Research Article

A quasi-experimental study to assess the effectiveness of structured teaching program regarding HIV-AIDS among the student of selected Jr. college in Aurangabad city

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Abstract

There are over 17.5 million people living with HIV/AIDS infection in the world today. India has the second highest number of people living with HIV/AIDS in the world. Therefore, a study was conducted to assess the effectiveness of structured teaching program regarding HIV-AIDS among the student of selected JR. College in Aurangabad city. Aim: To assess the pre-test knowledge regarding HIV-AIDS among the student of JR. college. To administer and find out the effectiveness of structured teaching program on HIV /AIDS among the student of JR. College. To find out association between the knowledge scores of HIV/AIDS with selected demographic variables. Methods: A Quasi Experimental study to assess the effectiveness of structured teaching program regarding HIV-AIDS among the student of selected JR. College in Aurangabad city. The sample consisted of 60 college students from Chate Jr. College Aurangabad, selected according to convenient sampling method and availability. Structured questionnaire was use to assess the knowledge regarding HIV-AIDS among college students. The pilot study was conducted and found feasible. Final study was carried out on 60 college students from Chate Jr. College. The data collected were analyzed with descriptive and inferential statistics using frequencies, percentage, mean, and mean percentage and standard deviation. Effect of structure teaching program (STP) was analyzed by paired t-test. Chi-square test was used to find the association with demographic variables. The pre test mean knowledge score of college students regarding HIV-AIDS was 15.733 and the mean post test knowledge score was 23.76. The mean percentage of college students regarding HIV-AIDS was 27.59% the mean post test percentage was 39.6%.

Key words: Structured teaching programme (STP), Students; HIV/AIDS, structured teaching program

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1. Introduction

The first case report of HIV in India was occurred in 1986 from Chennai. Since then there was a increase in the number of HIV infections over the years. Based on National AIDS Control Organization (NACO), it was estimated that over 3.8 million people were infected with HIV and AIDS in India during the year 2000. Over 20,000 cases of AIDS have been reported to NACO by States till 31st March 2001. Studies was carried out in various parts of the country have confirmed that HIV infection has spreaded from high-risk population to general population in India (1). Acquired Immune Deficiency Syndrome - AIDS. A person is diagnosed with AIDS when their immune system is too weak to fight off infections. AIDS is caused by HIV (2). Since AIDS was first identified in the early 1980 s, an unprecedented number of people have been affected by the global AIDS epidemic (3). Today, there are an estimated 33.4 million people living with HIV/AIDS and every year around two million people die from AIDS.

Historically the assumption of an active sexual life was thought to be situated in heterosexual monogamous relationship between young adults. Today initiative of sexuality reflects wide acceptance of different kinds of intimate relationship leads to dangerous diseases. This phenomena relatively bad life style creates a dangerous dilemma for many people who are engaging unprotected sex. It brings pleasure, yet invites early pregnancy as well as exposure to human immune

deficiency virus (HIV) and other potentially emerging sexually transmitted diseases (STD) (4).

Sexually transmitted diseases - 'STD' are infections transmitted from one person to another during intercourse or other intimate contact. The other sexually transmitted diseases are AIDS, genital herpes, genital marts, gonorrhea, syphilis, Chlamydia, and hepatitis B. The people sometimes believe that STD's affects some category of people. The fact is that sexually transmitted disease can affect men and women from all categories. It's based on the fact that who is having unprotected sex and sex with multiple partners. Often people who have contracted STD's show no symptoms, but as long as they are infected they can spread the disease on to their sexual partners (5).

The other area where everyone trends slightly is morality of sexual intimacy. The desire to have sex is normal and healthy. But identify the permissible age, ethics of abstinence and virtues of virginity. Even though AIDS and STD can be treated if caught in the early stages, but "prevention is better than cure" (6).

