



Effectiveness of Structured Teaching on the Knowledge of HIV/AIDS among Adolescents in Selected Schools, Ludhiana, Punjab

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Abstract:

Background: People rarely receive the accurate and appropriate information they need about HIV/AIDS. School-aged children should be provided with age-appropriate information on HIV/AIDS and life skills before they become sexually active. This research was performed to assess the effectiveness of structured teaching on the knowledge of HIV/AIDS among Adolescents.

Methods: Sample size was 100 & random sampling (Lottery without Replacement) was used for data collection in selected schools, Ludhiana, Punjab. A self instructional questionnaire was prepared to assess the knowledge of HIV/AIDS among adolescents.

Results: Result shows that Mean post test knowledge score of adolescent regarding HIV/AIDS was the higher 35.18 compare to mean pre test knowledge score 15.55 of adolescents and these difference was statistically significant at $p < 0.001$ level. Of 70% adolescents had below average knowledge score and 30 % adolescents had average knowledge score regarding HIV/AIDS, and in posttest all adolescents had good knowledge score regarding HIV/AIDS.

Conclusion: Study findings show that structured teaching is significantly effective in raising the knowledge level among adolescents regarding HIV/AIDS. The researchers feel strong need to evaluate knowledge of HIV/AIDS among adolescents and to take needful action to create an awareness to reduce the burden of HIV/AIDS in India.

Keyword: HIV/AIDS, Adolescents, Structured Teaching.

Introduction

It is bad enough that people are dying of AIDS, but no one should die of ignorance. ¹ The first case report of HIV in India was occurred in 1986 from Chennai. Since then there was an increase in the number of HIV infections over the years. ² It said a total 17 lakh people had died across the world due to AIDS related illness. In India, the figure for such deaths reaches at 1.7 lakh. ³

India has emerged as a major player in the global HIV epidemic, and given the importance of adolescents in the Indian epidemic, the lack of information on knowledge, perceptions, and behaviors regarding HIV risk and preventive behaviors among Indian adolescents is alarming. ⁴ Adolescents are defined as individuals in the 10–19 year age group. This phase is characterized by acceleration of physical growth and, psychological

and behavioral changes, thus bringing about transformation from childhood to adulthood. Physical growth and development are accompanied by sexual maturation, often leading to intimate relationships. In addition, the adolescent experiences changes in social expectations and perceptions.⁵

Objectives

1. To assess the pretest knowledge among adolescents regarding HIV/AIDS
2. To assess posttest knowledge among adolescents regarding HIV/AIDS
3. To compare pre and posttest knowledge among adolescents regarding HIV/AIDS
4. To assess the relationship of pre and posttest knowledge score among adolescents regarding HIV/AIDS with selected variables i.e. age, gender, family income, education, religion, type of family and mass media exposure.

Research Approach: Quantitative research approach was adopted for present study.

Research Design: Quasi-experimental one group pre test post test design was used to observe the effectiveness of planned teaching among adolescents regarding HIV/AIDS.

O_1 x O_2

Null Hypothesis: The post test knowledge score of adolescents regarding HIV/AIDS will not be statistically significant as compared to pretest knowledge score as measured by self instruction questionnaire at $p < 0.05$ level.

Delimitations

- Study was limited to adolescent students (14-19 years)
- Study was limited to two selected schools, Ludhiana, Punjab.

Variables:

Demographic variables: age, gender, family income, education, religion, type of family and mass media exposure.

In depended variable: Effectiveness of Structured Teaching

The Dependent variable: Knowledge of adolescents regarding HIV/AIDS

Setting: The present study was conducted in Ewing Higher Secondary School, Ludhiana, Punjab and Jain Public School Ludhiana, Punjab.
Population: Population of study consisted of adolescent students.

Sample and Sampling Technique: Sample size was 100 & Random Sampling (Lottery without Replacement) was used for data collection.

Criteria for Sample Collection: Adolescents willing to participate in the study after obtaining consent who & were present at the time of data collection were selected.

Tools: A self instructional questionnaire was prepared to assess the knowledge of adolescent regarding HIV/AIDS. The tool consists of the three parts i.e. Part-I: Demographic data, Part-II: Questionnaire for assessment of knowledge of HIV / AIDS and Part-III: Structured teaching on HIV/AIDS.

Content Validity: The preliminary draftings of tools were done after extensive review of literature & expert's opinion on the relevance of the items was taken.

Ethical Consideration: Formal permission was obtained from Principal of both the schools. Consent was taken from the adolescent. Ethical Consideration was sought from ethical committee.
Pilot Study: Pilot study was conducted on 12 adolescent.

Reliability of the tool: Reliability of the tool was computed by applying split-half method & was calculated by Carl Pearson's coefficient of correlation & Spearman's Brown prophecy formula. The reliability of the structured multiple choice questionnaire was 0.8.

Results

Highest (52%) of adolescents were in age group of 14 – 15 years , 61% adolescents were male , 32% of adolescents were falling in Rs. 4001 to 8000 income per month , 50% adolescents belong to 9th standard and 10th standard each respectively, 53% adolescents belongs to Hindu religion , 60%

adolescents belongs to nuclear family , 42% adolescents were exposed to radio and T.V..

