



**EVALUATION OF KNOWLEDGE, ATTITUDE AND PRACTICE OF SECONDARY  
SCHOOL STUDENTS TOWARDS HIV/AIDS IN KHARTOUM NORTH. SUDAN**

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**ABSTRACT**

Acquired Immune Deficiency Syndrome is one the pandemic diseases that increased the risk worldwide in the 21<sup>st</sup> century, because no medications for it, the transmission going in increased rates. By 2011, there were 33.3 million infected estimated globally and 2.6 million new HIV infections. In the North Africa and the Middle East, the number of estimated people infected by HIV was 460 000 at the end of 2009, up from 180 000 in 2001. A cross-sectional descriptive study was conducted to assess knowledge, attitudes and practices of secondary school students towards HIV/AIDS in Khartoum north locality. Khartoum North is one of the seven localities of Khartoum State. It is located between the Blue Nile on the south and the River Nile State on the North, with a total area of 4559.7 Km<sup>2</sup>. According to 2010 census the population of the locality is about 770943 citizens. There are 22 schools (17 female's schools and 5 male's schools). The main human activities of the population are workers and officers at public and private sectors and working in agriculture and animal production activities. 196 students were randomly selected for the study; the data were collected using structured questionnaire and interview. The data were analyzed using SPSS and frequent distributions measures. The result was presented in tables and figures, results showed that a large number of secondary school students has limited knowledge of HIV/AIDS, 54.1% of students know the symptoms and signs of HIV/AIDS, 45.9% student have negative attitudes towards AIDS and Only 2% of the students were voluntary tested for HIV/AIDS. The study concluded that all the respondents have poor knowledge, negative attitudes and practices concerning HIV/AIDS. The Ministry of Health has to adopt the most recent science and health education methods to promote health in these areas and to strengthening health education and use of active participatory approaches during the school sessions.

**KEYWORDS:** AIDS – Health\_ Education- Khartoum.

**INTRODUCTION**

Globally since the beginning of the HIV/AIDS epidemic, almost 70 million people have been infected with the HIV virus and about 35 million people have died of AIDS, 34.0 million [31.4–35.9 million] people were living with HIV at the end of 2011. An estimated 0.8% of adults aged 15-49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions. Sub-Saharan Africa remains most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and accounting for 69% of the people living with HIV worldwide.<sup>[2]</sup>

Worldwide, there are more than one billion people within the ages of 15–24 years, most of who live in developing countries. A need for independence is also one of the

features of this age-group, which sometimes may be associated with behaviors of rebelliousness, running away from home, giving up schooling, and even getting married without necessary preparation and parental consent.<sup>[2]</sup> More than 2 million adolescents between the ages of 10-19 years are living with HIV and may do not receive the care and support that they need to stay in good health and prevent transmission. In addition, million more adolescents are at risk of infection, the failure to support effective and acceptable HIV services for adolescents has resulted in a 50% increase in reported AIDS related death in this group compared with the 30% decline seen in the general population from 2005-2012.<sup>[3]</sup>

In Africa the first few reports of HIV/AIDS cases in the Region were received from Uganda, Tanzania and Rwanda in 1983. However, it was not until mid- to

late 1980s that most of the African countries began regular reporting of HIV/AIDS cases to WHO. Since then, the situation has changed dramatically over the years and today, there is no doubt that we are facing an epidemic of unprecedented proportions on the African continent.

Sub-Saharan Africa the total number of people living with HIV continues to rise. In 2011, that number reached 23.5 million [22.1 million–24.8 million], 69% of the global total. Around the world 5.4 million adolescents and young people between the ages of 10 and 24 are living with HIV.<sup>[4]</sup>

In Sudan the first case of HIV/AIDS reported in 1986. This was followed by two cases in 1987. In 2011 the overall estimated number of people living with HIV, 98,922 with 10,751 new HIV infections annually. The annual AIDS related deaths are estimated to be 8,034. As for the estimated number of people who are in need of Anti Retrovirus Treatment, it is 20,282 for adults and 6,144 for children while the number of mothers needing prevention of mother to child transmission is estimated at 5,095. According to the new estimate of 2011, the adult HIV prevalence of Sudan is 0.53%. The Spectrum also produced HIV estimates for FSW (3.16%) and MSM (3.64%) included in the Model as two key population groups.<sup>[5]</sup> The prevalence rate of AIDS in Khartoum state is .42%.<sup>[6]</sup>

The majority of infections in Sudan is transmitted through heterosexual contact. As sexual contact is the major route of transmission, adolescence is a period of interest and should be targeted regarding HIV/AIDS control. The youth constitutes the population aged 15–24 years. As a sociocultural phenomenon, this period is characterized as a stage in which one is confronted with role-models for emulating life in adulthood and with the major symbols and values of one's culture and community.<sup>[7]</sup>

### The main Objective

Is to assess knowledge, attitudes and practices of secondary school students in the Khartoum north locality towards HIV/AIDS infection.

