Impact of Information, Education and Communication (IEC) Regarding Awareness of Human Immuno-deficiency Virus (HIV)/ Acquired Immuno-deficiency Syndrome (AIDS) in Secondary School Students of Ahmedabad City, Gujarat

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Abstract :

Introduction: There is no cure for HIV/AIDS and no effective vaccine available till date. So, only prevention of transmission of HIV would be effective in significantly slowing the spread of AIDS. With this view the following study was undertaken to assess the level of awareness regarding HIV/AIDS among secondary school students and to evaluate impact of IEC among them. **Method:**An interventional study was conducted in randomly selected 3 schools with all the class 9th and 10th students. First, students were pre-tested for their awareness by semi-structured questionnaire then IEC was given which include poster and intra group open discussion. Post test evaluation was conducted after 24 hours to evaluate impact of IEC. Analysis was done in Ms Excel 2007. **Results:** Out of 298 students, 87.58% had heard about HIV/AIDS. Only 34% knew about full form of HIV/AIDS which increased to 71% after IEC intervention. There were many myths for HIV/AIDS transmission i.e. it is transmitted by Mosquito bite 58%, Sneezing and coughing of HIV positive person 58.72% which decreased to 13%, 15% respectively. Only 34% were aware HIV/AIDS is not curable which increased to 74.83 %. These all differences were found statistically significant. (Z test of proportion was applied) **Conclusion:** Educational programmes are recommended to facilitate students with correct scientific knowledge regarding HIV/AIDS.

Keywords : Awareness, IEC, HIV/AIDS

Introduction :

The Acquired Immune Deficiency Syndrome (AIDS) is a fatal illness caused by retrovirus known as the Human Immunodeficiency Virus (HIV) which breaks down the body's immune system, leaving the victim vulnerable to a host of life – threatening opportunistic infections, neurological disorders, or unusual malignancies. Among the special features of HIV infection are that once infected, it is probable that a person will be infected for life. Strictly speaking, the term AIDS refers only to the last stage of the HIV infection. AIDS can be called our modern pandemic, affecting both industrialized and developing countries. [1] An estimated 36.7 million people were living with HIV worldwide in 2016.[2]

Young people, especially young women and young key populations, continue to be disproportionately affected by HIV—In 2014, there were 3.9 million young people aged between 15 and 24 years living with HIV and 620 000 young people became newly infected with the virus. AIDS is now the second leading cause of death among young people world-wide.[3] In India, people in the age group of 15-29 years account for 31 percent of AIDS burden.[4]

Adolescents are at high risk of contracting HIV due to lack sufficient information and understanding of HIV/AIDS.[5] So, UNAIDS recommends the adoption of a 'life-cycle approach' to HIV prevention.[6]

Programme managers and policy makers have often recommended that schools can act at the centre point for disseminating information and education on HIV/AIDS. Hence school education has been described as a 'social vaccine' and it can serve as a powerful preventive tool.[7] With the above views in mind the following study was undertaken to find out the existing knowledge and change in knowledge about HIV/AIDS after education intervention and to find out the association.

Method:

An interventional was conducted during March to May 2018.The study was carried out at three randomly selected schools which were located in different areas of Ahmedabad. All students from classes 9th and 10th present on the day of the study were included. A total, 298 students were present. First, baseline data about HIV/AIDS awareness was collected by using semi-structured questionnaire. The questionnaire included questions for assessing knowledge (Full form of HIV/AIDS, Modes of transmission of HIV/AIDS, Prevention from HIV/AIDS). It was followed by educational session which included posters and intra group open discussion for duration of 1 hour. Post test was conducted after 24 hours. The Performa for pretest and posttest was same.

The results were expressed in percentages represented by tables and Analysis was done by Ms Excel 2007.

Ethical considerations were carefully and systemically adhered to throughout the study. Permission to carry out the research was obtained from school authorities. School students were enrolled after obtaining informed consent and participation was purely voluntary and they were also assured that the study will not have any detrimental effect on the participant. The students were assured that any information, thus obtained will be treated with utmost confidence.

