

Original Research

To assess the effectiveness of structured teaching programme on knowledge regarding prevention of HIV/AIDS among the adolescents

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ABSTRACT:

Aim: To assess the effectiveness of structured teaching programme on knowledge regarding prevention of HIV/AIDS among the adolescents. **Material and methods:** An evaluative research was conducted in the department of nursing. Four hundred (400) both adolescents' boys and girls studying in schools at Bharatpur Rajasthan were included in this study. In this study a single test group (experimental group) was selected and the knowledge of adolescents towards prevention of HIV/AIDS (dependent variables) was measured before the introduction of structured teaching programmed (independent variables). After the structural teaching programmed, level of knowledge were remeasured. The difference due to the application of the experimental treatment was then determined by comparing the pre test and post test scores. **Results:** Total Post-test mean value was 122.71 higher than total pre test mean value 117.0 and Part wise Post-test mean value was higher than pre test mean value in all 7 part and 't' value also showed statistically significant difference between pre-test and post-test scores indicating the knowledge gain due to structured teaching programme on HIV/AIDS with regard to prevention of HIV/AIDS among adolescents. Post test mean value was found higher than pre test mean value in all 7 Part & also 't' value showed statically significant at 0.001 level. **Conclusion:** On the basis of the findings, the researcher concluded that there was an effectiveness of structured teaching programme regarding HIV/AIDS among the adolescent students.

Keywords: Knowledge, Structured Teaching Programme, HIV/AIDS, Effectiveness, Adolescent.

Received: 23 June, 2022

Accepted: 25 July, 2022

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This article may be cited as: Choudhary AS, Solomon S. To assess the effectiveness of structured teaching programme on knowledge regarding prevention of HIV/AIDS among the adolescents. J Adv Med Dent Scie Res 2022;10(7):167-172.

INTRODUCTION

Adolescence, according to the World Health Organization, occurs between the ages of 10 and 19. The time period between childhood and adulthood is sometimes referred to as the "growing up years." This time of life is also a pivotal juncture when one's values and principles are solidified. These are the years with greatest potential for change in personality and conduct. Now is the time to make sure your growth is "healthy" in every way, and it's also a great time to go on adventures and learn new things.¹

Adolescents make up around 20% of the global population. The young population in India is rapidly expanding. Girls under the age of 19 account for 22% of India's female population, and there are 200 million of them, or more than a quarter of the country's total population.² As a time of both mental and physical changes, adolescence also presents challenges that might hasten a young person's move into adulthood.

Without an education, adolescent girls are more likely to experience disadvantages such as poverty, child or forced marriage, pregnancies at a young age, the risk of HIV infection, and abuse. In India, adolescent females have a disproportionate number of issues related to sexual and reproductive health. A deadly condition caused by the retrovirus known as human immunodeficiency virus (HIV), AIDS (also known as "slim sickness" or "a wasting disease") renders the sufferer susceptible to a wide variety of opportunistic infections, neurological problems, and uncommon cancers. Infecting someone with HIV is risky since it's very probable that they'll always have the virus. Only the latter stage of HIV infection is referred described as AIDS. AIDS is a true global health crisis since it has an impact on both developed and developing nations.³

In the new century, HIV/AIDS has become the greatest threat to public health, human rights, and

development. As of the end of 2008, the Globe Health Organization and UNAIDS projected that 33.4 million individuals throughout the world were infected with HIV. Approximately 2.0 million individuals, including 280,000 children, lost their lives to AIDS that year. 2.7 million people got infected that year. As of the end of 2009, around 5.2 million persons in poor and middle-income countries were taking HIV antiretroviral medication.⁴ Because of the stigma associated with HIV infection, the fear of spreading the virus to others, the impact of the virus on several body systems, and the lack of effective treatments or vaccinations, HIV illness is really one of a kind.⁵ More and more individuals are being infected with HIV and developing or dying from AIDS. More than 95% of new HIV infections are still found in underdeveloped nations, despite global trends showing otherwise. The number of reported cases of HIV/AIDS continues to rise alarmingly fast in several regions of Southeast Asia.³

