



## A Study to Assess the Knowledge Regarding HIV/AIDS among Adolescents in Selected Government Senior Secondary Schools of Udaipur City

1.1 **AUTHOR NAME:** 1) **Sumol.C.Abraham** & 2) **Dr. Jayalakshmi L.S.**

1.2 **AFFILIATION OF AUTHOR:**

1) Mrs.Sumol C Abraham, PhD Scholar Geetanjali college of Nursing,Udaipur (Raj.),  
E- Mail-sumolsherry@yahoo.co.in.

2) Dr. Jayalakshmi L.S. , Dean -Nursing , {Geetanjali college of Nursing,Udaipur (Raj.)}  
E- Mail –dr.jayalakshmilakshman@gmail.com

### 1.4 ABSTRACT:-

*HIV/AIDS is a serious health problem and its magnitude is increasing day by day. HIV/AIDS is spreading not only globally but is a major concern in India today. A total of about 33 million people are living globally with HIV/AIDS and 2.1 million are under the age of 15. India is second wave country in HIV/AIDS prevalence.*

*Adolescents comprise 1/5 of the total population of India. They are more vulnerable to STD and HIV/AIDS because of their greater biological susceptibility and act of experimentation. So the researcher felt the great need to conduct a study on assessing knowledge of adolescent students in school about HIV/AIDS who are the future pillar of our Nation. This evaluation can in turn result in finding of areas where adolescent lack knowledge and these areas can be emphasized in teaching the adolescents about HIV/AIDS. As is evident knowledge is power, enhancing knowledge of adolescents can result in a youth with modified knowledge and this can in turn be very help in combating HIV/AIDS greatly and reduce the burden of health sector by reducing number of patients in hospital for this disease.*

### 1.5 Keywords

AIDS: Acquired immuno deficiency syndrome;  
NACO: National AIDS control Organisation ;  
NACP : National AIDS control Programme ;  
YUVA : Youth United for Victory on AIDS ;  
WHO: World Health Organization;  
MDG:Millennium Development Goal;.

### 1.6 INTRODUCTION

**“AIDS attacks the body, Prejudice attacks the spirit, one is caused by a virus; the other is caused by ignorance. Both can kill”.**

**(New Zealand AIDS Foundation)**

HIV/AIDS is one of the deadly impacts of globalization, which is defined by Joseph Stiglitz as "...the removal of barriers to free trade, and a closer integration of national economies, it has a much wider sweep and also affects the political, cultural and social life of populations across the globe". The health sector is no exception. AIDS is a pandemic of unprecedented pervasiveness, spreading to the farthest corners of the world. Globalization is both midwives to the spread of the disease, because modern travel facilitates rapid dissemination of HIV infection across national borders, and, through concerted global action, globalization is also a triumphant conqueror over the devastating impact and expansion of AIDS

AIDS was identified as an emerging disease only in the early 1980's. It has rapidly established itself throughout the world, and is likely to endure and persist in 21st century. It was never thought that AIDS would become a public health problem one day.



## Brief note about AIDS:-

Acquired Immuno Deficiency Syndrome (AIDS) is a disease that gradually destroys the body's immune defense system and makes the body vulnerable to opportunistic diseases. It is caused by infection with the Human Immunodeficiency Virus (HIV). HIV/AIDS is mainly caused by unprotected sexual intercourse with HIV infected person, blood transfusion or contact with infected blood or blood products, reuse of contaminated syringes, needles, blades, equipment etc, and also from an infected mother to her foetus. After HIV invades the body, it lives and multiplies in the white blood cells, which are the cells that protect the body from disease. When HIV has destroyed enough white blood cells, the body is no longer able to fight off many infections, and a person begins to get sick. People who are infected with HIV can be asymptomatic, appearing and feeling well for ten years or even longer. As more and more white cells die, the HIV-infected person begins to get sick and is then said to be symptomatic. When there are very few white cells left, particularly of the kind called CD4+, and one or more serious diseases start occurring, the HIV-infected person has AIDS. Along with AIDS patients get infected with more opportunistic infections like tuberculosis, cancer etc. Till now there is no cure or vaccine developed for combating HIV/AIDS. The only treatment available is antiretroviral therapy for prolonging the life of a patient by relieving the symptoms only.

