

Do the Remote Area Adolescents have an Insight about HIV/AIDS? : Analysis on the Tribal Adolescent Student's Acquaintance on HIV/AIDS

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Abstract: Purpose: The purpose of this study was to assess HIV and AIDS knowledge among adolescent tribal students in Jawadha hills of Tamil Nadu. **Design / Methodology/ Approach:** This study mainly focuses on the objectives which includes their demographic details, basic knowledge about the HIV/AIDS, difference between HIV and AIDS, its symptoms and diagnostic tests. The primary data was taken through the interview method and secondary data from a wide range of literature. **Research Limitation:** The population chosen for this study was 8 schools which are meant for the scheduled tribe (ST) community in Vellore and Thiruvannamalai educational districts. Among the total adolescent population (3752: both male and female) studying from 8th standard to plus –II (adolescents: Age 13 – 21 years old) included in this study is called universe. Both male (507) 54% and female (431) 46%, who attended school on that day were taken into account, applying by STRATA method. **Practical Implication:** This study would help to identify their level of knowledge on HIV/AIDS. It also reveals about their various perceptions about the illness. Through their knowledge, it would identify the correlation about the illness among the gender, type of school and their age groups. **Findings:** Findings of the study highlight on the student's level of knowledge and it also revealed that HIV and AIDS misinformation among both male and female adolescents in the areas of knowledge, facts and personal vulnerability. The demographical variable does have an impact of their level of knowledge. Implications for HIV, AIDS education and prevention are discussed. Suggestions are given to the higher authorities and local non-governmental organizations to conduct more awareness camps about the HIV/AIDS. **Originality/Value:** Study on analysis of the adolescent tribal student's acquaintance about HIV/AIDS is the original work of the author.

Keywords: Knowledge, HIV/AIDS, Adolescents Students

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1. INTRODUCTION

The world today is facing a global pandemic of HIV / AIDS infection that is by any measure astounding in its scale. As the cure is still a distant dream, millions of people, most of them being from developing countries and in their early youth, including India have already breathed their last because of opportunistic diseases attributable to HIV infection. HIV is a silent virus whose presence cannot be detected without appropriate tests on a suspicion about its presence or until such time that the infection gets manifested into AIDS and makes the blood test imperative. It is widely documented that half of all new infections of HIV / AIDS now occur in young people under the age of 25. While the spread of the virus may be slowing among other members of the global community, increase in the incidence of the disease appears to be the norm among youth all over the world [1]. Lack of knowledge on the preventive aspects could leave the adolescents under- informed, leading to negative and stigmatizing attitudes, unnecessary rejection and discrimination of persons living with HIV / AIDS. Therefore, it is important that adolescents have the right knowledge and attitude towards this syndrome / infection which has reached pandemic levels.

Young adults aged 15–29 years, account for 32% of AIDS (Acquired Immunodeficiency Syndrome) cases reported in India and the number of young women living with HIV / AIDS is twice that of young men. [2] Information about knowledge through regular surveys is essential to give a better understanding on the dynamics of the HIV / AIDS epidemic. This information is also important in assessing changes over time as a result of prevention efforts. The aim of the present study is to evaluate tribal adolescent school student's knowledge towards HIV / AIDS and sexual education

2. OPERATIONAL DEFINITIONS

Knowledge, according to Cambridge dictionaries, [3] understanding of or information about a subject that you get by experience or study, either known by one person or by people generally". The level of understanding and acquiring information of any subjects an individual varies from person to person and is also based on the circumstances, family background, peer group association, social gathering, and exposure to various phenomenons.

The various terminologies used in this research study may be carrying a different dictionary meaning. But, the researcher might have simplified and modified them contextually so as to make them usable to not only fulfill the objectives of the research, but also make them comprehensible to the respondent. Hence, such an operationalisation of the terminologies needs an explanation. The researcher therefore has presented the terminologies here as Knowledge: According to Oxford Advanced Learners Dictionary, [4] Knowledge is - The information, understanding and skills that one gains through education or experience. In this study the information and understanding about HIV / AIDS by the adolescents, gained through various sources

have been considered as knowledge. Adolescence: WHO [5] includes, that period in life aged between 10-19 years as adolescence, the word meaning "to grow up". For the purpose of this study, the period of human life cycle between 13 to 19 years of biological age, both inclusive, is considered as 'adolescence' and an 'adolescent' is construed accordingly, i.e., a person in his/her teens, who has completed his/her 12th year of age, but not completed his/her 20th year of age.