Nearly a quarter of the Indian population is made up of young individuals (15–24 years old). However, in 2009 they accounted for 31% of the AIDS burden. The prevalence of well-known risk factors for increased sexual activity and promiscuity, including peer pressure, more social connection with people of the opposite sex, and even household issues like broken families and poverty, all contribute to this trend. Teens are less likely to seek sexual health therapy if they live in a conservative community where talking about sexuality is frowned upon. Young people nowadays have developed a pessimistic and ashamed outlook due to the effects of social exclusion and disease-related stigma. This leads to an absence of information regarding preventative measures, which in turn allows the illness to spread undetected. Despite these concerning numbers, sex education has been outlawed in several Indian states due to legislative concerns about its potential harmful effects on young, impressionable brains. Even among economically privileged young people, there is a widespread lack of awareness about the condition.⁶

There are now 2.47 million persons living with HIV in India, making up more than 13% of the total number of HIV-infected people in Asia.⁴ Up to this point, 5,310,000 (WHO) confirmed cases of AIDS have been documented in India, with the vast majority of those affected being adults aged 20–45. In India, young adults (15–24) make up around 35% of the country's HIV cases. Both sexes share blame for the epidemic's rapid growth. An estimated 0.36 percent of adult males and 0.25 percent of adult females are living with HIV.⁷

There are two key areas that need to be addressed in the battle against HIV/AIDS: prevention and care. Educating the public on HIV/AIDS prevention measures is essential in stopping its spread. Efforts to reduce poverty and boost economic growth are also crucial in stopping the spread of HIV. The government, by itself, cannot win this war. Health and

welfare services, development initiatives, and access to information are all responsibilities that fall within the purview of government. Everyone should do everything they can to aid in the battle against HIV/AIDS. Health workers should reach out to as many individuals as possible in their efforts to educate the public about HIV/AIDS prevention, non-discrimination, and support.⁵

MATERIAL AND METHODS

An evaluative research was conducted in the department of nursing. Four hundred (400) both adolescents' boys and girls studying in schools at Bharatpur Rajasthan were included in this study.

INCLUSION CRITERIA

- The adolescents who was not having family history of HIV/AIDS
- Both male and female students with age range from 12-19 years
- Who was willing to participate in the study.
- Students who was present at the time of study.
- Adolescent who have not undergone specific teaching programme regarding prevention of HIV/AIDS
- Who can read, write and understand Hindi and English.

EXCLUSION CRITERIA

- Those having family history of HIV/AIDS
- Who was not willing to participate in the study.
- Students who was not present at the time of study.
- Adolescent who have undergone specific teaching programme regarding prevention of HIV/AIDS.
- Who cannot read, write and understand Hindi and English.

METHODOLOGY

In this study a single test group (experimental group) was selected and the knowledge of adolescents towards prevention of HIV/AIDS (dependent variables) was measured before the introduction of structured teaching programmed (independent variables). After the structural teaching programmed, level of knowledge were remeasured. The difference due to the application of the experimental treatment was then determined by comparing the pre test and post test scores.

Performa for socio demographic data age (years), gender, religion, study class, stream of class, your study habit, type of family, education status of father & mother, occupation status of father and mother, family status, area of residence thus had totally 13 items. Structured questionnaire on Knowledge on prevention of HIV/AIDS among adolescents had 70 items divided into 7 parts.

Items were scored on 3 points scale as Agree, Disagree an undecided by giving weight age of 3,2

and 1 respectively. There were 39 positive items and 11 negative items. Negative items were scored as 3, 2 and 1 for agree, disagree and undecided where for positive items scoring reverse scoring was given. Interpretation was lower the score, higher the positive attitude. The intervention approach selected for the present study was required structured teaching programmed (independent variable) consisting of four sessions, 45 minutes of duration of each with 4 lesson plans. Various teaching methods, like group discussion, lecture method, role-plays, brain storming, quiz and take home assignment were used for teaching.

