

**INTERNATIONAL JOURNAL OF ENGINEERING SCIENCES & RESEARCH
TECHNOLOGY****KNOWLEDGE OF FEMALE ADOLESCENT'S REGARDING THE TREATMENT
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ABSTRACT

Aims/purpose: The present study was an attempt to assess need of knowledge based counseling among 13 to 17 year old adolescents.

Methodology of study: The total sample for the present study included 400 adolescents i.e. 200 from different girl's high schools and 200 from women's colleges which are the most of HIV prevalence blocks of the Ganjam district of Odisha state. By using exploratory and the descriptive study design, the researcher attempts to describe female adolescents' knowledge and understanding regarding HIV/AIDS, A scheduled questionnaire was used covering all aspects of HIV/ AIDS and observation methods were also used to collect the data from the adolescent girls. To analysis data the researcher used frequency percentages and the t- tests were computed.

Findings: The study found out that nearly half of the respondents (49.5%) reported that they did not have any idea about the availability of treatment for HIV infected person, while (23.3%) of the respondents reported that allopathic medicines are available to treat HIV infected persons whereas only (15.8%) of the respondents had right knowledge about the proper treatment for infected people. Which shows that the adolescent have insufficient knowledge about the treatment.

Conclusion and. Recommendations: The present study will help to focuses of adolescent's level of knowledge about the availability of treatment and proper diet because HIV/AIDS is not a curable disease anymore and ART is the only solution for positive people they need extra guide line to increase coping skills and need for adequate support system. Right knowledge right action right time can change the life of an individual as well as the society.

KEYWORDS: Knowledge of HIV/AIDS, Adolescents and treatment.

I. INTRODUCTION

India thought to be currently having that greatest number of people living with HIV/AIDS and without considerable prevention and treatment efforts these numbers will continue to be change dramatically in the years to come. HIV infection in India is rapidly spreading from urban to rural areas and from marginalised, high risk populations, such as sex workers, truck drivers, injecting drug users and men who had sex with men into the mainstream population. Women often become infected from their spouse or partner, who rarely acknowledge extra marital relationships, from which psychological stretch on individual with HIV in general is great it is especial difficult and painful for women who become infected by their spouse with HIV/AIDS. It is often compounded in vulnerable groups such as women and children especially adolescents the most aggressive group always try to experiment the world according to their wish. The AIDS is undoubtedly the most devastating pandemic mankind has ever faced. As a cure remains elusive, the disease continues to propel the evanescence of life. Today, the global community seems to be struggling as the disease rips apart the social and economic fabric of the society by killing people in prime of their youth, rendering millions of children orphans and shattering homes and hopes alike. With remote prospects for a cure/vaccine, the challenge to contain the spread of HIV has become imperative. Although no culture or community is known to be immune to AIDS yet, certain populations are more vulnerable to the disease because of their high-risk behaviors. Also, it is true that certain vulnerable populations have remained either untouched or non-responsive to the ongoing prevention efforts.

Importance of HIV/AIDS and its prevalence: Adolescents are a rich human resource and an important part of the development process. Good health of adolescents will help in raising the health status of the community.

Adolescents in India are highly vulnerable to human immunodeficiency virus (HIV) acquired immunodeficiency syndrome (AIDS) and other sexually transmitted infections (STIs). Health of adolescent girls has an intergenerational effect. Adolescents are distinct population group with particular needs and capacities. Sexuality is one of the most sensitive issues associated with adolescence. Despite 35 percent of the population being in the 10-24 age groups, the health needs of the adolescents have neither been researched nor addressed adequately; particularly their reproductive health needs are often misunderstood, unrecognized or underestimated. Limited research shows that adolescents are indulging in premarital sex more frequently at an early age, the incidence of pregnancies among them is rising and most of them face the risk of induced abortions under unsafe conditions, and contracting sexually transmitted infections including HIV.

Consequence of HIV/AIDS: HIV (Human immunodeficiency virus) major public infection has now spread to every country in the world and continues to be a -health issue. Statistics show that approximately 40 million people currently living with HIV infection and an estimated 40 million have died from this disease since the beginning of the epidemic. A vast majority will die in the next 10 years or so due to the lack of awareness, lack of proper treatment due to infection and the existing poor socio-economic condition of that region till date 1459 patient have died in Odisha and 1276 died in Ganjam district due to HIV/AIDS (ICTC- REPORT-2017). The medications do not actually rid the body of the virus, which has the ability to elude medications by lying dormant in cells called CD4+ T cells, which signal another type of T cell, the CD8, to destroy HIV-infected cells. When a person with HIV stops treatment, the virus emerges and replicates in the body, weakening the immune system and raising the likelihood of opportunistic infections or cancers that can sicken or kill the patient.

