



# OPEN ACCESS INTERNATIONAL JOURNAL OF SCIENCE & ENGINEERING

## THE DEMOGRAPHIC PROFILE OF ADOLESCENT'S IN THE MOST HIV/AIDS PREVALENCE DISTRICT OF (GANJAM) IN ODISHA, INDIA

Dr Jyotsnarani Panda

The Guest Faculty of the Department of Home Science, Rama Devi Women's University, Bhubaneswar (Odisha) India.  
jyotsnarani@ramadeviuniversity.ac.in

**Abstract:** 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, especially girls, mostly from disadvantaged communities and families, are trafficked for the purposes of early forced marriages, domestic workers commercial sex work and are forced to work in inhospitable, unsafe and exploitative conditions are the main components for development of HIV/AIDS. The present study was an attempt to assess need of knowledge based counseling among 13 to 17 year old adolescents adolescent girls who all were studying in class 9<sup>th</sup>,10<sup>th</sup>,11<sup>th</sup> and 12<sup>th</sup> in different high schools and women's collage's. 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: Out of 400 respondents 258 are from rural area and among the total respondents 62.3 per cent are belong to nuclear family. The majority of (86 per cent) are from local areas besides their parental status is very poor, as well as their educational status is very low only 13% parents have studied up to graduation and above. Conclusion and recommendations : The present study will help to focuses of adolescents level of knowledge to import for better life for better future because adolescents are the really dormant state of mind regarding HIV/AIDS the 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:** CeO<sub>2</sub> NPs; Monoethanolamine; XRD; FESEM.

### I INTRODUCTION

The period of adolescence is the second decade of life and it is a powerful formative period of transition from childhood to adulthood. It is a time of physical development, identity formation, relationship development and a time when vocational direction and life goals are expected to be formulated and to create a favorable environment for their implementation. It is also one of the most crucial periods in the life of an individual, because between the ages of 10-19 years, many key biological, social, economical, demographic and cultural events occur that set the stage for adult life. It is the period during which rapid physical growth, physiological and psychosocial changes occur. Adolescents are vulnerable

because they often do not know how serious the problem of HIV/AIDS is, how it is caused or what they can be done to protect themselves. Many adolescents do not even go to school, and do not have access to information about AIDS, or opportunities to develop the life skills that they need to turn this information into action. They also do not have access to services that take their specific needs into consideration.

#### 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 (July 2017).

#### **Global HIV/ AIDS an over view:-**

HIV, the view's that come AIDS is one of the world's most serious health and development challenges. According to UNAIDS, there were approximately 37.7 % million of people worldwide living with HIV/AIDS in the end of 2015. Currently 36.7 living in HIV/AIDS (July 2017). Currently only 60% of people with HIV knew their status. The remaining 40% (over 14 million people) still need to asses HIV testing centre. As of June 2016, 18.2 million people living with HIV were accessing anti retroviral therapy (ART) globally up from 15.8 million in June 2015 UNAIDS has get global target to be achieve by 2020 in the global response to HIV.

#### **State Scenario:-**

About 3300 new AIDS and HIV patients are indentified in Odisha every year (July 2017) more than 15,00 hundred have been indentified , 4year 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 Gajam (July 2017) as per the survey by as intentional NGO, deadly disease is no more confined among the migrant works, 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 14<sup>th</sup> in the country. In the stale, 87% (29372) have been affected due to unsafe sex while 2138 have been inherited the disease form their parents i.e by their HIV- positive mothers during pregnancy, child birth or breast feeding.

#### **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 per cent 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 per cent 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, Chikiti has the lowest 40. Similarly, 60 cases were identified in Chhatrapur, 63 in Ganjam, 204 in Khallikote, 120 in Beguniapada, 341 in Polsara, 138 in Purushottampur, 161 in Kavisuryanagar, 139 in Hinjilicut, 349 in rangeilunda, 53 in Kukudakhandi, 88 in Digapahandi, 124 in Sanakhemundi, 152 in Bhanjanagara, 206 in Belaguntha, 177 in Buguda, 44 in Jagannathprasad, 68 in Dharakote, 120 in Dorada and 173 in Sheragada (Odisha Post, 2013).