DATA ANALYSIS

Frequency, percentage, mean, median, standard deviation may be used to describe demographic variables and to interpret knowledge scores. Paired t test will be used to compare pre-test and post-test knowledge scores. Chi square test will be used to find out the association between knowledge scores with selected demographic variables.

RESULTS

Table 1 shows that the majority of the adolescents 154 (38.50%) were aged of 16-17 years, followed by 123 (30.75%) were aged of 14-15 years, 74 (18.50%) were aged of 12-13 years and 49 (12.25%) were aged of 18-19 years. The majority of adolescents were boys 246 (61.5%) and remaining 154 (38.5%) of them were girls. Majority of adolescents 298 (74.50%) belongs to Hindu religion, followed by 49 (12.25%) were Muslims religion, 35 (8.75%) were Christian and

18 (4.5%) were belongs to Sikh religions. Majority of adolescents 157 (39.25%) were from 11th class followed by 144 (36%) were from 12th class, 55 (13.75%) were from 9th class and 44 (11%) were from 10th class. Majority of adolescents 151 (37.75%) were arts stream, followed by 127 (31.75%) were sciences stream, 98 (24.5%) were commerce stream and 24 (6%) were from others subjects. Majority of adolescents 303 (75.75%) were regular in their study habit, remaining 97 (24.25%) were studying private of exam. Majority of the adolescents 293 (73.25%) belongs to Nuclear family and remaining 107 (26.75%) belongs to Joint family. Majority of the adolescents fathers 129 (32.5%) had 10th level education, followed by 88 (22%) had 12th level education, 87 (21.75%) had 8th level school education, 39 (9.75%) had graduate, 37 (9.25%) had Illiterate and 20 (5.0%) were Post graduate. Majority of the adolescents mother's 110 (27.5%) had 10th level education, followed by 103 (27.75%) had Illiterate, 86 (21.50%) had 8th level school education, 51 (12.75%) had 12th, 35 (8.75%) had graduate and 15 (3.75%) were Post graduate. Majority 256 (64%) of the adolescents of fathers were private worker followed by 59 (14.75%) were government employees, 54 (13.5%) were businessman and 31 (7.75%) were unemployed. Majority 244 (61%) of mothers were unemployed followed by 87 (21.75%) were government employees, 53 (13.25%) were private employees and 16 (4.0%) were businessman. Majority of the adolescents 236 (59%) had middle class, 89 (22.25%) had lower 5000, and 75 (18.75%) had from upper class.

Table 1 Demographic profile

Age	Number	Percentage
12 to 13	74	18.50
14 to 15	123	30.75
16 to 17	154	38.50
18 to 19	49	12.25
Gender		
Boys	246	61.5
Girls	154	38.5
Religion		
Hindu	298	74.50
Muslim	49	12.25
Christian	35	8.75
Sikh	18	4.5
Study class		
9 th	55	13.75
10 th	44	11
11 th	157	39.25
12 th	144	36
Stream of Study		
Arts	151	37.75
Commerce	98	24.5
Science	127	31.75
Others	24	6
Study habit		
Regular	303	75.75

Private	97	24.25
Family of adolescents		
Joint	107	26.75
Nuclear	293	73.25
Education status of Father		
Illiterate	37	9.25
8 th	87	21.75
10 th	129	32.25
12 th	88	22
graduate	39	9.75
P.G	20	5.0
Education status of Mother		
Illiterate	103	25.75
8 th	86	21.5
10 th	110	27.5
12 th	51	12.75
Graduate	35	8.75
P.G	15	3.75
Occupation status of Father		
Government employees	59	14.75
private employees	256	64
Business	54	13.5
unemployed	31	7.75
Occupation status of Mother		
Government employees	87	21.75
private employees	53	13.25
Business	16	4
unemployed	244	61
Family status		
lower class	89	22.25
middle class	236	59
upper class	75	18.75
Area		
Rural	179	44.75
Urban	221	55.25

Table.2: Pre and post test score comparison on knowledge Questionnaires

	Mean±SD	P- value
Pre test	117.0±11.58	0.001
post test	122.71±12.74	

Table 3: Part wise pre and post test score comparison on knowledge Questionnaires.