## GLOBAL SCENARIO OF HIV/AIDS:-

HIV/AIDS spread quickly in just two decades, and it has impacted the human life globally. According to recent statistics from UNAIDS-2008, a total of 33 million people now live with HIV/AIDS globally. 2.1 million of them are under the age of 15. Over the past 25 years, nearly 25 million people have died from AIDS. According to statistics of 2008, an estimated 2.7 million people were newly infected with HIV. 430,000 were under the age of 15. Every day more than 7,000 people contract HIV—more than 300 every hour. Out of the 2 million people who died in 2005 from AIDS, 280,000 were under the age of 15. HIV continues to be a major public problem in the SEAR countries with an estimate of 3.6 million people living with

HIV/AIDS. South East Asia is the second most affected region in the world.

**INDIAN SCENARIO:-**Although India's HIV/AIDS prevalence is second in the world (first being South Africa), India is considered to be a "next wave" country; that is, it stands at a critical point in its epidemic, with HIV poised to spread quickly. As the second most populous nation in the world that is approximately 1.03 billion, even a small increase in India's HIV/AIDS prevalence rate will represent a significant component of the world's HIV/AIDS burden. In India, an estimated 3 million people have AIDS, and it has been a major impact on the overall spread of HIV in South East Asia as well as globally and hence it needs immediate attention. The increasing magnitude of HIV/AIDS has complicated government's efforts to fight poverty, to improve health and to promote development. It has also strained the resources of community like hospitals, schools, social services and business. The situation is complicated by low levels of literacy and health-education for the community.

**RAJASTHAN SCENARIO:-**The scenario of HIV/AIDS prevalence is different in different states of India. Some states are high and some are low in prevalence of HIV/AIDS. Rajasthan is in the low prevalence states for HIV/AIDS. Although Rajasthan is among the low prevalence states where HIV in high risk group is < 5% and also less than 1% in ANC, Rajasthan has a large population of 56.4 million, and a huge floating population (especially because of numbers of in and out migration, having 19% of all mines in India, with 0.5 million miners). 25,000 trucks pass every day on NH 8; every third foreign tourist and every second domestic tourist wants to come to Rajasthan. Therefore, even a small HIV increase translates into a large problem in Rajasthan. **(HIV, sentinel surveillance 2007).**

**UDAIPUR SCENARIO:-**Among some of the cities of Rajasthan, Udaipur (the chosen site for this study) is a hot spots for HIV/AIDS, and it comes in category B District with less than 1% ANC/PTCT prevalence and more than 5% prevalence in any HRG group **(HIV, Sentinel Surveillance 2007-report)** due to low literacy level, low urbanization,



migrants, tourism, passing of National highway 8, and tribal belt of Rajasthan ( **HIV, sentinel surveillance 2007**).

### GOVERNMENTS EFFORTS TO FIGHT WITH AIDS:-

Shortly after the first AIDS case reported (1986), the Government of India established a National AIDS Control Programme (NACP) in 1987. NACP was managed by a small unit within the Ministry of Health and Family Welfare . The aim of NACP was to prevent further transmission of HIV, to decrease the morbidity associated with HIV, and to minimize the socio-economic impact of HIV infections. In 1991, the strategy was revised to focus on blood safety, prevention among high-risk populations, raising awareness in the general population, and improving surveillance. A semi-autonomous body, the National AIDS Control Organization (NACO), was established to implement this program. This “first phase” of the National AIDS Control Program lasted from 1992 to 1999. The second phase of the NACP began in 1999 and it lasted till March, 2006. Based on the lessons learnt and achievements made in Phase I and II, India has now developed the Third National AIDS Programme Implementation Plan (2006-2011). India is committed to achieving Millennium Development Goals (MDGs). Keeping this in view, the primary goal of NACP-III is to halt and reverse the epidemic in India over the next 5 years by integrating programmes for prevention, care, support and treatment. To increase the awareness among general people the Red Ribbon Express Project the world’s largest mass mobilization campaign on HIV/AIDS, was initiated. The train was flagged off on 1st December, 2007 (World AIDS Day) from Delhi. It halts at many stations and provides counseling and training. Other than this, there are some non-governmental organizations working on HIV/AIDS issues in India at the local, state, and national levels.