### The specific objectives

- To determine the source of information about HIV/AIDS.
- To determine the knowledge of secondary school students in the Khartoum north locality, towards HIV/AIDS infection.
- To determine the attitudes of secondary school students in the Khartoum north locality, towards HIV/AIDS infection.
- To determine the practices of secondary school students in the Khartoum north locality, towards HIV/AIDS infection.

## METHODOLOGY

There are 22 secondary public school 17 female's schools and 5 males, the total number of students is 6563 (483 males and 6080 female students). A cross-sectional descriptive study was conducted in Khartoum North locality - Khartoum State- Sudan, targeting secondary school students.

### Sample size

The Total number of the students were 6563(483males and 6080females).196 students were selected as sample from 6563 students by using the following formula  $N = \frac{Z^2 pq}{e^2}$ . 182 of the participants was females and 14 were males from a total number of 22 schools (17 female's schools and 5 male's schools).

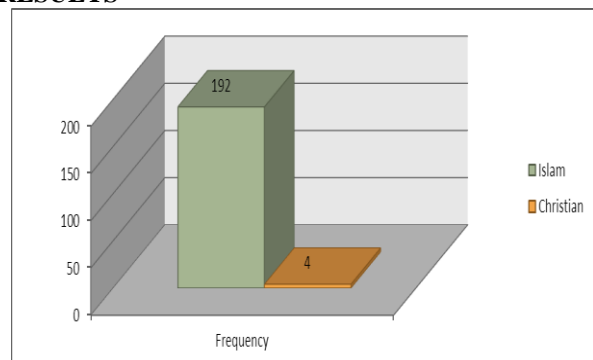
### Sample selection

A cluster sample technique was used to select schools from each Administrative Unit and selection of the students from each school is in proportional to the number of the students.

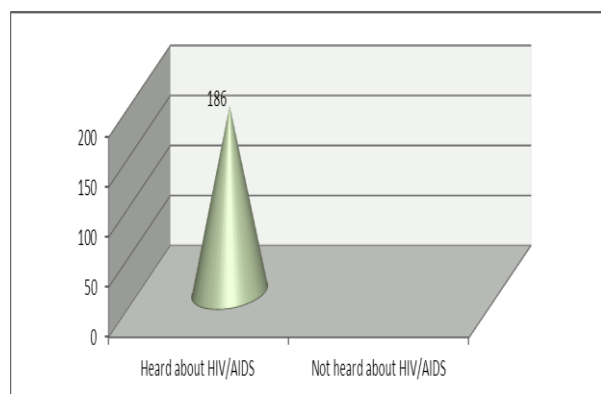
### Data collection, processing and analysis

Permission to proceed: consent was obtained from the Ministry of Education to conduct the research. Structured questionnaire and interviews are used as methods of collecting data. The collected data were analyzed by (SPSS).

## RESULTS



**Figure 1. Distribution of participants according to their religion. 98% of participants were Muslims.**



**Figure 2. Distribution of the participants according to their knowledge concerning HIV/AIDS 94.9% of participants heard about HIV/AIDS.**

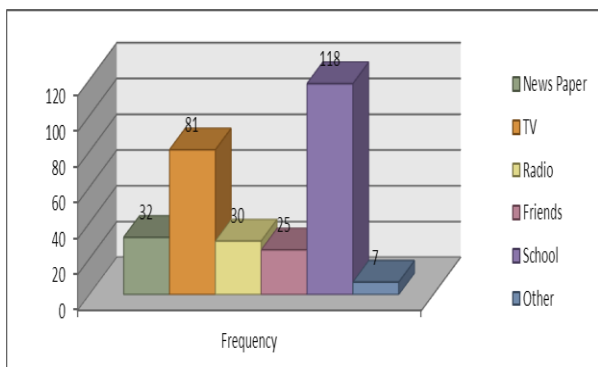


Figure 3. Show the sources of information about HIV/AIDS: 63% of participants heard about HIV/AIDS through school.

