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# ASSESSING HEALTH EDUCATION TECHNIQUES IN ENHANCING THE KNOWLEDGE OF HIV/AIDS AMONG ADOLESCENTS


## Abstract

### Introduction

Adolescent refers to individuals between the ages of 10-19 years. Adolescent is a period of physical, psychological and social maturing from childhood to adulthood.In Nepal, Adolescent comprises more than 22% of population. Among various methods of disease prevention health education finds a very significant role. Different types of health education methods create awareness in the community as well as organization. Educations are important as a 'social vaccine', and it can serve as a powerful preventive tool.

**Objectives:** To assess the better health education methods in enhancing the knowledge of HIV/AIDS among adolescents

### Methods

The study was conducted on three secondary school of in Hansapur Village Development Committees, Arghakhanchi district. The sampling design used for the study was stratified random sampling. A sample size of 300 adolescent students was taken. This sample size was found to be statistically adequate. Mean age of the study subjects was 14.43 years. Intervention and control groups were comparable in their socio-demographic profiles. The content of the health education was kept similar for the five intervention groups and was delivered by one person only. The data was analyzed using the Statistical Package for Social Sciences (SPSS) Version 16. The data has been analyzed using mean and percentages, and paired t test was used to test the improvement in knowledge.

### Results

Mean pre-intervention knowledge scores were 57.36 ±17.44 for pre intervention groups. After health education by the five methods in the five subgroups, the pooled mean knowledge score was enhanced to 81.80 ±16.47. It was highly significant ($p<0.001$).The overall increase in Post-intervention mean score in the intervention group (From Pre- intervention to Post-intervention) was 20.32 percent. The corresponding pre-intervention mean scores were 10.98±5.04, 12.06+6.01, 12.35±5.68, 10.98±4.99, and 10.98±4.99 respectively. Immediately after the educational activities the mean knowledge scores (Post-intervention score) enhanced to 13.13±4.96, 14.93±5.96, 16.16±6.25, 19.36±5.50, 18.20±7.16 in the book, lecture, poster pamphlets, video and participatory lecture groups respectively. This immediate increase in knowledge scores from pre to post-intervention. It was highly significant for all the five intervention subgroups.

### Conclusion

From the above discussion it can be concluded that education played an important role in increasing knowledge of the respondents about HIV/AIDS. In view of the above results and observation, it is concluded that all the five educational methods were effective in enhancing the

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knowledge of the students. But, Video and the participatory lecture are the most effective health education techniques for effective delivery of HIV/AIDS. It is suggested that programme implementers might chose the suitable methods required for their individual programmes. However, it is not ever suggested that these are the only methods available.
**Key words:** Adolescents, effectiveness, health education program, knowledge

## 1 Introduction

Generally, the term "adolescent" refers to individuals between the ages of 10-19 years. Adolescent is a period of physical, psychological and social maturing from childhood to adulthood. Because of the physical, social and psychological transition adolescents face many different health risks and on the other hand. Such curiosity and interest in learning offers great opportunities for improving adolescent health and development.[1]

In Nepal, Adolescent comprises more than 22% of population. The Median age at marriage is 16.8 years for girls and three years later in men. Median age at first sexual intercourse for women is nearly identical to their median age at first marriage however men tend to initiate sex about one year before marriage. In case of HIV, 13% of all HIV cases are adolescents aged 14-19 years and 70% of them are females. There were 20% of estimated 25,000 CSWs are under the age of 16 years. In case of drug use young people 16-19 years constituted 22.5% of the total population.In Nepal, the topography, environmental degradation, poverty and economic migration are all linked and they combine with other factors to increase vulnerability to HIV. For reduce vulnerability educational methods were effective in enhancing the knowledge of the students.[2]

Three educational methods namely lecture, participatory; pamphlets were effective in enhancing the knowledge of the students. [3]Adolescents have excellent resources for delivering effective education: skilled teachers; an interactive educational process that occurs over time; a variety of learning opportunities; materials and methods; and the ability to involve parents in their children's learning.[4]Among various methods of disease prevention health education finds a very significant role. Different types of health education methods create awareness in the community as well as organization, Educations is important as a 'social vaccine', and it can serve as a powerful preventive tool.[5]

Impact on Education the 2005 Human Development Report identified AIDS as the factor inflicting the single greatest reversal in human development history. Education is one of the pillars of development and providing universal access to primary education by 2015 is one of the Millenium Development Goals. HIV infection as a good basic education ranks among the most effective and cost-effective means of preventing HIV.[6]The assessing health education techniques in health education research are seldom seen since the concept is relatively new to the health sector. The National Health Policy of Nepal intends to target school children and adolescents for promoting healthy behaviors among the general population (MoHP, 1991). Hence, the present study expresses the various processes of these health education interventions and to understand the education for better methods of Health education techniques.