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.

#### **Methodology**

Objectives of the study

To study the socio-demographic profile of the adolescent respondents

## **II RESEARCH DESIGN**

A research design is the arrangement of conditions for collection and analysis of data in 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' demographic profile of the family members especially both parents i.e. Educational, occupational, status and family income along with the details of their belonging as well as their living styles.

**A) Universe's of the study:** There is a total no of 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 13-17years 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

**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 13-17years 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. Bhanjanagar is the neighbor block of Aska, it is also reported one of the prevalence block of Ganjam district is having 152 positive cases and hot spots are available. While the main Anti Retroviral Treatment (ART) centre is functioning at MKCG Medical College and Hospital here are four link centers at Aska, Bhanjanagar, Khallikote and Polasara. "The move will help in the regular check-up and treatment of these children at the ART centers" the (District Collector, Ganjam, 2011)

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 2<sup>nd</sup> 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 girl's high schools and +2 junior Colleges. 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

The total number of units in the universe of this study comprises 1000 female adolescents. The population is further stratified in to different strata constituting the schools to which this adolescent belongs. The size of the sample selected for this

study is 400. Hence to sum up, this study adopts the proportionate stratified random sampling design. Respondents are true representations of the female adolescent population. Therefore, the results of this study can be generalized to a larger population of female adolescents.

**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 and migration status of adolescents, both quantitative and qualitative nature of questions.

### III 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.

#### **The family demographic profile of the respondents:**

The demographic profile of the family reflects the general background of the sample in which she is living. Demographic variables also indicate the physical environment of the sample, which may has an influence on the knowledge, attitude and practices of the adolescents. The findings on family details were presented in table no 4.2 at that time

questions were asked to get the valid information about their family income which related to parents occupational and educational status. The area where she lives is an environmental influence especially on one’s behavior. The area of residence was classified as urban and rural. Type of families determines the autonomy and freedom of the members towards shaping the future of their children. Depending on the type of

the family the samples, responses were grouped under two main types as joint or nuclear family, and also the family details are important to know the background of the respondents which show the number of siblings of the family. In this section demographic profile of 400 experiment group is described in terms of their age, community and class of study as shown in table number. 2 and figure no. 1.

**Table No – 2: Family Demographic Profile of the Respondent**

Sr. No	Variables	Frequency (N=400)	Percentage (%)	t-test
<b>1.</b>	<b><u>Family Income</u></b>			
	Less than 10000	131	32.8	
	10001 to 20000	81	20.3	
	20001 to 30000	62	15.5	<b>4.63*</b>
	30001 to 40000	38	9.5	
	40001 to 50000	48	12.0	
	50001 and above	40	10.0	
<b>2</b>	<b><u>Parent’s Occupational Status</u></b>			
	Daily labours	106	26.5	
	Maid Servant	14	3.5	<b>2.67*</b>
	Small Business	196	49.0	
	Work in Govt.	84	21.0	
<b>3</b>	<b><u>Parent's Educational Status</u></b>			
	Illiterate	59	08.5	
	Primary	67	16.8	
	Secondary	83	20.8	<b>3.45*</b>
	HSC	165	41.3	
	Graduate	28	07.0	
	Above	23	05.8	
<b>4</b>	<b><u>Domicile</u></b>			
	Rural	258	64.5	<b>3.44*</b>
	Urban	142	35.5	
<b>5</b>	<b><u>Type of Family</u></b>			
	Joint Family	151	37.8	<b>4.08*</b>
	Nuclear Family	249	62.3	
<b>6</b>	<b><u>Number of Siblings</u></b>			
	One	24	6.0	
	Two	113	28.3	<b>3.83*</b>
	Three	143	35.8	
	Four	120	30.0	