### IMPACT OF HIV/AIDS ON ADOLESCENTS:-

Approximately  $\frac{1}{5}$  of population of India comprises of adolescents. 200 million young people, in the age-group 10-24 years, are in India at present (WHO). Adolescents are vulnerable to sexually transmitted infections and HIV/AIDS because of their greater biological susceptibility, risky sexual behavior patterns (early initiation of sex, premarital

sex, bisexual orientation and multiple sexual partners), transmission dynamics and treatment-seeking behavior. NACO (2004) estimates that 87.7% of HIV infections are among youth, in the 15-44 year age group. This also reflects a global trend of increasing infections among younger people (Morris, 2003). World Health Organization (WHO) defines adolescence both in terms of age (spanning the ages between 10 and 19 years) and in terms of a phase of life marked by special attributes. These attributes include rapid physical growth and development, physical, social and psychological maturity (but not all at the same time), sexual maturity and sexual activity & experimentation. Sexual relations during adolescence are often unplanned and sporadic, and sometimes the result of seductive pressure, coercion or force. Adolescents often start sexual activity before they have experience and skills in self-protection, adequate information about HIV/AIDS and how to avoid contracting these infections, or access to preventive services and protective supplies (such as condoms). With the influence of Western culture, the present generation of youth is facing a number of problems that are ultimately forcing them to violate the traditional norms as laid down by the society. Right from the early puberty with the development of secondary sexual characteristics, interest in opposite sex develops. With easy availability & access to pornography, erotic magazines & even today’s movies, the desire to taste this forbidden fruit increases. According to a study 19% of young men and 9% of young women acknowledge the experience of a romantic partnership before marriage - **Youth in India: Situation and Needs 2006-2007**. Dr Hanjabam Barun Sharma studied that premarital sex is increasing at an alarming rate specially among adolescents. Meeting the sexual and reproductive health needs of the adolescents and young people leads to an improvement in the level of information and skills and reduces their vulnerability. So, to attain this, many programmes are being conducted at community level and school level to educate adolescents regarding HIV/AIDS. As most of the adolescent age group is found in schools the researcher felt to select adolescents from schools for the present study. Schools stand out as one of the important and most utilized settings to sensitise the adolescents and arming them with correct information about HIV and AIDS, along



with relevant information on sexuality and training on life skills and information about the availability of adolescent sexual and reproductive health (ASRH) services in the community.

**NEED OF THE STUDY:**-Despite 20 years of media saturation and government's efforts about the ongoing need to practice safe sex, adolescents continue to engage in behaviors that put them at risk for STIs including HIV/AIDS. More than half, of the 7,000 people newly infected each day, are under 25 years old (World Health Organization-WHO). Most young people have little access to health care services, or accurate information about reproduction and sexual health, or HIV/AIDS at the time in their lives when the vast majority is becoming sexually active. They are usually ill-equipped to deal with the growing risks of infection. This is coupled with a lot of misconceptions regarding HIV, which commonly exist among the youth. Lack of Sexual health education contributes to the health and psycho-social problems of the adolescents, because they are likely to be curious yet ill informed, bold yet vulnerable, and have numerous myths related to sexual anatomy and functioning. When Kakar and Choudhary (1970) examined some aspects of sexual behavior among young men prior to marriage, they found that a lack of adequate information and opportunities prompted these young people to turn to literature (often pornographic), to experimentation with prostitutes, friends, or relatives of the opposite or same sex, to cover observation of sexual activities of others, and to masturbation. They have to cross many "gatekeepers" before they can even express their needs -especially that are related to sexual and reproductive health, including HIV/AIDS. Furthermore, the reluctance on the part of parents and teachers to address the adolescent sexual health issues, and their own ignorance regarding the various myths, misconceptions about HIV and AIDS leaves them only to mainly rely on peers (who themselves may be poorly informed) and on the media to gain health related information. United nation states that despite strict parental supervision and norms discouraging inter-sex among unmarried, sexual relations are formed by about 15 to 30 per cent young men, and ten per cent young women in India. The objectives since the first phase of National AIDS Control Programme have been