Aim:

- To assess the pre-test knowledge regarding HIV-AIDS among the student of JR. college.
- To administer and find out the effectiveness of structured teaching program on HIV /AIDS among the student of JR. College.
- To find out association between the knowledge scores of HIV/AIDS with selected demographic variables.

Statement of problem:

"A study to assess the effectiveness of structured teaching program on knowledge regarding HIV-AIDS among the student of selected JR. College in Aurangabad city."

Hypothesis:

- H_1- There is significant difference in the pre test and post test level of knowledge regarding the HIV-AIDS.
- H_2- There is no significant association between the knowledge score regarding the HIV-AIDS of the students and the demographic variables.
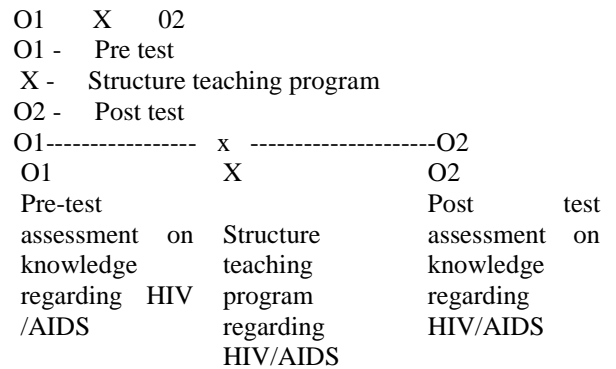
Need for study:

AIDS was first clinically identified in 1981 in the United States. The initial cases were a group of injecting drug users and homosexual men with no known cause of impaired immunity who showed symptoms of Pneumocystis carinii pneumonia (PCP) (7). The present study is aimed at developing and evaluating the effectiveness of structured teaching program on knowledge regarding HIV-AIDS in selected conditions.

2. Methods

The present study was intended to assess the knowledge and structure teaching program regarding HIV/ AIDS and their relationship with the selected demographic variables. Quasi experimental design of one group pretest post test (8).

O1   X   02
O1 -   Pre test
 X -   Structure teaching program
O2 -   Post test
O1---------------- x --------------------O2

O1	X	O2
Pre-test assessment on knowledge regarding HIV /AIDS	Structure teaching program regarding HIV/AIDS	Post test assessment on knowledge regarding HIV/AIDS

Inclusion Criteria

- Student who are willing to participate
- Student who can read and write English.
- Student who are present at the time of the study.

Exclusion Criteria

- Student who are not willing to participate.
- Student who doesn't know to read and write English.
- Student who are absent at the time of the study.

Variables of the study

Independent Variable

The independent variable of the study is structure teaching program.

Dependent Variable

The dependent variable of the study is knowledge regarding HIV-AIDS

The research design compares the variation before and after structured teaching program. The sample size comprised of 60 JR college students who met with the inclusion criteria using non probability convenient sampling technique. A structured questionnaire was developed for assessing the level of knowledge among the students (9). The tool was based on the objectives of the study and consists of

Section I: Demographic variables such as age, gender, religion, education, occupation, income, type of the family, source of information.

Section II: Questionnaire which contains 30 closed ended questions regarding knowledge on HIV /AIDS. Each right answer scores 1 mark and wrong answer scores no marks.

Score interpretation

Adequate	21-30 (> 75%)
Moderate	11-20 (50-75%)
Inadequate	>10 (< 50%)
Total knowledge score was 30	

The reliability is calculated by Karls Pearson's correlation coefficient method and the reliability of our study is 0.82 and it is reliable & feasible to conduct main study (10).

The pilot study was conducted with 6 student of JR College who was studying in Shri Mansingrao Pawar JR College, Aurangabad by using non probability convenient sampling on 16-03-2016. The results in the pretest majority (83.33%) students was having inadequate score level. In the posttest knowledge score majority (83.33%) students was having moderate score level.