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**Objective of the study**

To assess the better health education methods in enhancing the knowledge of HIV/AIDS among adolescents

Material and Methods

The study was conducted on three secondary school of in Hansapur Village Development Committees, Arghakhanchi district. The sampling design used for the study was stratified random sampling. Students were stratified on the basis of the grade (8, 9, 10, 11, and 12). 20 adolescent students are included in one technique for the pre intervention, intervention and post intervention session. Likewise the same (20*3=60) 60 students from three schools are included for the one technique of session i.e. pre intervention, intervention and post intervention session. 60 adolescent students for the five health education techniques in the three schools are (60*5=300) so, a sample size of 300 adolescent students was taken.

All the selected students were assessed for their baseline knowledge (pre- intervention knowledge) about HIV/AIDS. For this, thirty questions related to aetiology, mode of transmission, signs and symptoms and preventive measures of HIV/AIDS. Information was collected on a pre-designed, semi-structured and pre-tested self-administered questionnaire. five methods chosen for educating the students were Book Prepared Materials, Chalk & Duster (Lecture), Poster and Pamphlets, video, participatory lecture. Post-intervention was assessed in all the 5 groups immediately.

This sample size was found to be statistically adequate. Mean age of the study subjects was 14.43 years. Intervention and control groups were comparable in their socio-demographic profiles. The content of the health education was kept similar for the five intervention groups and was delivered by one person only. The data was analyzed using the Statistical Package for Social Sciences (SPSS) Version 16 (SPSS for Windows 16.0, SPSS Inc., Chicago, IL) and Microsoft office package 2010. The data has been analyzed using mean andpercentages, and paired t test was used to test the improvement in knowledge.

RESEARCH HYPOTHESES

1. There will be no significant difference in the knowledge of adolescent students about HIV/AIDS and different techniques of health education methods.
2. There will be no significant difference in the knowledge of adolescent students about HIV/AIDS and intervention of session about HIV/AIDS.

Results

Table I: Socio-Demographic characteristics of respondents

| Socio-Demographic characteristics | | Frequency | Percentage |
|---|---|---|---|
| Sex | Male | 183 | 61.0 |
| | Female | 117 | 39.0 |
| | Total | 300 | 100.0 |
| Marital status | Married | 23 | 7.7 |

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| | | | |
|---|---|---|---|
| | Unmarried | 277 | 92.3 |
| | Total | 300 | 100.0 |
| Ethnicity | Brahmins | 60 | 20.0 |
| | Chhetri | 107 | 35.7 |
| | janajati | 70 | 23.3 |
| | Dalit | 63 | 21.0 |
| | Total | 300 | 100.0 |
| Religion | Hindu | 297 | 99.0 |
| | Christian | 3 | 1.0 |
| | Total | 300 | 100.0 |

It is observed from the present study that 61 % of age of male and 39 % of female are taken for this survey. The study reveals that majority of respondents 92.3 % were unmarried and 7.7 were married. Similarly, it is found that 35.7 % of the respondents were chhetri, 23.3 % were janajati, 20 % were dalit and 20 % are Brahmins.The study reveals that almost all of the respondents 99% were Hindu and 1% was Christians.

Table II: Mean Knowledge Scores of Students in pre intervention and post intervention Groups

| Intervention | N(300) | Mean + Std. Deviation | % increase in knowledge score | t | P-value |
|---|---|---|---|---|---|
| Pre intervention | 300 | 57.36+17.44 | 100.8 | 25.02 | .000 |
| Post intervention | 300 | 81.80+16.47 | 121.12 | 37.99 | .000 |

Mean pre-intervention knowledge scores were 57.36 ±17.44 for pre intervention groups. After health education by the five methods in the five subgroups, the pooled mean knowledge score was enhanced to 81.80 ±16.47. It was highly significant ($p<0.001$).The overall increase in Post-intervention mean score in the intervention group (From Pre- intervention to Post-intervention) was 20.32 percent.