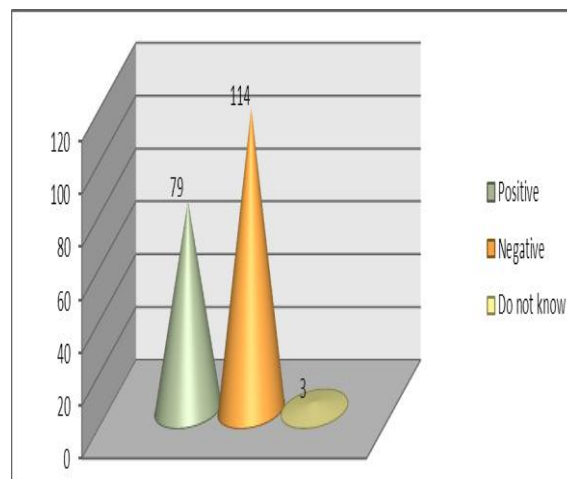


Figure 5: Showing attitudes towards their infected relatives concerning taking care of them. Only 46.9% participants are willing to take care of their infected relative.

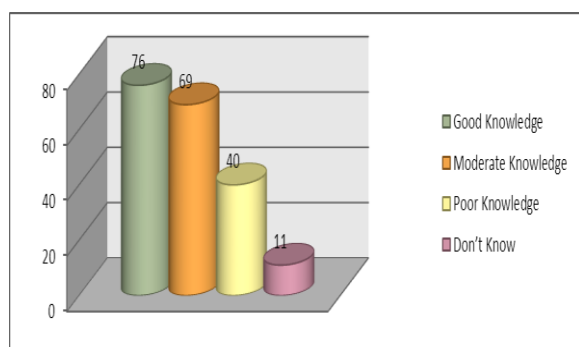


Figure 4. Distribution of the participants according to their knowledge concerning symptoms and signs of an AIDS patient: 54.1% of participants have good knowledge concerning the symptoms and signs of AIDS patients.

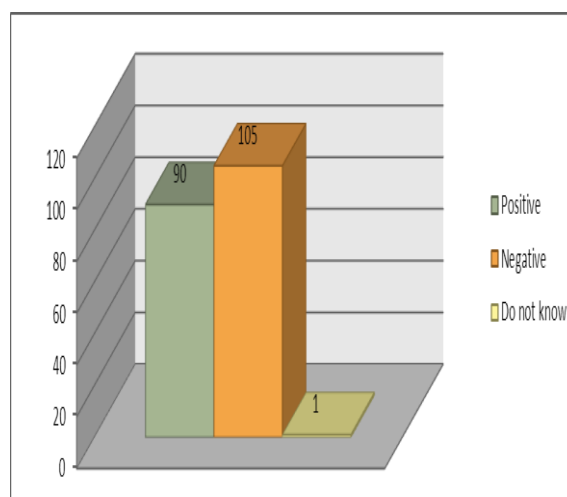


Figure 6: Showing attitudes towards their infected relative concerning willingness to eat with them Only 45.9% participants are willing to eat with an infected person.

Table: 1 Distribution of the participants according to their knowledge concerning the causes of AIDS.

Knowledge	Frequency	Percent
Good Knowledge	178	91
Poor Knowledge	13	6.6
I do not know	5	2.6

91% of participants have good knowledge concerning the causes of AIDS.

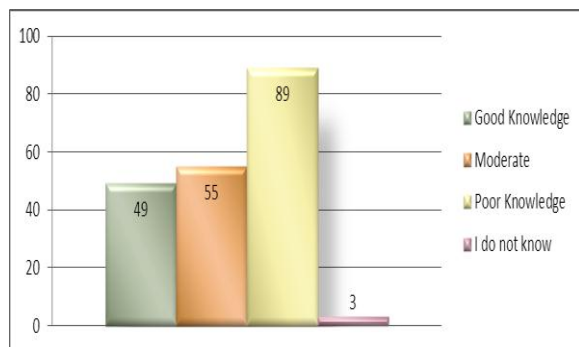


Figure: 4 Distribution of the participants according to their knowledge concerning the mode of AIDS transmission Only 49% of participants have good knowledge concerning the mode of AIDS transmission.