Plans for data analysis:

• The data was analyzed based on the objectives of the study using descriptive and inferential statistics (11).
• Frequencies and percentage for analysis of the demographic variables.
• Mean and percentage for knowledge score.
• Paired "T" test used to find out the effectiveness of structured teaching program on HIV-AIDS.
• Chi-square test was used to find significant difference between the variables.

3. Results

• **Section-1:** Distribution of respondents according to demographic variables.

• **Section-2:** Overall and aspect wise knowledge scores of respondents.

• **Section-3:** Association between demographic variables and post-test knowledge scores.

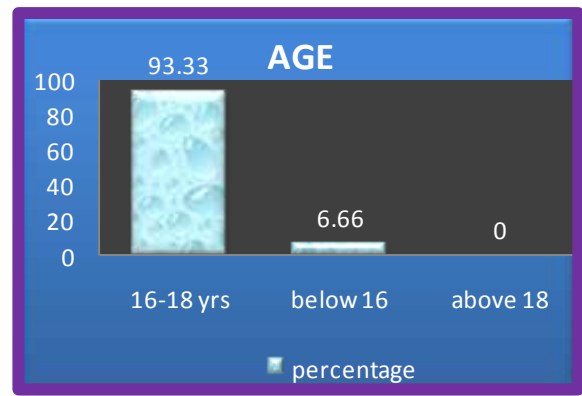**Section - 1: Distribution of respondents according to demographic variables**

Figure – 1: distribution of respondents by age

Figure.1 depict that majority of the respondents 93.33% of were in the age group of 16 to 18 years followed by 6.66% in the age group of Below 16years and 00% in the age group of Above 18years.
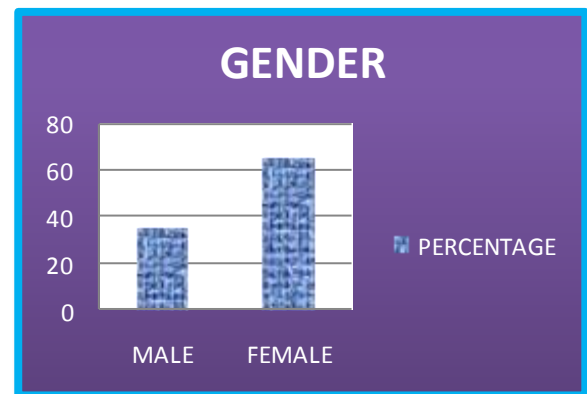

Figure – 2: distribution of respondents by gender

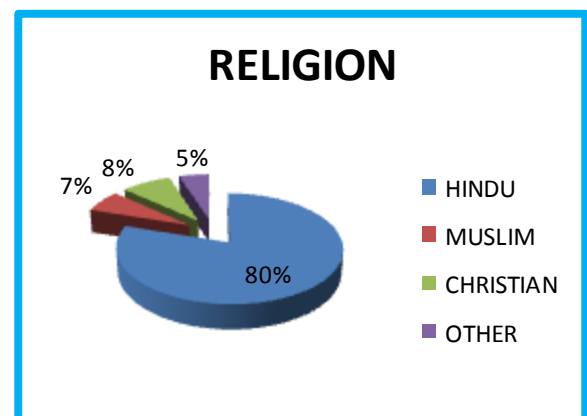Figure.2 shows that majority 65% of the respondents were females and 35% were males.

Figure – 3: distribution of respondents by religions

Figure.3 shows that majority 80% of the respondents are belongs to Hindu religion, 6.66% of respondents are belongs to Muslim religion, 8.33% respondents are

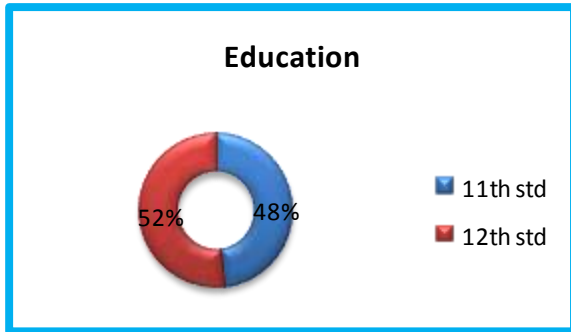belongs to Christian religions and 5% are belongs to other religions.