Results:

Out of 298 participants, 87.58 % had heard about HIV/AIDS. Only 33.55% of students had knowledge regarding full form of HIV/AIDS but after giving health education, this was increased up to 71.14% (Z -value= 9.18, $p<0.05$)

Before intervention, 76.17 % of students were aware that HIV/AIDS can be transmitted through unsafe sexual relationships which increased to 84.22% after intervention. Awareness for other modes of transmission were 75.16% for contaminated blood transfusion, 81.87% for sharing needle and syringes, 77.51% for HIV/AIDS positive mother to baby. These observations increased up to 85.23%, 94.29%, 91.94 % respectively. These differences were found statistically significant (Z test of proportion was applied, $p<0.05$) (**Table 1**)

There were many misconceptions about transmission of HIV/AIDS which are shown in Table 2. 58.38% of students said that it is transmitted by mosquito bite, 58.72% said that it is transmitted due to sneezing and coughing of HIV/AIDS positive person, 33.89% said that it is transmitted by touching to HIV/AIDS positive person. After intervention, these misconceptions reduced to 13.42%, 15.10% and 10.73% respectively which were statically significant. (Z test of proportion was applied, $p<0.05$)

Table 1 : Awareness for various modes of transmission of HIV/AIDS

Modes of transmission	Awareness			
	Pre-test	Post-test	Z-value	p-value
Unsafe sexual relationship	227 (76.17%)	251 (84.22%)	2.4671	< 0.05
Contaminated blood transfusion	224 (75.16%)	254 (85.23%)	3.0838	< 0.05
Sharing needle and syringes	244 (81.87%)	281 (94.29%)	4.6786	<0.05
From HIV/AIDS positive mother to baby	231 (77.51%)	274 (91.94%)	4.8969	<0.05

Table 2 : Prevalence of misconceptions about HIV/AIDS transmission (N=298)

Misconceptions	Prevalence			
	Pre-test	Post-test	Z-value	p-value
Transmitted by mosquito bite	174 (58.38%)	40 (13.42%)	11.44	<0.05
Transmitted by sneezing and coughing of HIV/AIDS positive person	175 (58.72%)	45 (15.10%)	11.03	<0.05
Transmitted by touching to HIV/AIDS positive person	101 (33.89%)	32 (10.73%)	6.78	<0.05

Table 3 : Awareness regarding prevention for HIV/AIDS (N=298)

Preventive modes	Awareness			
	Pre-test	Post-test	Z-value	p-value
Safe sexual relationship (e.g. Use condom)	221 (74.16%)	240 (80.53%)	1.83	>0.05
Checked blood for blood transfusion	251 (84.22%)	266 (89.26%)	1.81	>0.05
Disposable needle and syringes	215 (72.14%)	228 (76.51%)	1.21	>0.05
HIV/AIDS is not curable disease	102 (34.22%)	223 (74.83%)	9.95	<0.05

Table 3 shows awareness regarding prevention from HIV/AIDS. 74.16% of students were aware that use of condom during sexual relationship, 84.22% aware that use of checked blood for blood transfusion and 72.14% aware that disposable needle and syringes are various measures for prevention from HIV/AIDS. After intervention, there were improvement in these percentages but it was not statically significant (Z test of two proportion was applied, p>0.05)

There was only 34.22% of students were aware that HIV/AIDS is not curable disease but there was significant improvement up to 74.83% (Z value=9.95, p<0.05) (Table 3.)

Discussion :

Awareness is the key to prevention of HIV/AIDS. This study assessed impact of health education on awareness of HIV/AIDS in secondary school students. In this study, 87.58% participants heard about HIV/AIDS. A study done by Shinde M et al showed similar finding (86.72%) whereas study conducted in Delhi and done by Lal et al, showed higher number of percentage (100%).[8,9]

In this study, considerable percentages of student were aware about various modes of transmission of HIV/AIDS and various methods of prevention. Another study done by Gupta et al also showed that good number of percentage of study participants were aware for various modes of transmission of HIV/AIDS.[10] But we found that there were many misconceptions regarding transmission of HIV/AIDS which were significantly reduced after intervention. 58.38% study participants said, it is transmitted by mosquito bite. Another study done by Shinde M et al also showed that 55.69 % study participants had misconception that HIV/AIDS is transmitted by mosquito bite.[8]

This study showed that after intervention, there was significant increase in percentage of students who were aware that HIV/AIDS is not curable. Before intervention, only 34.22% were aware that HIV/AIDS is not curable. Another study done by Gupta et al also showed that only 39.1% of participants were aware that HIV/AIDS is not curable. [10]

Conclusion :

To conclude, this study suggests that there are misconceptions regarding HIV/AIDS in secondary school students. Educational programs are needful and effective to facilitate the students with various domains of HIV/AIDS. So, there is need to strengthen school adolescent education programmes

Relevant curricula should be developed every year in secondary school students.

Recommendations

Strengthen school adolescent education programmes. Incorporation of group discussion, posters, drama during health education programmes is advisable. Relevant curricula should be developed every year in secondary school students.

Declaration:

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Conflict of Interest: Nil

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