Knowledge of HIV/AIDS among Nursing Students

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Abstract: *Aim: To evaluate the effectiveness of structured education on knowledge regarding HIV/AIDS among nursing students. Participants and setting: A pre – experimental one group pretest – posttest design was adopted for this study. The study was conducted in Chandana School of nursing, suryapet, Telugana, India. The investigator selected 60 nursing students who fulfilled the inclusion criteria were selected by using simple random sampling technique. Intervention: Data was collected regarding demographic variable, knowledge and attitude of the nursing students on HIV/AIDS. The investigator assessed the level of knowledge and attitude of the nursing students by using structured questionnaire and modified three point Likert Scale and by using checklist through one to one teaching by lecture, demonstration, video clippings and verbalization. Structured teaching programme was conducted on the same day on group wise each group consists of 30members. Data collection was done in Telugu and English the questionnaire was distributed to each first year nursing students. At the end of the teaching the doubts were cleared. Then 10 minutes was allotted for discussion. Measurement and findings: The analysis finding indicates clearly that 95% of students had adequate knowledge and 88.33% of them had good attitude regarding HIV/AIDS. A well planned structured teaching programme given to the group. The effectiveness of programme showed high level of significant at p<0.001 level. It showed that structured teaching programme was an effective method to improve the knowledge and attitude there by the prevention of HIV/AIDS. Conclusion: The study concluded that nursing student's knowledge and attitude regarding prevention of HIV/AIDS was adequate .Thus structured education helps to enhance the knowledge. There is clear evidence that the majority of participants were very knowledgeable about HIV/AIDS.*

Keywords: Human immunodeficiency virus/Acquired immune deficiency syndrome (HIV/AIDS), infection, nursing students

1. Introduction

Human immunodefiency virus (HIV) is the cause of acquired immune efficiency syndrome.As far as is known in medical history, it had no precedent prior to 1981, when it was discovered in the blood stream collected in 1959 (HIV AIDS, 2010; Wikipedia, 2013). The HIV makes an attachment on the white blood cells. Human immunodeficiency virus commonly referred to as HIV is used for maintaining immunity to disease. On contracting HIV, a person becomes vulnerable to diseases due to the weakening of the body immunity. From the time a person contracts HIV, he/she is infectious for the remaining of his lifespan. AIDS is a disease of the human immune system precipitated by HIV. It interferes with the body's system of resisting diseases, and therefore it is rendered rather feeble or powerless to infection. According to Summerfield (1990), AIDS is a condition that disembowels the body immune system from fighting diseases. As AIDS advances, the more the body succumbs to infection, which is referred to as opportunistic diseases that would not pose a threat to a non-HIV person.

These aspects provide important information to identify populations most at risk for HIV, as well as to determine needs, barriers, and goals to HIV prevention. Addressing misconceptions about the modes of HIV transmission is as important as promoting knowledge of the true means of transmission. Both are critical in assessing changing perceptions that result from preventative efforts. Misinformation about HIV has been strongly associated with HIV-related stigma and discrimination, and with high rates of HIV risk behaviors and Perceived vulnerability is also critical to an individual's precautionary behavior.

By the end of 2009, approximately 4 million people were living with HIV infection on the American continent. Globally, the HIV epidemics in Latin America remain relatively stable. However, Central America reports an increasing number of new infected cases. Nicaragua was the most recent Central American country in which the HIV epidemic was detected and has one of the lowest rates of HIV prevalence in the Latin American region. Since 2004, only 0.2% of the adult population was estimated to be HIV-positive, but a significant increase in the HIV incidence rate has been reported. Since the predominance of its transmission taking place sexually (primarily through heterosexual encounters), HIV mostly affects men and young people. Those between the ages of 15 and 49 may represent 91% of all HIV-positive cases in Nicaragua. However, this figure may be underreported due to inadequacies in case detection, HIV surveillance, and antiretroviral therapy monitoring.

India has a population of one billion, around half of whom are adults in usually active age group and a large member below this age group. In India AIDS was 1st detected in 1986 and since then HIV infection has been reported in all states and union territories. The spread of HIV in India has been diversified, with much of India having a low rate of infection and the epidemic being most extreme in the southern states, 96% of the total number of nationally is reported AIDS cases found in 10 of the 28 states and union territories, worst being Maharashtra (9206) in the west, Tamil Nadu (18,276) and Pudhucherry (157) in the south and Manipur (1238) in the north – east. In Maharashtra and Tamil Nadu the infections are mostly due to heterosexual contact, while infections are mainly found in drug users CTDU and their sexual partners in Manipur.

2. Material and Methods

The study investigated 60 adolescent nursing students. Their age ranged between 17 to 19 years, in the City of suryapet, Telugana. Their understanding of the English language was used in the questionnaire. A twenty-five statements questionnaire on their knowledge of HIV/AIDS was administered for their responses. Questionnaire addressed issues related to the transmission, infection and prevention of HIV/AIDS which has reached epidemic proportion among nursing students in suryapet. Permission to administer the questionnaire was sought from the Senior Management of the nursing school. Following their consent, the questionnaire was administered after briefing participants that the questionnaire was to find out how much they knew about HIV/AIDS, and their participation was subject to their agreeing to participate. Frequency and percentage distribution was used to analyze the demographic data of nursing students. Mean and standard deviation was used to complete the knowledge and attitude of HIV/AIDS of nursing students. Paired' test was used to analyze the effectiveness between the pre and posttest. Chi-square test was used to associate the demographic variables with knowledge and attitude of HIV/AIDS among nursing students. Correlation co-efficient was to analyze the correlation between knowledge and attitude of HIV/AIDS among nursing students.