Education

Figure–4: distribution of respondents by education

Figure.4 shows that majority (51.66%) of respondents were in 12[th]std, and (48.33%) of respondents were in 11th Std.
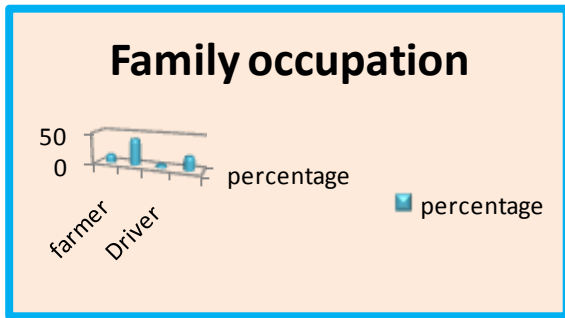
Family occupation

Figure – 5: distribution of respondents by family occupation

Figure.5 shows that majority 41.66% of the respondent's family were doing Business, 13.33% of the respondents family were farmers, 8.33% of the respondents family were driver and 36.66% respondents family were doing other occupations
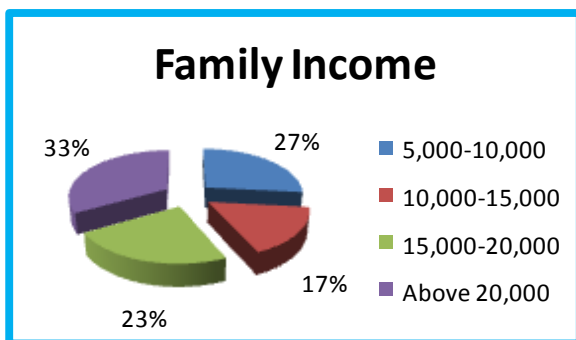
Family Income

Figure – 6: distribution of respondents by family income

Figure.6 shows that majority 33.33% of the respondents family income is above 20,000 Rs, 23.33% of the respondents family income is 15,000 to

20,000 Rs, 16.66% of the respondents family income is 10,000to15,000 Rs and 26.66% of the respondents family income is 5,000 to 10,000 Rs.
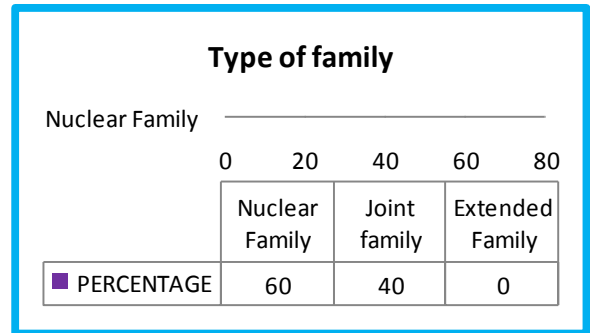
Type of family

Nuclear Family			
	Nuclear Family	Joint family	Extended Family
■ PERCENTAGE	60	40	0

Figure – 7: distribution of respondents by type of family

Figure.7 depict that majority of the respondents 60% of were belongs to nuclear family followed by 40% are belongs to joint family and0.00% are belongs to extended family.
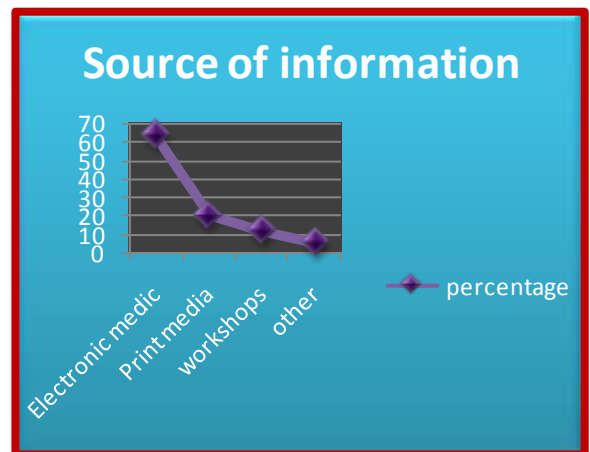
Source of information