In 2012, of all new adult HIV infections identified, around 39 percent were young people aged 15-24. [6] This study aims to find out the knowledge about HIV/AIDS among the adolescent tribal students.

3. MATERIALS & METHODS

This study is based on the primary sources of data, which are collected through interview schedules. The respondents chosen for this descriptive, cross-sectional study are students studying from 8th standard to plus two from all the eight schools run, for the schedule tribe community (ST) in Vellore and Thiruvannamali Educational districts. Initially the entire class strength of the students, both boys and girls, from 8th standard to plus two were collected (3752), and from this list, by using simple, systematic, stratified random selection method, more than 25 % of the respondents were selected for this study. Both male students (507) 54% and female students (431) 46%, who attended school on that day were taken into account, applying STRATA (Stratify simple systematic random selection) method.

3.1. Ethical Considerations

Written consent from the Chief Educational Officers (CEO) of Vellore and Thiruvannamalai districts were obtained to carry out the research. Permission was also obtained from the Heads of the schools involved and based on the permission the Headmaster and Headmistress have the authority to allow cross sectional surveys to be conducted without parental consent. This complies with the Helsinki Declaration for research conducted on humans. On behalf of the respondents, the written consent was signed by the heads and parent teacher association heads of the concerned schools.

3.2. Data Collection

After obtaining the permission and the ethical consent from the concerned educational departmental authorities and the heads of the schools, the pre test for this study was carried out. Based on the analysis, a few questions were modified and sets of questionnaire were given to the respondents. The questionnaire had two sections. The first section was on the demographical details and the second was on the knowledge. The knowledge questions were developed on 5 point Likert scale, where the possible responses were strongly agreed, agreed, no idea, disagreed and strongly disagreed.

3.3. Reliability Test

The Chronbach's Alpha (α) measuring the internal consistency of the variable is given by the formula

$$\alpha = \frac{kr}{1 + (k-1)r}$$

Where

k= items in the Likert scale

r = average correlation between the pairs of items

The value obtained (0.690) shows a good internal consistency among the variables, which implies that all the items within the instrument measure the same thing.

3.4. Data Analysis

Descriptive analysis was carried out using SPSS package (version-19). Based on the five point Likert scale, one way ANOVA tests had been carried out between various age groups, and knowledge about HIV/AIDS. Based the responses of the five point Likert scale collected, the responses were additionally grouped in two groups, one with responses of Strongly agreed and Agreed, and the other group having the remaining three responses namely, No idea, Disagreed and Strongly disagreed. These two groups were compared and tested using Pearson's Chi-square test.

Table 1
Selected Characteristics of the Respondents

Categories	Characteristics	N		Total	
		No.	%	No.	%
Type of school	Government School	352	37.5	938	100 %
	Forest Department School	586	62.5		
Sex	Male	507	54.1	938	100 %
	Female	431	45.9		
Age	13-15 Years	676	72.1	938	100 %
	16-18 Years	244	26.0		
	19-21 Years	18	1.9		
Level of education	VIII Standard	192	20.5	938	100 %
	IX Standard	306	32.6		
	X Standard	230	24.5		
	Plus One	110	11.7		
	Plus Two	100	10.7		
Religion	Hindu	682	72.7	938	100 %
	Christian	130	13.9		
	Muslim	126	13.4		

Table 1
Selected Characteristics of the Respondents

Categories	Characteristics	N		Total	
		No.	%	No.	%
Type of family	Nuclear Family	519	55.3	938	100 %
	Joint Family	419	44.7		
Currently residing	With Parents	521	55.5	938	100 %
	With Relatives	33	3.5		
	With Grand Parents	34	3.6		
	Hostel	350	37.3		
Father's education	Illiterate	416	44.3	938	100 %
	First standard – Eight standard	338	36.0		
	Ninth Standard – Plus Two	174	18.6		
	Degree & Above	10	1.1		
Mother's education	Illiterate	555	59.2	938	100 %
	First standard – Eight standard	301	32.1		
	Ninth Standard – Plus Two	79	8.4		
	Degree & Above	3	0.3		