Note \* 0.01 level of significant

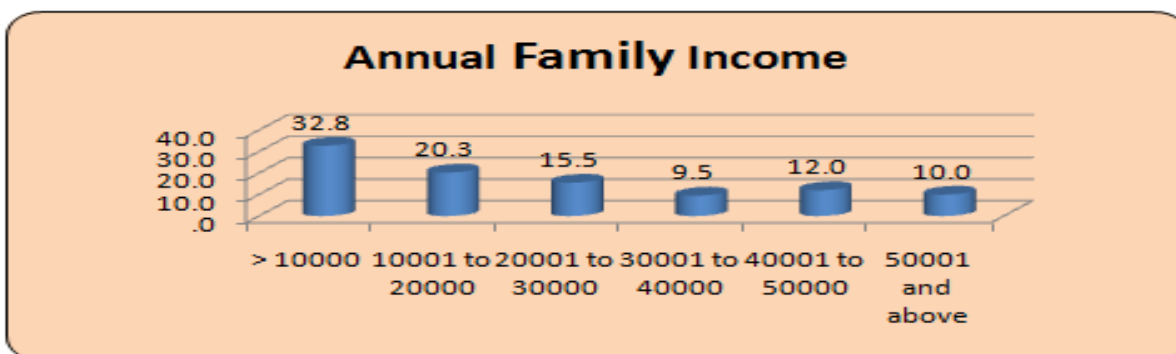


Figure 1: Showing distribution of respondents by their annual family income

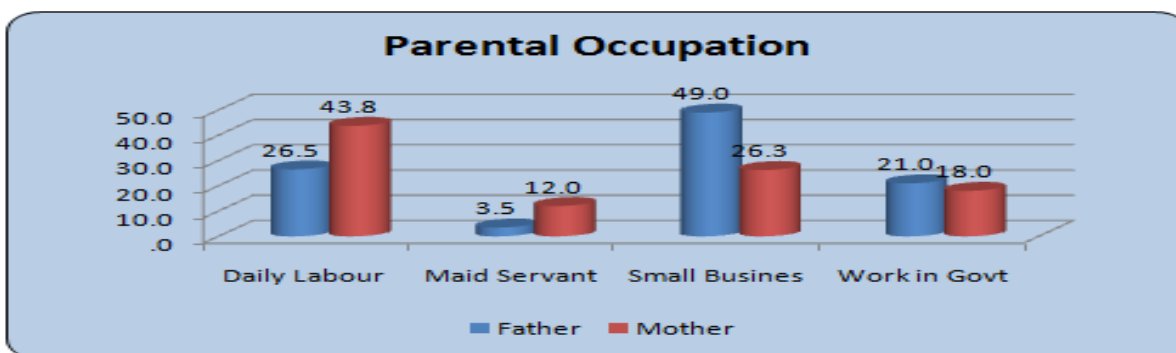


Figure 2: Distribution of respondents by their parent's occupation

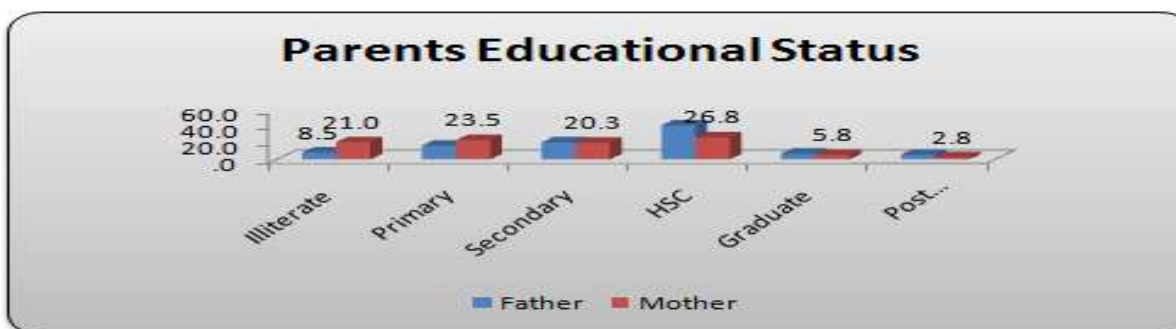


Figure 3: Distribution of respondents by their parent's education

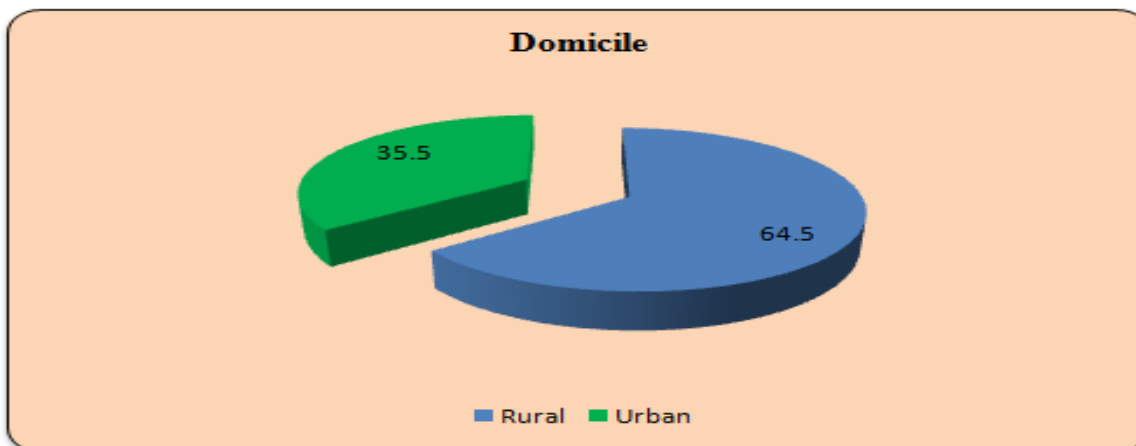


Figure 4: Distribution of the respondents by their domicile



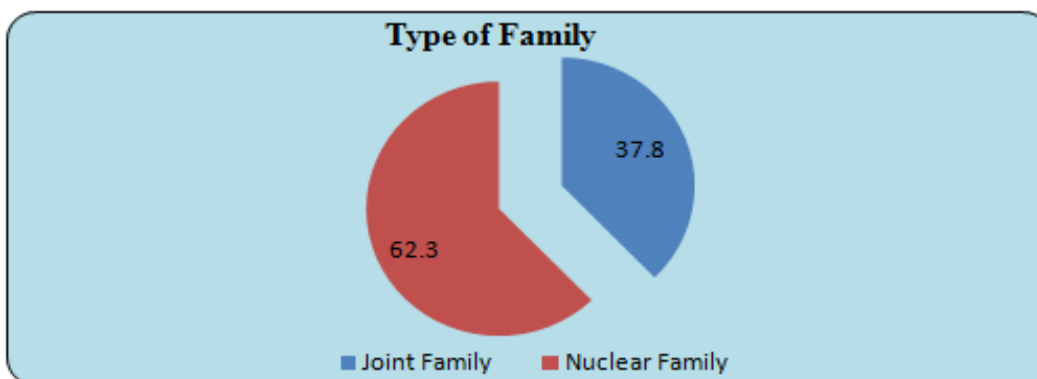


Figure 5: Distribution of respondents by their family type



Figure 6: Distribution of respondents by the number of siblings in their house

It is observed from the above table-2 and figure-1 that more than one fourth of the respondents (32.8%) come from families having an annual income as less than Rs. 10,000/-, while 20.3% of the respondents hail from the families whose income is between 10,001 to 20,000/- and only 9.5% of the respondents come from families whose annual income is between 30,001 to 40,000 this reveals that majority of the respondents come from families whose annual income is less than the poverty line. While the study of adolescents and their knowledge and attitude it is essential to understand the parents occupational status.

The above Fig no-2 reveals that nearly half of the respondents' fathers (49%) are engaged into small business while 26.5% of them are daily labours and 21% of them are working in Government Sector and only 3.5% of the fathers are engaged into maid servants. Among the mothers of the respondents while less than half of them 43.8% of the engaged into daily labour and little more than one fourth of the respondents 26.3% are engaged into small business and 18.% of mothers are engaged into Govt. jobs only 12% of mothers are engaged as maid servants.