Figure –8: distribution of respondents by source of information

Figure.8 shows that majority 63.33% of the respondents had information from the electronic media, 20% of the respondents had information from the print media and 11.66% of respondents are got information from workshop and 5% of respondents are got information from other sources.
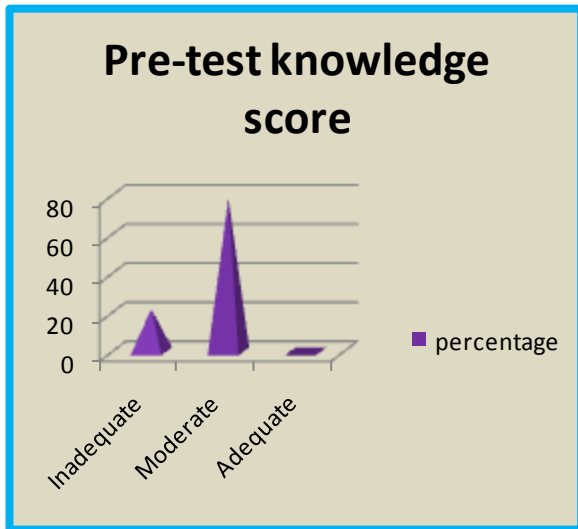
Section-2:

Figure - 9: Overall and aspect wise knowledge scores of respondents.(pre-test)

Figure.9 shows that in pretest majority i.e. 47 (78.33%) of college students had moderate knowledge regarding HIV-AIDS and 13(21.66%) had inadequate knowledge score.
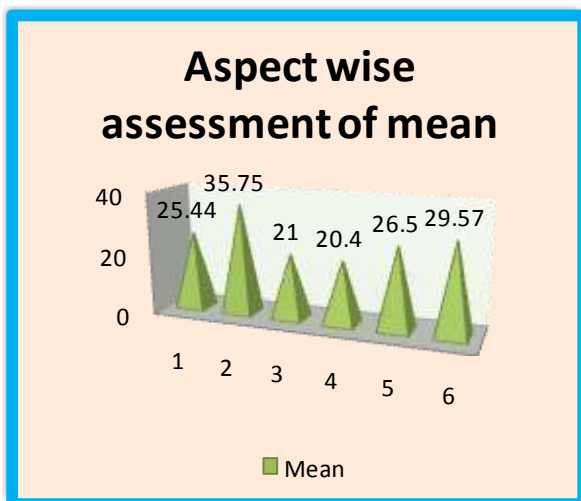

Figure -10: aspects wise assessment of mean, sd, and mean % of knowledge scores (pre-test).

Figure.10 shows that area wise distribution of mean, SD and mean percentage of pre test knowledge scores reveals that during pretest the highest mean score (35.75) was 62.71% of the total score was observed on the area of "transmission of HIV-AIDS" whereas the lowest mean score (20.4) was 40.8% of