aiming on prevention and education regarding HIV/AIDS. The sixth goal and seventh target of millennium development goal (MDG) is also halting and reversing the epidemic of HIV/AIDS till 2015. All the government strategies are also aiming to reduce the number of new cases of AIDS in the community by intersect oral collaboration efforts. In its unprecedented efforts to combat the dreaded disease, the government has launched an ambitious programme Youth United for Victory on AIDS, (YUVA). The five-year programme is aimed at creating awareness among people, particularly the young. The main feature of the programme is the involvement of Panchayati Raj institutions, volunteers from youth organizations, and NGOs. The target is to cover 50 per cent of young people by 2007, 65 per cent by 2008, 75 per cent by 2009 and 90 per cent by 2010. According to UNICEF, primary prevention among young people is the greatest hope to defeat the virus. UNICEF has been carrying out focused popular campaigns to raise awareness among the children and young people. Well-informed and empowered youth are capable of making healthy living changes, and can be motivated for healthy living. As health is vital for development and is also a fundamental human right, young person's must not only be equipped but also motivated to apply knowledge related to the protection and promotion of health. As a community health specialty nurse, the researcher after assessing the deadly impact of this disease on the young children decided to take the study to find out what is the level of awareness existing among them regarding HIV/AIDS, as this pandemic is also going to affect our quality of services because of overburdening of the health sector due to increased hospitalization of these patients. As is evident, prevention is better than cure and community health nurses are the main persons directly in contact with community. With this study, their role in educating the adolescents can be assessed and the areas where more strengthening is needed can be suggested. Thereafter, modifications can result in a Community with better knowledge as knowledge is power to fight against anything like HIV/AIDS. Moreover, this type of study will help policy-makers to give a fresh thought to a) the refinement of the existing strategies for educating adolescents, and b) preparing more in-depth programmers for



adolescents covering all the areas where the knowledge level of adolescents is not adequate.

## OBJECTIVES

1. To assess the level of knowledge regarding HIV/AIDS among adolescents in the selected Senior Secondary Schools.
2. To identify the association between knowledge and selected demographic variables.

## DELIMITATIONS OF THE STUDY:

The study is delimited to:-

- (i) Only 4 selected Government Schools of Udaipur City within 10 km range.
- (ii) Students of from classes IX<sup>th</sup> to XII<sup>th</sup> and in the age-group of 15 to 19.
- (iii) Students who were ready to participate in the study.

## CONCEPTUAL FRAME-WORK:

The conceptual frame-work for this study is based on Pender's model of health promotion<sup>1</sup> (redrawn from Pender NJ: health promotion in nursing practice.1996). Health promotion is directed at increasing a client level of well-being (Pender 1996). The model focuses on the following three areas:

- A. Client cognitive-perceptual factors (individual perceptions).
- B. Variables under study
- C. Health behaviors (likelihood of action).

The model also organizes cues to action to a pattern to explain the likelihood of clients developing health-promoting behaviors (Pender 1993, 1996). The focus of this model is to explain why individuals engage in health promotion activities.

## A. The cognitive perceptual factors:-

In the present study, importance and definition of health is considered as an adolescent student's knowledge regarding various aspects of HIV/AIDS, that is, general concept, spread and transmission, sign and symptoms, diagnosis and treatment, misconceptions and prevention.

## B. Variables under study:-

Age, gender, class, mothers education, father's education, mother's occupation, father's occupation, monthly income, type of family, AIDS awareness programme attended and sources of information.

## C. Health Behavior:-

Depends on internal and external cues: The desire to feel well; individualized health teaching, mass media health promotion campaigns.

In the present study, cues to action and likelihood of behavior include, family members, school teachers, community health nurse and the mass media.