Findings related to level of knowledge regarding HIV/AIDS

According to the pre test level of knowledge related to HIV/AIDS maximum adolescents (70%) had below average knowledge score (0-35%), 30 % adolescents had average knowledge score (36 - 68%), whereas in post test level of knowledge all adolescents (100%) had good knowledge (69-100%) their mean percent was (97.7%).

Findings related to pre test and post test knowledge regarding HIV/AIDS

Mean posttest knowledge score of adolescent regarding HIV/Aids was the higher 35.18 than

mean pretest knowledge score 15.55 of adolescents and these difference was statistically significant at $p < 0.001$ level. Hence, the null hypothesis was rejected.

Findings related to variables

There was no statistically significant effect of age, gender, family income, education, religion, type of family and mass media exposure but there was highly impact of structured teaching on knowledge score regarding HIV/AIDS in all variables.

Table: - 01 Mean, Mean Percentage Distribution & Rank Order of Pretest and Posttest Knowledge Score of HIV/AIDS among Adolescents According to Areas of HIV/AIDS

N=100

| Areas of HIV/AIDS | Mean Score | Knowledge Score | | | | | |
|---------------------|------------|-----------------|-------|------|----------|-------|------|
| | | Pretest | | | Posttest | | |
| | | Mean | Mean% | Rank | Mean | Mean% | Rank |
| Introduction | 12 | 5.37 | 44.75 | 3 | 11.76 | 98.0 | 2 |
| Misconceptions | 8 | 1.82 | 22.5 | 6 | 7.83 | 97.88 | 3 |
| Spread/Transmission | 7 | 4.37 | 62.42 | 1 | 6.88 | 98.28 | 1 |
| Sign & Symptoms | 4 | 1.74 | 43.5 | 4 | 3.85 | 96.25 | 5 |
| Treatment | 2 | 0.85 | 42.5 | 5 | 1.92 | 96.0 | 6 |
| Prevention | 3 | 1.40 | 46.7 | 2 | 2.93 | 97.67 | 4 |

Maximum Score = 36 Minimum Score=0

Table: - 02 Comparison of Mean Pretest & Posttest Knowledge Score among Adolescents Regarding HIV/AIDS According to Religion

N=100

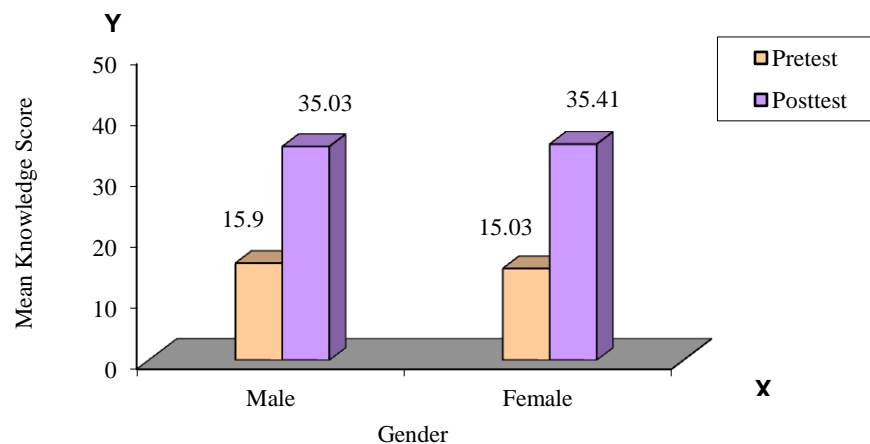
| Religion | n | Knowledge Score | | | | | |
|-----------|-----|-----------------|--------------------|----------|------|--------------------|----------|
| | | Pretest | | Posttest | | df | t |
| | | Mean | SD | Mean | SD | | |
| Hindu | 53 | a 15.40 | 3.58 | a' 35.19 | 0.88 | | |
| Sikh | 18 | b 14.94 | 2.67 | b' 35.06 | 0.99 | 17 | 31.37*** |
| Muslim | 0 | c - | - | c' - | - | - | - |
| Christian | 29 | d 16.21 | 2.92 | d' 35.24 | 0.87 | 28 | 30.86*** |
| | | df | t | df | t | | |
| | a+b | 69 | 0.49 ^{NS} | a'+b' | 69 | 0.54 ^{NS} | |
| | a+d | 80 | 1.04 ^{NS} | a'+d' | 80 | 0.26 ^{NS} | |
| | b+d | 45 | 1.49 ^{NS} | b'+d' | 45 | 0.67 ^{NS} | |

Maximum score = 36
Minimum score=0

NS= Non significant
*** = Significant at $p < 0.001$ level

Graph: 01

Comparison of Mean Pretest & Posttest Knowledge Score among Adolescents Regarding HIV / AIDS according to Gender.