the total score was observed on the area of "Symptoms of HIV-AIDS". The overall mean score (15.73) was 27.59% of the total score and it reveals that the samples had moderate knowledge during pretest.
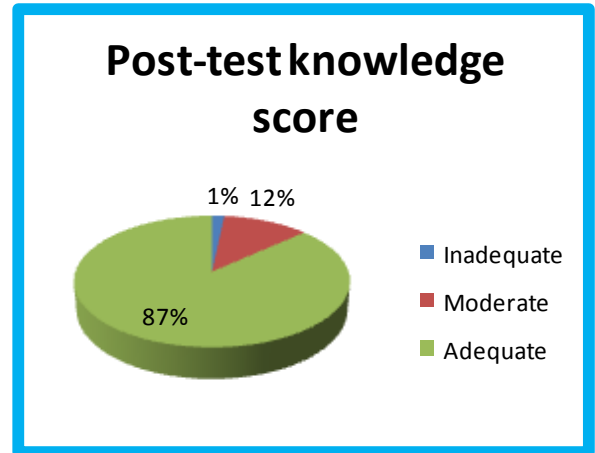

Figure -11: Level of Knowledge score of college students regarding HIV-AIDS. (Posttest knowledge score)

Figure.11 shows that in post-test majority i.e. 52 (86.66%) of college students had adequate knowledge regarding HIV-AIDS and 1(1.66%) had inadequate knowledge score.

Figure -12: Aspects wise assessment of mean, SD, and mean % of knowledge scores (post-test).

Figure.12 that area wise distribution of mean, SD and mean percentage of posttest knowledge scores reveals that during posttest the highest mean score (55.75) which was 97.80% .The overall mean score was 23.76 with mean percentage of 39.6% reveals that the samples had Adequate knowledge after implementation of Structured teaching program (STP).
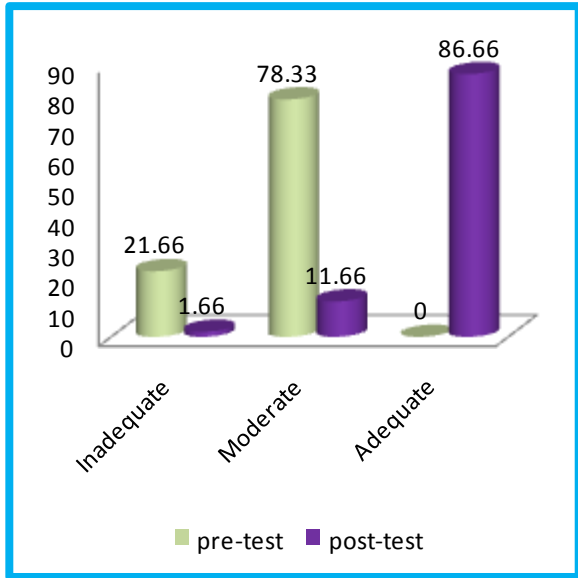
Figure-13: classification of respondents on knowledge level on hiv-aids

Figure. 13 depicts that in pre test 21.66% of them had inadequate knowledge, 78.33% of them had moderate knowledge and none of them had adequate knowledge. Where as in post test 86.66% of respondents had adequate knowledge, 11.66% had moderate knowledge and 1.66% of respondents had inadequate knowledge. However, the Chi square test indicates the significant difference in the knowledge level of students about the HIV-AIDS (χ^2 = 105.94*, P< 0.05).
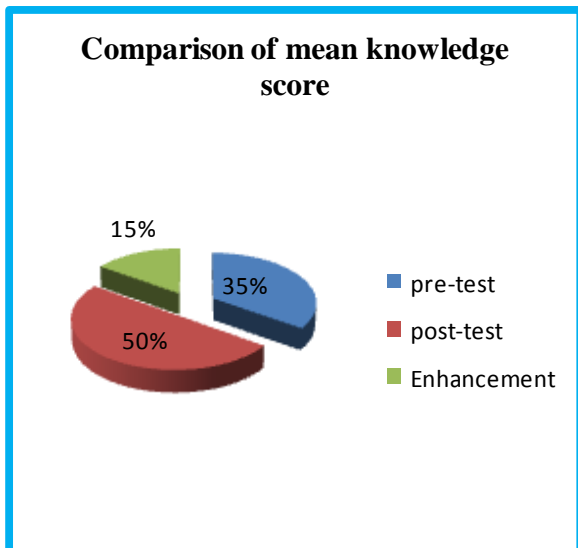

Figure -14: over all pre test and post test mean knowledge on hiv-aids.