Table 2
Knowledge about HIV/AIDS in General

Categories	Characteristics	N		Total	
		No.	%	No.	%
Through, whom you heard	Through Books	138	14.7	938	100 %
	Through Doctor	67	7.1		
	Through Friends	166	17.7		
	Through Hospital	76	8.1		
	Through Media	95	10.1		
	Through Teacher	396	42.2		
Age of the respondents, when they heard first time about HIV/AIDS	10 years old	104	11.1	938	100 %
	11 years old	91	9.7		
	12 years old	329	35.1		
	13 years old	263	28.0		
	14 years old	72	7.7		
	15 years old	58	6.2		
What is HIV	Human Immunodeficiency Virus	62	6.6	938	100 %
	Communicable disease	33	3.5		
	Killer disease	33	3.5		
	Don't Know	810	86.4		
What is AIDS	Acquired immune deficiency syndrome	09	1.0	938	100 %
	Communicable Disease	37	3.9		
	Infectious Disease	97	10.3		
	Don't Know	795	84.8		
Difference between HIV & AIDS	HIV - Virus & AIDS - Disease	28	3.0	938	100 %
	Killer Disease	27	2.9		
	Don't know	883	94.1		

Table 2
Knowledge about HIV/AIDS in Specific

Categories	Characteristics	N		Total	
		No.	%	No.	%
Symptoms of AIDS	Fever with weight loss	21	2.2	938	100 %
	Loss of weight	13	1.4		
	Don't know	904	96.4		
Tests to diagnose AIDS	Blood	57	6.1	938	100 %
	Eliza Test	26	2.8		
	Western Blot	34	3.6		
	Others	129	13.8		
	Don't know	692	73.8		

Table 3
ANOVA Shows the Relationship between the Age Groups of the Respondents and the Various statement of Knowledge about HIV/AIDS

#	Variable	Source of variation	Sum of Squares	Df	Mean Square	F	Sig
B1	HIV/AIDS can be cured	Between groups	37.076	2	18.538	10.442	.000
		Within groups	1659.953	935	1.775		
		Total	1697.029	937			
B2	HIV& AIDS are same illness	Between groups	13.596	2	6.798	4.197	.015
		Within groups	1514.380	935	1.620		
		Total	1527.975	937			
B3	There is a vaccine that under trail for the prevention of HIV Infection	Between groups	10.234	2	5.117	2.926	.054
		Within groups	1635.370	935	1.749		
		Total	1645.604	937			
B4	A person will not get HIV, if he/she is taking antibiotics	Between groups	12.362	2	6.181	3.684	.025
		Within groups	1568.646	935	1.678		
		Total	1581.007	937			
B5	Some drugs are available to cure HIV	Between groups	35.627	2	17.813	9.347	.000
		Within groups	1781.981	935	1.906		
		Total	1817.608	937			
B6	Eating healthy food can keep a person from getting HIV	Between groups	41.731	2	20.865	10.730	.000
		Within groups	1818.176	935	1.945		
		Total	1859.906	937			
B7	One can get HIV, by sitting next to a person with HIV/AIDS	Between groups	43.716	2	21.858	10.465	.000
		Within groups	1952.941	935	2.089		
		Total	1996.657	937			
B8	Having Sex with sex worker can get the infection on HIV	Between groups	11.839	2	5.920	3.452	.032
		Within groups	1603.190	935	1.715		
		Total	1615.029	937			
B9	A pregnant woman with HIV can gives the virus to her unborn baby	Between groups	10.588	2	5.294	2.816	.060
		Within groups	1757.498	935	1.880		
		Total	1768.085	937			
B10	A person can get HIV, if he/she had sex with a person who is infected with HIV	Between groups	29.700	2	14.850	9.897	.000
		Within groups	1402.957	935	1.500		
		Total	1432.657	937			
B11	Having sex with more than one partner can increase chances of being infected with HIV	Between groups	19.837	2	9.918	6.341	.002
		Within groups	1462.577	935	1.564		
		Total	1482.414	937			

Table 5
ANOVA Shows the Relationship between the Age Groups of the Respondents and Overall various Statements of Knowledge about HIV/AIDS

Variable	Source of variation	Sum of Squares	Df	Mean Square	F	Sig
Knowledge about HIV/ AIDS (All Variables)	Between groups	1805.724	4	451.431	21.217	.000
	Within groups	19851.356	933	21.277		
	Total	21657.080	937			

CHI-SQUARE ANALYSIS

(1) H_0 : Knowledge about that there is a vaccine that under trail for the prevention of HIV / AIDS and gender is independent

H_1 : Knowledge about that there is a vaccine that under trail for the prevention of HIV / AIDS and gender is dependent

Pearson Chi-Square	Value	df	Asymp. Sig. (2-sided)
	8.219 ^a	1	.004

INTERPRETATION

Chi-Square test reveals that the Sig. value is .004, which is less than p value of 0.05; hence, there is an association between knowledge about the existence of a vaccine that under trail for the prevention of HIV / AIDS and gender.

