <sup>th</sup>	100	24	124	.018 <sup>a</sup>	1.000	Not Significant
	>10 <sup>th</sup>	221	55	276			
Educational Status of mother	< 10 <sup>th</sup>	144	26	170	3.704 <sup>a</sup>	.058	Significant
	>10 <sup>th</sup>	177	53	230			
Occupation of father	Employed/ business	289	73	362	.416 <sup>a</sup>	.669	Not Significant
	Unemployed	32	6	38			
Occupation of mother	Employed/ business	66	16	82	.004 <sup>a</sup>	1.000	Not Significant
	Unemployed /housewife	255	63	318			
Monthly Income of Family (in rupees)	<10, 000	101	21	122	.713 <sup>a</sup>	.417	Not Significant
	>10, 000	220	58	278			
Source of Information	Parents/ Teachers	258	68	326	1.367 <sup>a</sup>	.263	Not Significant
	Peers/media	63	11	74			

Table shows the Association of attitude with various socio-demographic factors. In the present study good attitude about HIV/AIDS among students was

significantly associated with higher educational level of mother.

**Table 9:** Association of Perception with various socio-demographic factors

Demographic Data		Levels of perception (N=400)			Association with perception Score		
Variables	Opts	Good	Poor	total	Chi Test	P Value	Result
Age in years	14-16 years	147	31	178	.002 <sup>a</sup>	1.000	Not Significant
	17- 19 years	183	39	222			
Sex	Male	135	25	160	.649 <sup>a</sup>	.502	Not Significant
	Female	195	45	240			
Class	10+1	151	23	174	3.910 <sup>a</sup>	.053	Significant
	10+2	179	47	226			
Type of Family	Joint	295	60	355	.783 <sup>a</sup>	.405	Not Significant
	Nuclear	35	10	45			
Educational Status of Father	< 10 <sup>th</sup>	101	23	124	.137 <sup>a</sup>	.776	Not Significant
	>10 <sup>th</sup>	229	47	276			
Educational Status of mother	< 10 <sup>th</sup>	143	27	170	.536 <sup>a</sup>	.507	Not Significant
	>10 <sup>th</sup>	187	43	230			
Occupation of father	Employed/ business	298	64	362	.085 <sup>a</sup>	1.000	Not Significant
	Unemployed	32	6	38			
Occupation of mother	Employed/ business	66	16	82	.289 <sup>a</sup>	.625	Not Significant
	Unemployed /housewife	264	54	318			
Monthly Income of Family (in rupees)	<10, 000	111	11	122	8.751 <sup>a</sup>	.003	Significant
	>10, 000	219	59	278			
Source of Information	Parents/ Teachers	272	54	326	1.068 <sup>a</sup>	.311	Not Significant
	Peers/media	58	16	74			

Table shows the Association of perception with various socio-demographic factors. In the present study good perception about HIV/AIDS among students was significantly associated with 10+2 class and family having Monthly Income >10, 000 (in rupees)

## DISCUSSION

Finding of present study reveals that 2.75 % students having very good knowledge (16-20 marks) about HIV/AIDS, 31.5% having good knowledge(12-16marks ), 42.5% having fair knowledge(8-12 marks ) and 23.25% students having poor knowledge(<8marks).

Agarwal S *et al.*, (2010). in their study on 100 students in the city of Hyderabad found that knowledge about HIV/AIDS was average and the attitude towards people with HIV/AIDS was positive among the students which is similar to our study findings. Study by Thanavanh B (2016) on high school students in Lao people democratic republic revealed that the majority of students were aware that HIV. Positive attitudes towards HIV/AIDS were observed among 55.7% of respondents...

In the present study significant relationship was found between knowledge/ attitude and attitude /perception (p value < 0.05). Similar results was seen in the study conducted by Vijayageetha M *et al.*, (2016) and Dwivedi D *et al.*, (2015).

The main source of information in the present study is being teachers and parents. Study by in the study done by Thanavanh B *et al.*, (2016) three quarters of students mentioned television and radio as major sources of information on HIV/AIDS which is against our study findings. Dwivedi D *et al.*, (2015) in their study on 240 students from Aligarh Muslim University in Distt. of U.P found that the male students were significantly more aware towards AIDS as compared to female counterparts which is against our study findings. In the study conducted by Kumar P *et al.*, (2012), males (83%) outnumbered in this regard than females(53%).60% were aware about mode of transmission which is against our study findings. Sood S (2016) in their study on 100 students from Laddakh revealed that male Laddakh students held more favorable attitude toward premarital sex, polygamy and pornography than female students. In comparison to male participants , young female participants reflected favourable attitude toward establishing same sex relationship which is against our study findings. Othman S M *et al.*, (2014) in their study found Significant association between knowledge level and among group having age more than 19years and students with high socioeconomic status which is similar to our study.

## CONCLUSION

Our study indicates the presence of substantial lacunae in knowledge regarding AIDS in the population

studied. One third of senior secondary school students had good knowledge. Only one fifth of students had good attitude and perception toward HIV/AIDS. There was significant relationship between knowledge/ attitude and attitude /perception. (p value < 0.05). Major source of information about HIV/AIDS were teachers and parents.

## Recommendations

On the basis of finding of study, it is recommended that this similar study can be conducted in other areas on a large group. A similar study may be done in different settings (convent schools). Follow up studies can be done. A comparative study can be conducted on adolescents studying in rural and urban areas. There is need to further increase the knowledge regarding HIV/AIDS and to clear the misconceptions regarding the disease that can be increased by on going teaching programmes to higher secondary school students. Life skill education with HIV awareness should be implemented in schools.

## Limitations

The study was confined to small number of subjects (400) which limits the generalisation of finding to only the study sample. Generalisation was limited to only selected government schools of Shimla. The study was limited to government higher secondary school students (age 14-19 yrs).

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