Figure.14 depicts that pre test mean knowledge score was 27.59% and post test value was 39.6%.with enhancement of 12.01%, with paired "t" test value of

19.77*.It is significant at 5% level. There exists a statistical significance in the enhancement of knowledge scores indicating the positive impact of intervention programme.

Figure -15: aspect wise distribution of mean pre test and post test knowledge on hiv-aids.

Figure.15 indicates the aspect wise mean pre and post test score on HIV-AIDS. The pre test mean knowledge score regarding Introduction aspect was 25.44% and the post-test score is 47.55%, Transmission aspect was 35.75% and the post test score is 55.75%. The pre test mean knowledge score regarding patho-physiology aspect was 21% and the post-test score is 52.66%, symptoms aspect was 20.4% and the post test score is 44%. The pre test mean knowledge score regarding Diagnosis aspect was 26.5% and the post-test score is 41%, prevention aspect was 29.57% and the post test score is 45.85%.

Section - 3: Association between Demographic variables and Post Test Knowledge level of Respondents on HIV-AIDS.

Table – 1: Association between Age, gender, religion and education and Post test Knowledge level on HIV-AIDS.

N=60

Demographic Variables	Category	Sample	Inadequate		Moderate		Adequate		χ^2 value	df	Table value	P value
			N	%	N	%	N	%				
Age Group (years)	16 -18	56	00	00	06	10	50	83.33	16.9	2	5.99	0.05 (S)
	Below 16	04	1	1.66	1	1.66	2	3.33				
	Above 18	00	00	00	00	00	00	00				
Gender	Male	21	01	1.66	04	6.66	16	26.66	3.73	2	5.99	0.05 (NS)
	Female	39	00	00	03	05	36	60				
Religion	Hindu	48	1	1.66	7	11.66	40	66.66	2.09	6	12.59	0.05 (NS)
	Muslim	04	00	00	00	00	04	6.66				
	Christian	05	00	00	00	00	05	8.33				
	Others	03	00	00	00	00	03	05				
Education	11th std.	29	00	00	02	3.33	27	45	2.29	2	5.99	0.05 (NS)
	12th std.	31	1	1.66	5	8.33	25	41.66				

{S- significant: NS- Non-significant}

Table 1 depicts that Association between Age, gender, religion and education and Post test Knowledge level on HIV-AIDS. The chi-square value of gender is 3.73*, religion is 2.09 and education is 2.29* hence it is non significant.

Table – 2: Association between Family occupation, income, type of family, source of information and Post test Knowledge level on HIV-AIDS.

N=60

Demographic Variables	Category	Sample	Inadequate		Moderate		Adequate		χ^2 value	Df	Table value	P value
			N	%	N	%	N	%				
Family Occupation	Farmer	08	00	00	1	1.66	7	18.66	2.69	6	12.59	0.05 (NS)
	Business	25	08	8.66	4	6.66	20	33.33				
	Driver	05	00	00	00	00	05	8.33				
	Other	22	00	00	02	3.33	20	33.33				
Family Income(RS)	5,000-10,000	16	00	00	02	3.33	14	23.33	8.51	6	12.59	0.05 (NS)
	10,000-15,000	10	1	1.66	1	1.66	8	13.33				
	15,000-20,000	14	00	00	00	00	14	23.33				
	Above 20,000	20	00	00	04	6.66	16	26.66				
Type of family	Nuclear family	36	00	00	04	6.66	32	53.33	1.56	2	5.99	0.05 (NS)
	Joint family	24	1	1.66	3	5	20	33.33				
	Extended family	00	00	00	00	00	00	00				
source of information	Electronic media	38	1	1.66	6	10	21	51.66	5.15	6	12.59	0.05 (NS)
	Print media	12	00	00	00	00	12	20				
	Workshops	07	00	00	00	00	7	11.66				
	Any other,	03	00	00	01	1.66	2	3.33				