(2) H_0 : Knowledge about HIV and AIDS are same illness and gender is independent

H_1 : Knowledge about HIV and AIDS are same illness and gender is dependent.

Pearson Chi-Square	Value	df	Asymp. Sig. (2-sided)
	4.647 ^a	1	.031

INTERPRETATION

Chi-Square test reveals that the Sig. value is .031, which is less than p value of 0.05. It can be inferred that there is an association between the gender and the knowledge about HIV and AIDS are same illness (dependent) . Hence, null hypothesis is not accepted

(3) H_0 : Knowledge about taking antibiotic drugs will not get HIV / AIDS and gender is independent.

H_1 : Knowledge about taking antibiotic drugs will not get HIV / AIDS and gender is dependent.

Pearson Chi-Square	Value	df	Asymp. Sig. (2-sided)
	6.442 ^a	1	.011

INTERPRETATION

Chi-Square test reveals that the Sig. value is .011, which is less than p value of 0.05; we reject the null hypothesis, accept the alternative hypothesis and conclude that Knowledge about taking antibiotic drugs will not get HIV/AIDS and gender is dependent.

(4) H_0 : Knowledge on Drugs availability to cure AIDS and gender is independent.

H_1 : Knowledge on Drugs availability to cure AIDS and gender is dependent.

<i>Pearson Chi-Square</i>	<i>Value</i>	<i>df</i>	<i>Asymp. Sig. (2-sided)</i>
	13.488 ^a	1	.000

INTERPRETATION

Chi-Square test reveals that the Sig. value is .000, which is less than p value of 0.05; we reject the null hypothesis, accept the alternative hypothesis and conclude that Knowledge on Drugs availability to cure AIDS and gender is dependent. .

(5) H_0 : Knowledge about eating healthy foods will cure AIDS and gender is independent.

H_1 : Knowledge about eating healthy foods will cure AIDS and gender is dependent.

<i>Pearson Chi-Square</i>	<i>Value</i>	<i>df</i>	<i>Asymp. Sig. (2-sided)</i>
	8.219 ^a	1	.004

INTERPRETATION

Chi-Square test reveals that the Sig. value is .004, which is less than p value of 0.05; we reject the null hypothesis, accept the alternative hypothesis and conclude that Knowledge about eating healthy foods will cure AIDS and gender is dependent.

4. FINDINGS

Table 1 show that the local government has initiated to provide education to the unreached communities. The central government has also stepped forward to repatriate the Adivasi communities (schedule tribe) directly under the control of Ministry of Forests and Resources. More than, 60% of respondents participated were from forest tribal schools managed by the Department of Forests and Natural Resources. Both gender students participated although with little difference. Nearly 72% of the students were between the age group of 13-15 years. In order to find out the effect and impact on their knowledge by the family type, the researcher found that more than 50% of the students were living as a nuclear family with parents and grandparents.

Table 2 depicts the knowledge about HIV/AIDS in general, of which nearly 42 % of the respondents came to know about HIV/AIDS through their teachers. Between the age group of 12-13, more than 60% of the respondents had heard about HIV/

AIDS. The questions were asked to find out their depth of knowledge about HIV / AIDS and the difference between HIV and AIDS. More than 80 % of the respondents did not know the meaning of HIV and AIDS, and the difference between them. More than 90% of the respondent did not even know that both were different. When it comes to the knowledge about the symptoms of the AIDS, more than 95% of the respondents were not aware of it. Hardly 3% of the respondents said the exact terminology of the tests performed to diagnosis the AIDS, which are Elisa and Western Blot test.