The likelihood of action in the present study is that the adolescent students will engage in health promoting behavior such as good practices. It is determined by a combination of cognitive-perceptual factors such as adequate knowledge, which, intern are influenced by modifying factors. If there is an undesirable practice due to inadequate knowledge it needs primary level prevention strategies to enhance healthy practice and to engage in health promoting behavior.

## 1.7 METHODOLOGY AND TECHNIQUES USED:

### RESEARCH APPROACH

Descriptive survey approach was selected to collect the data in from selected schools.

### RESEARCH DESIGN



The research design selected for the study was descriptive survey.

## SETTING OF THE STUDY

The study was conducted in selected Government Senior Secondary Schools of Udaipur within 10 km radius of the City.

## POPULATION

The target population of the present study comprised of all adolescent students, both boys and girls from Class IX<sup>th</sup> to XII<sup>th</sup> of ages between 13 and 18 years.

## SAMPLING

The sample for the present study comprised of BSc Nursing students of classes III<sup>rd</sup> Year and IV<sup>th</sup> year from selected BSc Nursing Colleges of Udaipur City.

## SAMPLE SIZE

**Sample:** According to Polit & Hungler, the sample is a subject of a population selected to participate in a research study. The sample for the present study comprised of adolescent girls and boys aged between 15 and 19yrs.

**Sample Size:** - In the study, 200 adolescent students were selected as sample from the total population, to assess the knowledge regarding HIV/AIDS.

**Sampling Technique:** -In this study the convenient purposive random sampling was done for selection of schools.

## TOOL FOR THE STUDY

A structured questionnaire comprising of multiple choice questions was prepared by the researcher to assess the knowledge of the adolescent regarding HIV/AIDS in three phases:-

- Planning for tool development
- Establishment of content validity
- Establishment of reliability.

## STEPS FOR THE PREPARATION OF THE TOOL:-

A structured questionnaire was developed on the basis of objectives of the study, review of the literature on related studies, journals, and books; opinions from the experts and past professional experience. All these helped in the ultimate development of the tool.

## DESCRIPTION OF THE TOOL:-

### Organization of items:

The tool was divided into two parts:-

Part-1:- Demographic variables

Part-2:- Questions to assess the knowledge regarding HIV/AIDS.

### PART-1:-

This part comprises of 11 items to obtain the demographic variables of the respondents. It covered age, sex, class, type of family, mother's education, father's education, mother's occupation, father's occupation, monthly income, any health education programme attended previously, and sources of information related to HIV/AIDS.

### PART-2:-

This part consists of 40 items to assess the awareness and knowledge-level of students regarding HIV/AIDS. This questionnaire was divided into:-

- a) General concepts regarding HIV/AIDS.
- b) Spread and transmission of HIV/AIDS
- c) Sign and symptoms of HIV/AIDS
- d) Diagnosis and treatment
- e) Misconceptions
- f) Prevention

It contains structured multiple questionnaire. 4 options were given for each question. Only 1 answer was correct. Each correct answer was given one mark and incorrect responses were given a zero.



## Ethical Consideration:-

The ethical consideration was kept by the researcher during the study by :-

1. Getting Prior permission to conduct the study from concerned authority.

## DATA ANALYSIS:-

The Data was analyzed with the help of descriptive and inferential statistics based on the objectives of the study. Percentage, mean, median, and standard deviation would be used in descriptive statistics to describe the demographic variables and knowledge of the respondents. In inferential statistics, ANNOVA was used to test significance of mean differences of scores of groups selected as demographic variables, and T test was used to test the significance.

## DATA COLLECTION PROCESS

After necessary permissions from District Education Officer and Principals of the concerned schools, Data was collected according to convenience of the Principal, staff and students, so that there was no loss to the students. Every 3<sup>rd</sup> student sitting in class was selected randomly.

It was ascertained that both boys and girls were selected for the study. This researcher introduced herself, and established a rapport with the students. The objectives of the study, its purpose, and assurance for anonymity were explained to them. And after their verbal consent, the questionnaire was given to them. The students were also requested to give their free and frank opinions for the questions asked. The researcher herself was in the class and made sure that no problems occurred during data collection. It took 30 minutes for each respondent to fill the questionnaire. After this, the questionnaire was collected back.