Parent's Educational status as the independent variable is critically important as the study deals with adolescents.

It is seen from the above table no.2 that among the fathers of the respondents less than (44%) are educated up to Higher Secondary; while 21.0% of them stopped their education at SSLC level and only 2.8% have completed their graduation; 5.8% of the fathers are post graduates, where 8.5% of the fathers are illiterate. Among the mothers educational status shows a little more than one fourth (26.8%) are educated up to higher secondary; while 23.5% are educated up to primary and little less than one fourth of them are illiterate and only 2.8% of them are post graduates. This reveals that women reaching up to higher education from the families of these adolescents are less than their counterparts. Studies dealing with knowledge attitude of adolescents required to have knowledge about the domicile of the respondents. The respondents in this study are distributed between rural and urban domicile. It is observed that a majority of the respondents (64.5%) belong to rural domicile; while only 35.5% of them are form urban areas. This reveals that majority of the respondents come from areas where channels of communications for generating knowledge about HIV/AIDS is limited while the remaining respondents belong to the urban limit, where exposure to mass media is significant in generating knowledge among them.

Type of family plays a vital role in influencing the adolescents' knowledge, attitude and practices towards HIV/AIDS. It is observed from the table-4.5 that the respondents are distributed between nuclear and joint family system. Among the total respondents more than half of the respondents 62.3% are from nuclear family while 37.8% of the respondents are from joint family system. This reveals that the joint family system that prevails in our society is vanishing with the increase in nuclear family system. This may also be the impact of globalization. This can yield in increasing more myths as the parents may not allow much of their time to their children as they have to find for the family needs. Number of siblings in the family does have an impact on the adolescents' knowledge attitude and practices towards their sexuality. The below given chart describes the particulars about the number of siblings in the house of adolescents under study.

It is observed from the above table no-2 that 35.8 percent of the respondents are from families having three siblings, while 30 percent of the respondents are from families having four children and 28.3 percent of the respondents have two children as siblings and only 6 percent of the respondents have one child as sibling. This states that almost all the adolescents included in the study have one or more siblings in their home. Increased possibility for gaining more knowledge about HIV/AIDS, developing positive attitude towards sexuality can be available as all adolescents have siblings. Money earned by the family in a year through various sources like daily wages or kind, monthly salary, income from business, land property and other sources of income was considered as yearly income of the family.

#### IV CONCLUSION

Adolescents are an important part of the population, yet they are not properly addressed. Adolescents should not be isolated and sheltered from issues such as sexuality and reproductive health since they are at an age when they may begin experimenting and could be misguided and confused in their choices. The life of adolescents are at risk because society does not provide them with the information, skills, services and support they need to postpone sex until they physically and socially mature and able to make well-informed decisions about their sexual behavior. A young person with high self-esteem and good social skills, who is clear about his or her basic values, and has access to relevant information is more likely to make positive decisions about his or health and personal development. But these decisions are not taken on in a vacuum. External factors have a tremendous impact on how adolescents think and behave. These include: social environment, family, peer pressure, educational opportunities, career opportunities, social status, recreational activities and so on.

- A significant proportion of the rural adolescent girls do not have correct knowledge about HIV/AIDS. This can leads adolescent girls to increase myths, practice risky sexual behavior that can result with HIV/AIDS infection ultimately causing burden to their life and society.
- Sex is considered to be a taboo in the traditional rural society. The talk on sex in front of the elders is considered to be unethical and those who are engaged in such kind of discussion are seen as loose in their character and have corrupt morality. A large proportionate of the girls during the research work suggested that open discussion on human sexuality could become a great help to them in understanding STIs, RTIs, HIV/AIDS, etc. and prepare to prevent from these dreaded diseases.
- Most of the efforts, whether by the government or by voluntary organizations, are made to increase the level of awareness and knowledge. However, the issue of sexuality and reproductive health requires going beyond that. Most appropriate interventions at the educational institutes and community level should be designed to keeping in view the socio-cultural context.