Treatment of the Disease: Thirty five year after its first diagnosis in the United States, there is still no cure for AIDS. But treatment is improving and consists mainly of fighting the symptoms of the “opportunistic” infections which take advantage of the victims damaged immune system: pneumonia, fungal infection, tuberculosis, cancer and diarrhea. But when the treatment stops the same or a different infection eventually returns. A substance which eliminated the virus without poisoning the patient would be the ideal drug for treating AIDS. But even this would not be a cure if the virus had already destroyed a part of the person’s immune system Instead of focusing on antiviral agents much research is now being directed towards drugs, which prevent the virus from reproducing and colonizing more immune system cells. AIDS patients would have to take these drugs for life: unfortunately many of the drugs tested so far have toxic side effects, even in the short term. At present the leader in the field of AIDS drugs is AZT (zidovudine) it crosses the blood – brain barrier, can be taken orally and has been approved for use against AIDS in most industrialized countries. ART is a combination of drugs that reduces the amount of HIV in the body (Viral load) by interfering with its replication. ART does not completely destroy the virus or cure the disease. With reduce virus in the body, the immune system can become stronger and fight infection more effectively, resulting in decreased morbidity for the patient. ART has been shown to benefit to both adults and children living with HIV/AIDS with effective treatments now available, HIV infection does not leads to AIDS. It is important to reflect reportage. Since HIV is not synonymous with AIDS, ‘HIV/AIDS’ as a term is no longer considered accurate. With AIDS not being a singular disease but a syndrome define by a variety of disease and cancer, a person does not die of AIDS. It would instate be accurate to report that he or she died of an HIV related illness. Researchers have been working hard for decades yet there is no known cure for HIV or AIDS although the infection is treatable with a positive impact on the quality of life (Ramamurti 2008).

- **Cure/vaccine for AIDS:** So far there is no cure for AIDS and a vaccine may be far away (NACO 2007). Presently, the disease is not curable. One way it is spreading with a high ratio and in other it is not curable. Such situation there needs awareness about the disease in every section of the society. There is a need of health education in India. People must think, getting Health Education is their fundamental rights. The government must procure the health education for all. Empirically, it is found that women are forced to unsafe sex. Even in the brothels prostitutes are forced for it. The other part of the reality of women life is also precarious. Forced sex with distance relatives, sexual relation through blackmailing, continuous gang rape etc. spread the disease. So, there is a need of controlling the life killing disease like AIDS. The health education may help the people to change their behavior, attitude, and practices, media, social scientists, social workers, teacher students and other professional have prime role for its eradication.
- **Triple dose of HIV+ expecting Mothers:** A triple-medicine dosage is being administered to 2,866 pregnant women suffering from HIV/AIDS in the state. The pilot project is being carried out in Andhra Pradesh to check the transmission from parent to child. Earlier, the single dosage give to HIV- infected

dosage given to HIV-Infected women had shown a transmission rate of 25 per cent. But with the new medicine, the medical officers and doctors at AP State AIDS Control Society are optimistic as the test results in a few children have shown 2 percent transmission. But they have to wait till the child is 18 months old to confirm the results. So far, those children who have crossed a year have been tested every three months, and the results have encouraging. (The New Indian Express, 2015).

- **New antibody attacks 99% of HIV strains:** Antibody that attacks 99% of HIV strains has been developed by scientists for the first time the "exciting breakthrough" could eventually lead to treatment, or even prevent transmission of the virus, with trials on humans due to get under way in 2018. Experiments on 24 monkeys injected with HIV showed none developed the virus after first being given the new type of antibody which attacks three critical parts of the disease. The human immune system struggles to deal with HIV or human immunodeficiency virus due to its ability to mutate and change appearance. Our bodies eventually become overwhelmed by the different strains of the virus. But around 1% of patients can develop "broadly neutralizing antibodies". These bind to structures on the surface of the pathogens known as "spikes". Spikes barely change and are identical, making it possible for these special antibodies to attack different mutations of the virus. Now scientists have managed to combine three of these flexible antibodies into a powerful "tri-specific antibody". An estimated 36.7 million people worldwide were living with HTV or AIDS at the end of 2015, with the majority in sub-Saharan Africa. In 2015 alone 1.1 million people died from the disease. The study was published in 'Science', and is collaboration between the US National Institutes of Health and pharma firm Sanofi. The research included contributions from experts at Harvard Medical School, the Scripps Research Institute and MIT (Denies, 2017).