Parts	Pre Test	Post Test	Std error mean		mean diff	t-value	p-value
Part1	17.55±3.11	18.01±3.63	0.11	0.21	0.46	1.55	0.001
Part2	6.89±1.03	7.21±1.12	0.04	0.06	0.32	8.11	0.001
Part3	22.36±2.63	23.27±2.74	0.12	0.31	0.91	6.17	0.001
Part4	8.19±1.01	9.33±1.03	0.03	0.04	1.14	8.03	0.001
Part5	16.12±2.02	17.06±2.44	0.07	0.08	0.94	6.97	0.001
Part6	23.98±3.42	25.14±3.65	0.06	0.07	1.16	9.87	0.001

Part7	Prevention of HIV /AIDS	21.91±3.11	22.69±3.23	0.33	0.45	0.78	10.11	0.001
Total		117.0±11.58	122.71±12.74	0.76	1.22	5.71	-	0.001

Total Post-test mean value was 122.71 higher than total pre test mean value 117.0 and Part wise Post-test mean value was higher than pre test mean value in all 7 part and 't' value also showed statistically significant difference between pre-test and post-test scores indicating the knowledge gain due to structured teaching programme on HIV/AIDS with regard to prevention of HIV/AIDS among adolescents. Post test mean value was found higher than pre test mean value in all 7 Part & also 't' value showed statically significant at 0.001 level. (Table 2)

Table 3 dealt with pre test and post test and Part wise pre-test and post-test comparison on knowledge questionnaire. There were totally 7 Parts.

Part- 1 Introduction of HIV / AIDS had mean value 17.55±3.11 in pre test were as post –test mean value 18.01±3.63 and 't' value 1.55. The difference between pre test and post test scores was found statistically significant at 0.001 level. Part -2 Epidemiology of HIV /AIDS had mean value 6.89±1.03 in pre test were as post –test mean value 7.21±1.12 and 't' value 8.11. The difference between pre test and post test scores was found statistically significant at 0.001 level. Part -3 Mode of transmission had mean value 22.36±2.63

in pre test were as post –test mean value 23.27±2.74 and 't' value 6.17. The difference between pre test and post test scores was found statistically significant at 0.001 level.

Part -4 Clinical manifestation of HIV /AIDS had mean value 8.19±1.01 in pre test were as post –test mean value 9.33±1.03 and 't' value 8.03. The difference between pre test and post test scores was found statistically significant at 0.001 level.

Part-5 Diagnosis and management of HIV/AIDS had mean value 16.12±2.02 in pre test were as post-test mean value 17.06±2.44 and 't' value 6.97. The difference between pre test and post test scores was found statistically significant at 0.001 levels. Part-6 HIV /AIDS risk Behavior of adolescents had mean value 23.98±3.42 in pre test were as post –test mean value 25.14±3.65 and 't' value 9.87. The difference between pre test and post test scores was found statistically significant at 0.001 levels. Part-7 Prevention of HIV /AIDS among adolescents had mean value 21.91±3.11 in pre test were as post –test mean value 22.69±3.23 and 't' value 10.11. The difference between pre test and post test scores was found statistically significant at 0.001 level.

Table-4 Association between Knowledge Score and Selected Socio-demographic parameter.