Table 2 indicates the Association Family occupation, income, type of family, source of information and Post test Knowledge level on HIV-AIDS. The chi-square value of Family occupation is2.69*, Family income is 8.51, Type of family is 1.56* and source of information is 5.15* hence it is non-significant

4. Discussion

Zabin and Hayward (1993) conducted the study in that they state that there is an estimated 6.29 million South African living with HIV-AIDS. This estimated figure includes 3.3 million women (adolescents and adults). HIV-AIDS infections as well as STD are more prevalent among adolescents (12).

The united nation population funds state of world population 2003 in reproductive outlook 2004 mentioned that the world has an estimate the 6 billion people living with HIV-AIDS. There are about 1.2 billion adolescents (age between 10-19) 1 billion aged 15-24. It is estimated that at least one in six adolescents are being infected by the HIV every min (13).

Findings related to demographic variables:

Age: Out of 60 respondent's majority 93.33% were belonged to 16-18 years, 6.66% were belonged to below 16 years and 00% were belonged to above 18 years.

Gender: Out of 60 respondents majority 65% were females and 35% were males.

Education: In the education most of 51.66% respondents were studying in 12th std. and 48.33% were studying in 11th Std.

Religion: In the religion the most of respondents 80% were belonged to Hindu religion, 6.66% were belonged to Muslim religion, 8.33% were belonged to Christian religion & 5% were belonged to other religion.

Family income: In the family income the most of the respondents family income 33.33% were having above 20,000 Rs, 26.66% were having 5,000-10,000 Rs, 23.33% having 15,000-20,000 Rs & 16.66% were having 10,000-15,000 Rs family income.

Family occupation: In the family occupation 13.33% respondents family occupation is farmer, 41.66% respondent's family occupation is business, 8.33% were drives and 36.66% respondents' family occupation is other occupation.

Type of family: Out of 60 respondents 60% respondents were belonged to nuclear family and 40% were belonged to joint family.

Source of Information: Out of 60 respondents majority 63.33% respondents get the information electronic media, 20% by print media, 11.66% by workshops & just 5% by other sources.

Finding related to the knowledge score:

The pretest knowledge score of respondent is the majority 78.33% were in the moderate level, 21.66% were in the inadequate level.
The mean, SD, Mean % & SD % of pretest knowledge score are 15.73, 4.07, 27.59 & 7.14 respectively.
The posttest knowledge score of respondents is the majority 86.66 were in the adequate level & 11.66 were in moderate level.
The mean, SD, mean % & SD % of post test knowledge are 23.76, 3.42, 39.6 & 5.7 respectively.

Findings related to association:

The association of respondent's knowledge score is calculated by chi-square test & t- test. The score of chi-square is 105.94 & it is significant. t-test value is 19.77 and it is significant.

Conclusion

HIV-AIDS is the major communicable health problem of the many countries. It is transmitted by various routes. HIV-AIDS is the leading cause of death. So for the prevention of this diseases health education and awareness is only the way to control and overcome from the disease.
As it is well known fact that "Prevention is always better than cure" HIV-AIDS is most dreadful disease but it can also be prevented by educating the community people by taking certain precautions. Focusing on primary prevention educating nursing students would be best resource. Educating one student will educate a group of people. Keeping this in mind the investigator planned and constructed a self structured questionnaire which was administered to students and tested for its effectiveness in achieving the desired goal. The structured teaching programme was effective in increasing the knowledge as shown by higher post-test mean knowledge score of experimental group than control group at p < 0.05 level. .
The present study was done to evaluate the effectiveness of structured teaching programme on knowledge regarding HIV-AIDS in selected conditions among the Jr. College students in Aurangabad.

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