Controls of the disease: Some measures have been suggested for protecting and preventing the AIDS and HIV infection. These are:

- Since sex with infected person is the highest risk factor in AIDS. The greatest need it's to educate people to have "safe sex" by using condoms and avoiding multiple sexual partners. This could be done through TV, Radio, newspapers, and other mass media, the required awareness can be produced through course content in the educational institutions too. ADIS advisory centers may also be established for imparting the required knowledge to the people. Seminars, symposia and workshops too can be organized from time to time to time for imparting the required knowledge.
- Some training is necessary for doctors and nurses so that they can impart some knowledge to the patients regarding the symptoms of HIV infection on AIDS.
- Persons suffering from sexually transmitted disease (STDs) are also a significant risk factor in HIV transmission. Through data are limited, there appears to be a high incidence of STDs among tribal poor, rural poor and urban-slum dwellers in India, And these conditions do provide a fertile ground for the spread of the virus. Reported rates of HIV infection among STD cases have triplicate from 1986-1996. Unlike AIDS. STDs can be treated. Hence programme for the prevention and control for STDs should prevention and control of STDs should be given high priority
- Blood or blood products must be tested for HIV before transfusion.
- The HIV tests should be made free and confidential for persons who indulge in the high risk activities or not and for persons who receive a transfusion of blood not properly screened for HIV infection.
- Doctors should ensure that injecting equipment is sterilized. As far as possible the use of disposable syringes should be encouraged.
- Condoms should be freely distributed or supplied at cheap rates in red-light areas to prostitutes.
- Drug-users should be persuaded to stay away from intravenous drug use.
- And lastly, voluntary organizations should help spread knowledge on AIDS to different vulnerable groups through innovative and community-based approaches counseling families. Individuals in neighborhood and the members of social support networks is also an important need because eventually they have to be a majority responsibility for the sick and the survivors.

Global HIV/ AIDS an over views: HIV, the virus that causes AIDS is one of the world's most serious health and development challenges. According to UNAIDS there were approximately 37.7 millions of people worldwide living with HIV/AIDS in the end of 2015. Currently 36.7% living with HIV/AIDS (July 2017). Currently only 60% of people with HIV knew their status. The remaining 40% (over 14 million people) still need to access HIV testing centres. As of (June 2016), 18.2 million people living with HIV were accessing



antiretroviral therapy (ART) globally up from 15.8 million in June 2015 UNAIDS has set global target to be reached by 2020 in the global response to HIV.

Scenario of Odisha: About 3300 new AIDS and HIV patients are identified in Odisha every year (July 2017) more than 15,00 hundred have been identified, 4 year back it was 13,218 official sources said the total number of AIDS and HIV patients has crossed 35,000 by now, but in official sources claim the number is over 80,000 in Ganjam followed by Cuttack with 4696 patients, Angul 1237, Balaswar 1119, Khordha 1705, Koraput 1927 and Sambalpur 1856, Boudh district has the least number of patient with only 34. Till date 1149 patients have died of the disease, as per the survey by an intentional NGO, deadly disease is no more confined among the migrant workers, gays, lesbians and sex workers as has been generally believed. The served has also said Odisha is among the five states there is every possibility of the easy spread the disease. The turn of the number of AIDS and HIV patients in Odisha presently ranks 14th in the country. In the state, 87% (29372) have been affected due to unsafe sex while 2138 have been inherited the disease from their parents i.e. by their HIV- positive mothers during pregnancy, birth of the child or breast feeding (OSACS, July, 2017).

II. RESEARCH METHODOLOGY

Objectives:

1. To study the socio-demographic profile of the adolescent respondents;
2. To assess knowledge pertaining to HIV/AIDS among adolescent girls,

Situational analysis of Ganjam District of Odisha State: Ganjam district tops the list of most HIV victims in the state of Odisha with 12,017 people: 35.9 percent of the total cases. Cuttack is second with 13.2 per cent victims, followed by Koraput with 5.1 per cent, Sambalpur with 5.1 and Khurda at number four with 4.7 percent of all HIV-infected people living in 30 districts, District AIDS Prevention and Control Unit (DAPCU, 2013). According to official reports, 3,427 AIDS patients were identified in Ganjam till November 2012. While Aska has highest number of AIDS patients of 456, Bhanjangan 349 and Chikiti the lowest 40.