2.1. Description of Research Tool

It consists of three sections.

Section A

It consists of demographic variables which include age of the individual, religion, education, type of family, previous exposure to knowledge.

Section B

Multiple choice questions to assess the knowledge of HIV/AIDS

Part I: Questions related to HIV/AIDS

Section C

Modified three point Likert scale to assess the attitude regarding HIV/AIDS. This section includes 10 items with choices as agree, uncertain and disagree.

3. Results

Table 1: Frequency and percentage distribution of level of knowledge after structure teaching programme on HIV/AIDS of nursing student

N=60

Domain	Inadequate <50%		Moderately adequate 50 – 75%		Adequate >75%	
	No.	%	No.	%	No.	%
Knowledge	0	0	3	5	57	95

Table 1 depicts the frequency and percentage distribution of level of knowledge after structured teaching programme of nursing students on HIV/AIDS. It clearly indicates that majority of them, 57(95%) had adequate knowledge on HIV/AIDS, three (5%) had moderately adequate knowledge and none of them had inadequate knowledge.

Table 2: Frequency and percentage distribution of level of attitude after structured teaching programme on HIV/AIDS of nursing students

N=60

Domain	Negative attitude <50%		Moderately Favorable attitude 50 – 75%		Positive attitude >75%	
	No.	%	No.	%	No.	%
Attitude	0	0	7	11.67	53	88.33

Table 2 shows the frequency and percentage distribution of level of attitude after structured teaching programme of nursing students on HIV/AIDS. Data illustrates that majority of them 53(88.33%) had positive attitude on HIV/AIDS, 7(11.67%) had moderately favorable attitude and none of them had negative attitude.

Table 3: Mean and standard deviation of knowledge and attitude on HIV/AIDS of nursing students

N=60

Domain	Pretest		Posttest		't' value
	Mean	S.D	Mean	S.D	
Knowledge	7.68	1.141	20.21	1.03	63.14*** (S)
Attitude	10.48	1.19	15.38	1.349	21.09*** (S)

p<0.01,*p<0.001,S– Significant

Table 3 denotes the mean and standard deviation of knowledge and attitude of nursing students on HIV/AIDS. Observing the pretest level of mean knowledge score was 7.68 with S.D 1.141 and posttest level of mean knowledge score was 20.21 with S.D 1.03 and the 't' value of 63.14 showed high level of significance. With respect to the pretest mean attitude score was 10.48 with S.D 1.19 and posttest mean attitude score was 15.38 with S.D 1.349 and the 't' value of 21.09 showed high level of significance.
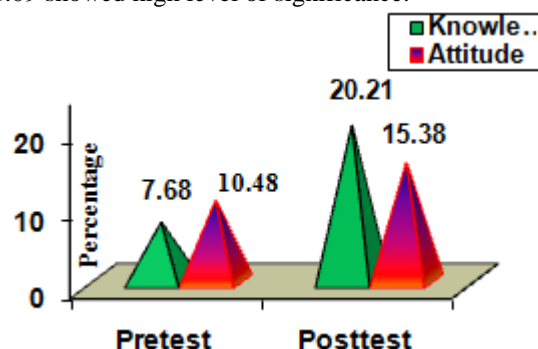

Figure 1: Mean score of pre and post test level of knowledge and attitude of nursing students

Table 4: Correlation of pre and posttest level of knowledge and attitude on HIV/AIDS of nursing students

N=60

Domain	Knowledge		Attitude		'r' value
	Mean	S.D	Mean	S.D	
Pretest	7.68	1.141	8.16	1.16	0.99*
Posttest	20.21	1.03	15.42	1.344	0.97***

*p<0.05, ***p<0.001

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Table 4 shows the correlation of pre and posttest level of knowledge and attitude on HIV/AIDS of nursing students. mean score was 7.68 with S.D 11.141, the attitude mean 8.16 with S.D 1.16 and overall 'r' value was 0.31 which significant The analysis reveals that the pretest level of knowledge at p<0.05 level. The posttest level of knowledge mean score was 20.21 with S.D 1.03the attitude mean 15.42 with S.D 1.344 clearly indicates a positive correlation between knowledge and attitude (r = 0.97) which is significant at p<0.001 level.

4. Discussion

Table 1 depicts the frequency and percentage distribution of level of knowledge after structured teaching programme of nursing students on HIV/AIDS. It clearly indicates that majority of them, 57(95%) had adequate knowledge on HIV/AIDS, three (5%) had moderately adequate knowledge and none of them had inadequate knowledge.

Table 2 shows the frequency and percentage distribution of level of attitude after structured teaching programme of nursing students on HIV/AIDS. Data illustrates that majority of them 53(88.33%) had positive attitude on HIV/AIDS, 7(11.67%) had moderately favorable attitude and none of them had negative attitude.

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5. Conclusion

The study concluded that nursing student's knowledge and attitude regarding prevention of HIV/AIDS was adequate .Thus structured education helps to enhance the knowledge. There is clear evidence that the majority of participants were very knowledgeable about HIV/AIDS.

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