Parameter	Pre-test		Post-test		P-value
	df	X ² value	df	X ² value	
Age	3	3.22	3	11.89	P<0.001
Religion	3	9.74	3	13.61	P<0.001
Stream	3	15.69	3	16.88	P<0.001
Mother Education	5	8.34	5	17.63	P<0.001
Area of Residence	1	0.66	1	11.88	P<0.001

Table 4 showed that the association between the knowledge score with selected socio-demographic parameter. There were 13 variables placed in socio demographic data sheet chi-square value showed significant association only in 5 variables such as, Age, Religion, stream, Mother education, area of residence showed significant association with knowledge scores at 0.001 level. Age chi- square value 3.22 in the pre test and 11.89 was in the post test indicating the association with knowledge score was significant at 0.001 level. Religion chi- square value 9.74 in the pre test and 13.61 was in the post test indicating the association with knowledge score was significant at 0.001 level. Stream chi- square values 15.69 in the pre test and 16.88 was in the post test indicating the association with knowledge score was significant at 0.001 level. Mother Education chi-square value 8.34 in the pre test and 17.63 was in the post test indicating the association with knowledge score was significant at 0.001 level. Area of residence chi- square value 0.66 in the pre test and 11.88 was in the post test indicating the association with knowledge score was significant at 0.001 level. Rest of them 8 variables such as Gender, Type of family, Class,

study, habit, father education, father occupation, mother occupation, family income showed no significant association with knowledge scores at 0.001 level.

DISCUSSION

Majority of the adolescents 154 (38.50%) were aged of 16-17 years, followed by 123(30.75%) were aged of 14-15 years, 74(18.50%) were aged of 12-13 years and 49(12.25%) were aged of 18.19 years. The finding of their study had shows that students of this age have engaged in risky sexual practices which were high risk factors for HIV infection.⁸ The majority of adolescents were boys 246(61.5%) and remaining 154 (38.5%) of them were Girls. Gender ratio is one of the social indicators which show the equality between boys and girls. There is a continuous decline in the gender ratio of Rajasthan in past times, due to many reasons but the main reason behind this is presence of son preference over daughters. The census of 2011 shows a marginal increase in the sex ratio of Rajasthan, which improves from 921 in 2001 to 926 in 2015.⁹ The majority of the adolescents mother's 110(27.5%) had 10th level education,

followed by 103(27.75%) had Illiterate, 86(21.50%) had 8th level school education, 51(12.75%) had 12th, 35(8.75%) had graduate and 15(3.75%) were Post graduate. It could be inferred that education of mothers level found still lesser than fathers in Rajasthan. In India it is considered to be that women getting educated in difficulty especially after obtaining puberty by the time girls reach senior secondary school they attain menarche and further they are not send for higher studies. A similar study is to determine the effect of different socio-economic and demographic factors on knowledge and awareness about STDs among women. Campaigns and mass media need to increase the knowledge and awareness among the community, especially among women.¹⁰ Post test mean value was found higher than pre test mean value in all 7 Part & also 't' value showed statically significant at 0.001 level. Total Post-test mean value was 122.71 higher than total pre test mean value 117.0 and Part wise Post-test mean value was higher than pre test mean value in all 7 part and 't' value also showed statistically significant difference between pre-test and post-test scores indicating the knowledge gain due to structured teaching programme on HIV/AIDS with regard to prevention of HIV/AIDS among adolescents. The finding of the present study was compared with the finding of earlier research studies. Similar study was conducted to determine the effectiveness of an HIV/AIDS educational intervention on secondary school students' knowledge about and perceptions of susceptibility and severity of HIV/AIDS. It revealed that effectiveness of structured teaching programme on the level of knowledge on HIV in the experimental group.¹¹ Study conducted qualitative research on culture and gender based approach to HIV/AIDS to assess risk factors among adolescents. Eight girls participated in the eight week intervention. Focus group and observation participation data revealed that three major themes "high aspiration, heeding to know the truth" and "internal, external, and eternal resources" Findings shows improved knowledge after intervention.¹²

CONCLUSION

On the basis of the findings, the researcher concluded that there was an effectiveness of structured teaching programme regarding HIV/AIDS among the adolescent students.

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