Over 1,400 people have lost their lives due to AIDS in Ganjam district in the last 14 years as per the latest figures released by Odisha State AIDS Control Society (OSACS), the State-level nodal agency for fighting the dreaded disease. By the end of October, 2014, 12,307 persons in the district were identified as HIV positive while 1,404 persons succumbed to AIDS between 2000 and 2014. Besides, HIV tests were conducted on 5-59,425 persons during the period (DAPCU, 2013) and as per the reports of 'ARUNA', 2013 (a social service non-governmental voluntary organization) working for prevention of AIDS, majority of PLWHAS (People Living with HIV/AIDS) are from rural Ganjam. Large scale migration, ignorance, low female literacy, inadequate prevention activities, stigma and discrimination are the reasons behind the spread of AIDS.

III. RESEARCH DESIGN

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research work, popularly known as the "Research Design". A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. For this study the researcher has adopted exploratory study and the design adopted to carry out this research is the descriptive design. By using this design, the researcher attempts to describe female adolescents' knowledge and understanding i.e. problems and prevention and the impact of HIV/AIDS are described as reported by the respondents in a clear cut manner.

a. Universe of the study

The proposed investigation was carried out in the state of Odisha situated in the eastern part of India. It is basically an agricultural state and in spite of rise in levels of urbanization and industrialization, traditional and cultural values still exist.

Ganjam district alone contributes 38 percent of the state's PLHIV and 37 percent of AIDS deaths. Latest figures from Odisha State AIDS Society estimate HIV infections among 7637 people, of whom 281 are from ANC centers, and 531 are children, while AIDS related deaths are reported to be 461 till 2015. There is a huge proportion of males who migrate to Gujarat, Andhra Pradesh, Maharashtra, and Uttar Pradesh for work in shipyards, mills and diamond cutting industries, leaving behind their spouses/wives in Ganjam. Ten community health centers and 15 primary health centers are distributed across the district in different blocks. There are five

ART centers in the state of Odisha, including one at the M.K.C.G. Medical College in Berhampur, the district's major city, and another four link centers in the district recently introduced by the state AIDS society. Ganjam district has 26 functional individual counseling and testing centers (ICTCs) (Das 2012). Which was conservative, backward and more prevalence of HIV/AIDS district of the state had special significance in this study.

b. Sampling Procedure

There is a total no 22 blocks in Ganjam district among them 12 blocks have reported HIV/AIDS cases. Aska reported the most prevalence of HIV/AIDS. The researcher decided to study 2 blocks under the age group 13-17 years are available. They are Aska and Bhanjanagar. As per the latest reports, out of the 14 districts of the country most affected with the AIDS/HIV the Ganjam district is being placed eighth and has been graded 'A' status as more than one percent people of the total population are infected with HIV.

Considering the fact that these geographical areas are occupied by people with lower level of literacy and also living below poverty, the risk associated with HIV/AIDS infection to significantly higher these two blocks have been chosen for this present study. Aska is the highest no. and Bhanjanagar is the 2nd highest blocks in the district as the prevalence status. The universe of the study comprises all female adolescents between the age group of 13 -17 years. They are students admitted for education in IX, X, XI and XII in Govt. schools and +2 junior Colleges of Ganjam Dist. of Odisha state. There is a mix of students from tribal, rural, coastal villages, town or city; with a mixed culture components comprising this universe the names of Institutions and particulars of these universe and samples are clearly given in Table: 1

Table: 1- Distribution of Universe and Sample

Dist	Blocks	Schools/ Colleges	Universe	Percentage	Sample
Ganjam	Aska	Govt. Girl's High School	250	40%	100
		Niranjan Women's College	250	40%	100
	Bhanjanagar	Govt. Girl's High School	250	40%	100
		Sabitri Devi Women's College	250	40%	100
			1000		400

c. Tools and Techniques Used

Present study adopted multi method approaches to collect primary data from the respondents under study. Being an exploratory and fact finding study following tools were used for the purpose. Interview schedule, Primary data were collected with the help of detailed self structured interview schedule comprising both open ended and close ended questions that cover areas such as personal demographic profile, family demographic profile, knowledge about HIV/AIDS which containing abbreviation treatment and sources of information about HIV/AIDS etc and many more like: myths about HIV/AIDS, attitude towards HIV/AIDS and current practices towards HIV/AIDS. It contains 51 items of both quantitative and qualitative nature of questions.