Table III: Comparison of mean knowledge scores in five interventions group

| | Pre intervention | | Post intervention | | |
|---|---|---|---|---|---|
| Intervention group | N | Mean + Std. Deviation | N | Mean + Std. Deviation | % increase in Knowledge |
| Book | 60 | 10.98+5.04 | 60 | 13.13+4.96 | 21.5 |
| Lecture | 60 | 12.06+6.01 | 60 | 14.93+5.96 | 28.7 |
| Poster/ pamphlets | 60 | 12.35+5.68 | 60 | 16.16+6.25 | 38.1 |

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| | | | | | |
|---|---|---|---|---|---|
| Video | 60 | 10.98+4.99 | 60 | 19.36+5.50 | 84.16 |
| Participatory | 60 | 10.98+4.99 | 60 | 18.20+7.16 | 72.4 |

The total number of students (both the intervention) in the book, lecture, poster pamphlets, video and participatory lecture groups were 60, 60, 60, 60 and 60 respectively. The corresponding pre-intervention mean scores were 10.98±5.04, 12.06+6.01, 12.35±5.68, 10.98±4.99, and 10.98±4.99 respectively. Immediately after the educational activities the mean knowledge scores (Post-intervention score) enhanced to 13.13±4.96, 14.93±5.96, 16.16±6.25, 19.36±5.50, 18.20±7.16 in the book, lecture, poster pamphlets, video and participatory lecture groups respectively. This immediate increase in knowledge scores from pre to post-intervention. It was highly significant for all the five intervention subgroups.

Table IV: Test of significance within the same Intervention subgroups

| | Pre- interventionVs Post- intervention | | |
|---|---|---|---|
| Groups | Mean+ Std. Deviation | T | P value |
| Book | -2.150+5.89 | -2.824 | .006 |
| Lecture | -2.86+6.62 | -3.350 | 001 |
| Poster/ pamphlets | -3.81+6.79 | -4.353 | <.001 |
| Video | -8.38+7.56 | -8.582 | <.001 |
| Participatory lecture | -7.21+8.25 | -6.770 | <.001 |

'Sustainable increase' in knowledge was calculated as the percentage of increased knowledge from pre-intervention to post- intervention. The differences in the pre-intervention mean knowledge scores between the five groups were statistically significant. It was calculated to be 21.5, 28.7, 38.1, 84.16, and 72.4 percent respectively for lecture, poster pamphlets, video and participatory lecture.

Discussion

The findings of the study showed that education intervention played an important role in increasing knowledge about HIV/AIDS which can be supported by the study "Evaluation of a School Based HIV/AIDS Educational Intervention in Ukraine".[7]

In the present study the 13% increase in knowledge of the post intervention after intervention of different health education technique. Therefore, we can say that educational methods have been able to enhance the knowledge after intervention by 13% more (37.99% minus 25.02). We observe that there is significant difference between pre-intervention and post-intervention knowledge scores.

HIV/AIDS, which might be the reasons behind relatively limited knowledge of the respondents about HIV/AIDS before education intervention and after intervention there was a significant increase in respondents' knowledge. The study findings indicated that there was significant increase in the knowledge in all the aspects of HIV/AIDS after education intervention. All of the respondents indicated that there is a need of awareness program about HIV/AIDS. This finding is

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supported by participatory method of teaching there is active participation of the participants and they learn more and are able to retain the gained knowledge.[3]

In this present study participatory lecture and video method is more effective as compared to read, lecture and poster/ pamphlet methods because in the participatory method of teaching there is active participation of the participants and they learn more and are able to retain the gained knowledge. And in video methods more sense organ are concentrate to seeing, listening. Post-intervention score for book, lecture and poster/pamphlet group was significantly less than the other two groups. This could be because of the fact that despite our motivation it is quite likely that many of the students either did not read or partially read. And in listen students are used to the daily lecture.

The increased gain in knowledge was sustained to a very high degree. It was approximately similar for book, lecture, poster/pamphlets (21.5, 28.7 and 38.1 percent's respectively) and much higher for video and participatory lecture group (84.16 and 72.4 percent). The reason for this high sustainability in the pamphlet group could be because of the reason that once the students were sensitized to a particular issue they were more sensitive to related information through various mass media and other IEC activities going on in the area.

## CONCLUSION

From the above discussion it can be concluded that education played an important role in increasing knowledge of the respondents about HIV/AIDS. In view of the above results and observation, it is concluded that all the five educational methods were effective in enhancing the knowledge of the students. But, Video and the participatory lecture are the most effective health education techniques for effective delivery of HIV/AIDS. It is suggested that programme implementers might chose the suitable methods required for their individual programmes. However, it is not ever suggested that these are the only methods available.

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