#### V RECOMMODATIONS

A tool for creating a knowledge base for HIV/AIDS related services. The collaborative efforts of all models of media in association with NGO's state organizations, service providers have brought to the limelight, the availability and sources of beneficial services like counseling, testing and condom provision, treatment and social care. The broadcasters and print media have a specific role to play as their efforts have tremendous recall value.

#### REFERENCE

- [1] Bruce, Judith, and Amy Joyce, eds (2006). "The Girls Left Behind: The Failed Reach of Current Schooling, Child Health, Youth-serving, and Livelihoods Programs for Girls Living in the Path of HIV." New York: Population Council.
- [2] Indera Gandhi National Open University, (2011).Certificate in Adolescents Health Programme.
- [3] M Rajamanickam, (2006). "Psychological Perspective of HIV/AIDS.
- [4] M. Kurin, (2011). A handbook of co-education school essays, 2010.
- [5] Thomas Grecious, (2001). "Basic Facts of HIV/AIDS".
- [6] Arati Dhar, (2011). Half of HIV patents in Asia live in India. The Hindu, Thursday, December.
- [7] Aska – Ganjam – Souvenir; (2007). Centenary Celebration.

- [8] Health Action, Dec. 2014. Health Action, January and March 2011 Health Action, July, Sept., Oct., Dec.- 2012. Health Action, June 2010.
- [9] Hemalata et al., (2011).Prevalence of knowledge, attitude and practices towards HIV and sexually transmitted infections (STIS) among female sex workers (FSWS) in Andhra Pradesh. Indian Journal, Med. Res. 134, October, pp. 470-475.
- [10] Hrusikesh Mohanty, (2011). Little flowers and the big bad world, Times of India, Friday, Dec.
- [11] S. Prabakar and G. Ramathirtham, (2009). Adolescence and Sexual Risk Behaviour, International Research Journal of Social Sciences, Puducherry, Volume 2, No.1, pp.217
- [12] Puspaltha.C. and Sasikala,S. (2015) Counseling need among adolescent students. Indian J.Appl.Res.5(12):1-3
- [13] Satyasundarm, (2010).Curbing child abuse, Social welfare, January. Social Welfare: Vol. 56 No.10, April 2015. Social Welfare: Vol. 57 No.1, April 2010.
- [14] Kumar p Salil (2010) "A Study on adolescents Sexuality" Unpublished dissertation, Bardhasan Univesity Tamilnadu
- [15] Note on HIV Sentinel Surveillance and HIV Estimation (2008). NACO, Government of India.
- [16] Report from a study undertaken by the population council with support of the United Nations Development Program (UNDP) and in collaboration with the National AIDS Control Organization (NACO) (2011).
- [17] Satyasundarm, (2010).Curbing the child abuse, Social welfare, January.Social Welfare: Vol. 56 No.10, April 2010, Vol. 57 No.1, 2010, Vol. 57 No.5, 2015.
- [18] Tudu Parbati, (2014). 'Role of women's support centre in Bhanjanagar Tahsil of Ganjam district in Odisha', International Research Journal, Lab to Land, Vol-6, No.-22.
- [19] Note on HIV Sentinel Surveillance and HIV Estimation (2008). NACO, Government of India.
- [20] Report from a study undertaken by the population council with support of the United Nations Development Program (UNDP) and in collaboration with the National AIDS Control Organization (NACO) (2011).
- [21] Technical Report India HIV Estimates (2012) NACO & NIMS.
- [22] Technical Report on HIV Estimation, (2006). NACO, Government of India.
- [23] Tom Embru-Dennis (2017)"New antibody attacks 99% of HIV strain". The Times of India September 26, 2017
- [24] Joshi (2015) Indian adolescents living with HIV /AIDS scenario Vol. 65-July, 2017
- [25] Odisha Sun time Bareau (OSB) (2015) Gnjam Top
- [26] The journals of associate physicians of India vol-65 July 2017
- [27] Wwww.teemresoulutions.org http://ganjam.nic.in/  
www.unicef.org.india www.hivpositivecare.com www.hiv naturally.com