## 1.8 CASE STUDY: - Nil

## 1.9 Results and Discussion

### Finding related to selected socio demographic variables of respondents:-

- ◇ Majority (47.50%) of the adolescent students were in age group of 15–16 years.

- ◇ Most of the respondents (56.00%) were males.
- ◇ Most of the respondents (27.50%) were from class (IX) (27.50%) and X (27.50%)
- ◇ Maximum respondents' (57%) were from joint families.
- ◇ Most of the respondents' mothers were illiterate (47%)
- ◇ Most of the respondents' fathers were educated up to secondary level (29%)
- ◇ Most of the respondents' mothers were house wife (88%).
- ◇ Most of the respondents' fathers were self employed (43.50%)
- ◇ Maximum respondents (48%) monthly family income was rupees 5,000/- per month.
- ◇ Most of the respondents never attended a workshop / seminar on HIV/AIDS.
- ◇ Maximum source of information utilized was electronic media (28%) and AIDS awareness programme (37.50%)

### Finding regarding overall knowledge result regarding ANC among B.Sc. students:-

- ◇ "Fair" level awareness (>50% - 75%) scores were obtained by 70.50% respondents.

### Finding regarding area wise knowledge scores regarding Antenatal care among B.Sc. nursing students

General Concept regarding Knowledge scores about general concept of HIV/AIDS

- ◇ "Fair" level of score was obtained by majority (59.50%) of respondents.



- ◇ Spread and Transmission: Maximum respondents (46.00%) had good level score (>75% 100%) regarding knowledge score about "Spread and transmission" of HIV/AIDS.
- ◇ Signs and Symptoms: Knowledge score related to signs and symptoms was found to be moderate among majority (38.00%).
- ◇ Diagnosis and Treatment:-Regarding diagnosis and treatment, majority of them had "moderate" knowledge (36.50%) scores.
- ◇ Prevention:-As far as preventive aspect is concerned the knowledge of respondents was "fair" among majority (42.50%) of them.
- ◇ There existed no significant relationship in case of: - Mother's educational qualification, Father's educational qualification, Mother's occupation, Father's occupation, Family income.
- ◇ There existed a significant relationship between knowledge scores and if any HIV/AIDS programme was attended or not .t = 2.612, df = 197.

### **Finding regarding association between selected socio demographic variables and knowledge level regarding HIV/AIDS among Adolescents students:-**

Findings related to relationship between knowledge scores and demographic variables:-

- ◇ There was a significant difference in the knowledge scores between students of different age group. So age has a relationship with the knowledge scores obtained.
- ◇ It was found that there was significant relationship between gender of the respondents and their knowledge scores.(t = 3.083, df = 198, P <0.01)
- ◇ There was significant relationship between the scores and class of the respondents' = 10.136, df = 3, 196, P <0.1
- ◇ There was significant relationship between the knowledge scores and type of family. t = 2.715, df = 198, P < 0.01

### **1.10 Conclusion and Recommendations**

In spite of great efforts to combat / fight HIV/AIDS are in force for educating the young people and community. The desired level has not been achieved till now. The findings indicate that the adolescents have only a "fair" knowledge regarding HIV/AIDS. This knowledge is not enough to combat a disease like HIV/AIDS because even one wrong step can lead to HIV/AIDS Adolescents are the future of the nations and if adolescents are educated and equipped fully with in-depth knowledge, they will certainly be equipped well in the fight against HIV/AIDS. So, more research studies are required to find out the lacunae and more in- depth studies can be designed. Inclusive education can be planned so that the desired level can be achieved to fight against the deadly disease. On the basis of the findings from this study, the following recommendations are given for future research:-

- (i) A similar study can be replicated on a large sample, so that findings can be generated for a large population.
- (ii) A comparative study can be conducted on the rural and urban areas of Udaipur.
- (iii) An experimental study can be conducted to find out the effectiveness of protocol regarding HIV/AIDS.
- (iv) A study can be replicated on the tribal belt of Udaipur region.

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