Table 3 indicates the significant value of the variance of analysis of the variables in knowledge about HIV / AIDS. The variables in knowledge section pertaining to this analysis, B1- HIV / AIDS can be cured, with significant value of 0.000, B2- HIV & AIDS are same illness with significant value of 0.015, B4- A person will not get HIV, if he / she is taking antibiotics with significant value of 0.025, B5- Some drugs are available to cure HIV with significant value of 0.000, B6- Eating healthy food can keep a person from getting HIV with significant value of 0.000, B7- one can get HIV, by sitting next to a person with HIV / AIDS with significant value of 0.000, B8- Having Sex with sex worker can get the infection on HIV with significant value of 0.032, B10- A person can get HIV, if he / she had sex with a person who is infected with HIV with significant value of 0.000 and B-11- Having sex with more than one partner can increase chances of being infected with HIV with significant value of 0.002. Of all these nine variables are less than the hypothetical values of 0.05 (at 5% level of significant). Therefore, the null hypotheses are not accepted, hence there is a significant difference between the age groups of the adolescence tribal students and their level of knowledge about HIV / AIDS in the nine variables.

Variables like, B3- There is a vaccine that under trail for the prevention of HIV Infection with significant value 0.054. B9- A pregnant woman with HIV can give the virus to her unborn baby with significant value .060, of these two variables are more than the hypothetical value of 0.05 (at 5% level of significant), therefore, the null hypothesis is accepted. Hence, there is no significant difference between the age groups of adolescence tribal students and their level of knowledge about HIV / AIDS particular towards B3 and B9 variables.

Table 5, However, the table 5 indicates that sum of all the eleven variables on knowledge about HIV / AIDS, are less than the hypothetical values of 0.05 (at 5% level of significant). Therefore, the null hypotheses are not accepted, hence there is a significant difference between the age groups of the adolescence tribal students and their level of knowledge about HIV / AIDS.

5. DISCUSSION

The researchers have concluded this qualitative study on Analysis of the Adolescent tribal student's acquaintance with HIV / AIDS with the finding that most of the respondents, both male and female adolescent tribal students have heard about HIV /

AIDS. However, the respondents in this study did not have in-depth knowledge on the various aspects related to the HIV/AIDS. In fact, a study conducted in South west Nigeria (Bimbola Kemi Odu *et al.* (2008) [7] found that youth have a very high knowledge of the basic key concept on HIV/AIDS, but most youth have misconceptions about the cure of AIDS. A study in Karnataka- India (Shweta C *et al.* (2011) [8] stated that there is still a lot of scope to make the adolescents more aware of HIV/AIDS which would help them adopt a positive behavior and limit the spread of infection.

Study conducted in Solapur District, Maharashtra State, India by (Caroline Andersson & Camilla Westergren (2010)), [9] found that all the students have heard about HIV/AIDS but their knowledge about how HIV is transmitted is incomplete and there are still many misconceptions. A cross sectional study conducted by Lal SS *et al.* (2005) [10] in Kerala – India, found that the gap in knowledge and attitude between boys and girls, and between rural and urban students suggests the need for targeting girls in rural areas in the national AIDS education and awareness campaigns. A study conducted by Li-Ping Wong *et al.* (2008) [11] among Malaysian young adults, found that the level of general HIV/AIDS knowledge among young was moderate, as indicated by a total mean score of 4.6 out of 7 points. Also a significant gender difference in general HIV/AIDS knowledge, with females being more knowledgeable than males. Suggestions were made to education and intervention programs to increase the level of knowledge and awareness of HIV/AIDS.

6. CONCLUSIONS

From the above study, it is clearly seen that the basic knowledge and awareness about HIV/AIDS with correct information is needed to the adolescent tribal students. The awareness programme on HIV/AIDS should be need-based and focused. It should also help the student community about the stigma related issues. According to the experts, adolescence and adulthood are the periods of transition. If they do not learn, understand and practice in their life, the rest of their life will be a disaster. Gaining the knowledge with correct information will help the adolescent group to shape their life in a prospective way. This study results shows that, between the age group of 12-13, they had heard about HIV/AIDS. However, when we explore in depth, knowledge about HIV/AIDS, symptoms, diagnostics tests, more than 80% of the respondents were not aware of the illness. Knowledge gained from this study will be used to make recommendations regarding HIV/AIDS that could enable adolescent students, The State Board of Education and the Nationwide Education Council Board to implement policies, strategies and programmes via the curriculum of schools that could help reduce the prevalence of HIV/AIDS among the school adolescent students in tribal areas of Tamilnadu and India. The knowledge of the study population was satisfactory, and there is a need for innovation and comprehensive education to impart better knowledge and understanding about HIV/AIDS.

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