IV. ANALYSIS OF DATA

All relevant collected data were tested and processed through the Statistical Package for Social Sciences (SPSS). Simple tables were made so as to make comparison between variables possible. Statistical tests such as t-test was applied so as to test the research hypothesis and thereby arrived at better conclusion. The analyzed data was presented in a scientific manner that gives better easy understanding to all concerned with this research.

Knowledge Regarding Treatment of HIV/AIDS Population: Knowledge regarding treatment of HIV/AIDS population, currently there is no way to get rid of entire viral load once a person is infected. However, new medicines called Antiretroviral Therapy (ART) can slow the damage that HIV causes to the immune system reduce the viral load and increase the longevity and improve the quality of life of the PLWHAs. Doctors are well informed now at treating the illnesses that are caused by HIV infection. Many people now consider HIV infection manageable, long-term illness (OSACS 2014). Adolescent girl's knowledge about treatment availability for HIV infected person is given in the table below.

Table No - 2: Knowledge regarding treatment of HIV/AIDS Population

Sl.No	Variables	Frequency (N=400)	Percentage (%)	't' Test
1	The Treatment Available for HIV Infected Person			
	Traditional	30	7.5	3.55*
	Allopathic Medicines	93	23.3	
	Chemotherapy	16	4.0	
	Antiretroviral therapy	63	15.8	
	• Right answer	63	15.8	
• Wrong answer	139	34.7		
	• No idea	198	49.5	

Note: * 0.01 level of significant

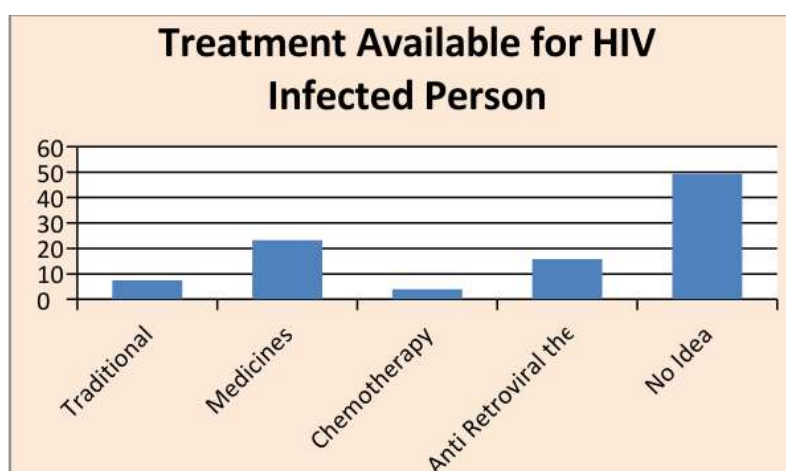


Fig. 2: Treatment available for HIV infected persons

It is observed from the above table that nearly half of the respondents (49.5%) reported that they did not have any idea about the availability of treatment for HIV infected person, while (23.3%) of the respondents reported that allopathic medicines are available to treat HIV infected person and only (15.8%) of the respondents had right knowledge and reported Antiretroviral Therapy as the treatment for HIV infected person. It seems knowledge about the treatment is very poor among the adolescent girls continuing their education in the Ganjam District, out of 400 samples only 63(15.8%) girls answered correctly whereas nearly half of the target group had no idea about the treatment. Some of them 7.5 want to adopt traditional method for the treatment for HIV, this reveals that a major proportion of the female adolescents do not have adequate knowledge about treatment available to treat a person infected by HIV.

V. CONCLUSION

The study revealed that knowledge about the treatment is very poor among the adolescent girls continuing their education in the Ganjam District, out of 400 samples only 63(15.8%) girls answered correctly whereas nearly half of the target group had no idea about the treatment. Some of them 7.5 want to adopt traditional method for the treatment for HIV, this reveals that a major proportion of the female adolescents do not have adequate knowledge about treatment available to treat a person infected by HIV.

VI. RECOMMODATIONS

Government should be single handedly committed to tackle the arrangements of strong and informative mass media campaign for care and treatment of HIV positive person should be advocated and undertake innovative sex education programmes for adolescent girls. To promote these systems, structure and personnel in health as well as non health sectors will be adequately reoriented and sensitized on social, biological, emotional and health risk of the young people on stigma, discrimination, gender violence, human rights etc.

Implimentation

According to the health and family welfare minister Atanu Sabyasachi Nayak, the State Government has taken a number of steps for the welfare of the AIDS and HIV patients but due to the fear of being ostracized and haltered by the society, the patient are unwilling to avail these programmes, (OSB, July 27, 2017).

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