Discussion

The first objective of the study was to assess pretest knowledge among adolescents regarding HIV/AIDS. The finding revealed that maximum 70% adolescents had below average knowledge score $\leq 35\%$ and minimum 30% adolescents had average knowledge score 36-68% regarding HIV/AIDS. This finding is consistent with study results revealed that pre-test majority (83.33%) students were having inadequate score level.⁶ Majority of respondents had a relatively poor knowledge about HIV/AIDS.⁷ Another study found that majority (80.58%) of adolescents participating in study had moderately adequate pretest knowledge regarding HIV/AIDS.⁸

Second objective of the study was to assess posttest knowledge among adolescents regarding HIV/AIDS. The finding revealed that in posttest all adolescents 100% had good knowledge score $>69\%$ regarding HIV/AIDS.

This finding is consistent with study results revealed that post-test knowledge score majority (83.33%) students was having moderate score level.⁶ Another study revealed that Post-test knowledge scores 97.50% of HIV infected women had good knowledge.⁹ Other researcher found that in posttest 95.88% adolescents showed adequate knowledge (Good) and 4.11% had moderately adequate knowledge regarding HIV/AIDS.⁸

Third objective of study was to compare pretest and posttest knowledge among adolescents regarding HIV/AIDS. The finding revealed that mean posttest knowledge score among adolescent regarding HIV/AIDS was higher 35.18 as compared to mean pretest knowledge score 15.55 among adolescents. This difference was statistically significant at $p < 0.001$ level and structured teaching was effective in improving the knowledge among adolescents regarding HIV/AIDS. Thus, null hypothesis was rejected.

The above finding was consistent with the study result that Post test mean knowledge score (84.7%) was higher than pre test score (65%) and computed "t" value was 21.85 which was found significant at level of $P \leq 0.001$ which indicate effectiveness of STP.³ Another study revealed that paired t- test results was significant gain in knowledge ($p < 0.01$) which indicate that that the structured teaching program was very effective.⁹ Study findings revealed that after intervention respondents had significantly higher ($p < 0.001$) mean knowledge about HIV/AIDS.¹⁰ Another study result shows that effect of some health education techniques in disseminating knowledge of HIV/AIDS among adolescents. Pre-intervention and post intervention mean knowledge scores in intervention and control groups were 25.88 and 26.52 respectively. Immediately after training the

mean score in the intervention group increased significantly to 32.53 and after 3 months there was a marginal decline of 1.3 percent only.¹¹ Study findings revealed those pupils who were reassessed after receiving a talk and handout showed significant improvement in their knowledge and a change in attitude regarding HIV/AIDS.¹²

According to areas of HIV/AIDS findings was consistent with result that knowledge scores 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."⁶ Other study result stated that the majority of students had accurate knowledge about HIV/AIDS modes of transmission, with 67–96% correctly answering each of questions. However, there were many misconceptions about how HIV is transmitted, e.g. by shaking hands, using public toilets, using public swimming pools, etc. were still noted.¹³ other study results reported that there were many misconceptions about transmission and prevention among pupils knowledge of HIV/AIDS.^{12, 14}

Implications of the Study

Nursing Education: Prevention is better than cure. Nursing education curriculum should cover the topics on HIV/AIDS in each year of different courses in the form of case study, organizing seminar, conducting workshop, symposium and role play that will create and enhance the awareness and knowledge of student as well as individual who attends these activities.

Nursing Practice: Nurses/health workers must use universal precaution while dealing with patients. All blood for transfusions should be screened for HIV careful dealing with infected person. Health workers (Staff Nurses) can provide information to pregnant women and assist the postnatal mothers' in identifying a feeding method that can maximize the infant's chance of growing up healthy and free of HIV. Counseling and testing can also help those not infected to remain uninfected through education about safer sex. Staff nurse play and even improve this counselor role in nursing practices. Patients admitted with STIs should be

given this knowledge including informing to partner about safer sex by staff nurses.

Nursing Administration: Nurses must have adequate & up to date knowledge regarding HIV/AIDS in order to rendering nursing care to the HIV/AIDS patients. The nurse administrator has major role to maintain the nurses' knowledge level high by organizing workshop, provide in-service education and promote participation in conferences and specialized training i.e. counseling. Nurse administrator can also select the appropriate staff nurses for further training in specialized area that will enable staff nurses to look after HIV/AIDS patients.

Community Health Nursing: Community Health Nurses or a qualified health worker should identify the vulnerable target population (mother, institute /street children, refugee, orphans and drivers) and guide or refer as required. General public should be made aware about it by conducting role play, imparting health education, knowledge about safer sex of ABC i.e. *Abstinence, Be Faithful* and use *Condom*. HIV/AIDS infected families and their community member needs to be educated to minimize the stigma and misconceptions.

Nursing Research: Other than government many celebrities are giving advertisements on HIV/AIDS and condom use. Much of information being provided by magazines, TV, newspaper, NGO's and health professionals to create an awareness among general public. But seeing the findings of this study and other studies we can say that outcome is not favorable. Day to day AIDS cases are increasing therefore, there is much more need to explore the area related to HIV/AIDS. Indian nurses/ health workers should conduct more research on HIV/AIDS.

General Education: State/ district wise teacher(s) should undergo a training programme regarding HIV/AIDS/ STIs which will enable them to facilitate right information skillfully to the students and reduce misconceptions of students as well as themselves. Age related sex education needs to be imparting to pupils.

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