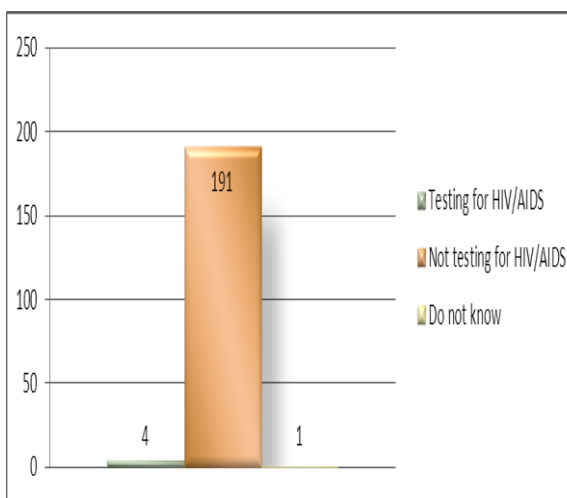
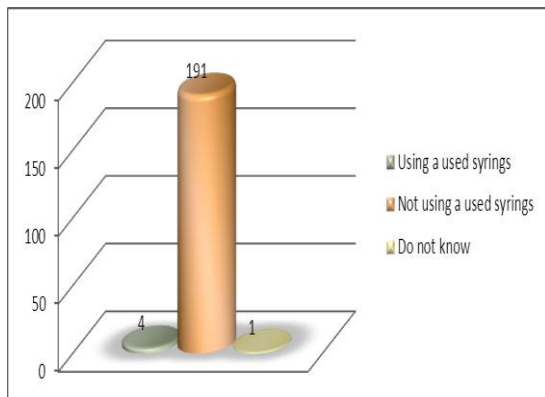
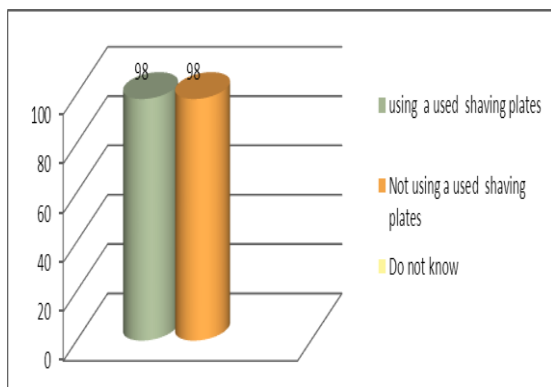


Figure.7 Showing the practice of testing for HIV Only 2% of the participants were tested for HIV.



**Figure.7 Showing the practice of sharing needles 2.0% of participants shared needles.**



**Figure. 8 Showing the practice of sharing shaving plates 50% of participants actually shared a shaving plate.**

## DISCUSSION

Regarding religion; the results showed strong correlation between religion and the knowledge of the student about AIDS. It is obvious that religion plays an effective role in shaping beliefs and behaviors. It plays an important role in changing people's behaviors. The study revealed that 73.5% of students heard about HIV/AIDS from television, as most of the young generation especially for this age group rely on TV as the major source for their information. This reflects the impact of media as a channel for dissemination and sharing of information about health related issues like HIV/AIDS. The result showed that 91% of the students have good knowledge about the cause of HIV/AIDS, 54.1% of students have moderate knowledge about the symptoms of HIV/AIDS this disagreed with the study that conducted among Al-Azahari University students in the same year, which showed vast difference among these two age group despite the fact that each of them grew up with different sources of information.<sup>[8]</sup> About 9.7% of students have a wrong knowledge about the mode of transmissions of HIV/AIDS, this result agreed with Sudan National AIDS Control Program report<sup>[9]</sup> which shows that there is wrong perceptions regarding HIV/AIDS transmission. Concerning the relationship between student's knowledge about AIDS and their attitudes towards infected persons from relatives, the results showed that there a positive correlation. The positive attitudes is due

to the sufficient information about the nature of AIDS and negative attitudes is due to the insufficient information about the nature of AIDS and lack of active discussion between teachers, students and their parents about health issues including HIV/AIDS. This leads to isolate a very important group of the community which may leads to social stigma and feelings of injustice and inequity. The results showed that only 2% of the respondents were tested for AIDS.

## CONCLUSION

There are many secondary schools students has a limited knowledge, negative attitude and poor practice which will not provide them with the needed scientific based backup regarding HIV/AIDS, which will lead to the stigma towards infected persons. This needs comprehensive interventions targeting this age group to enable them to adopt the best practices and behaviors, by integration between several stakeholders (Parents, Teachers, Ministry of Education, Ministry of Health, Media, Spiritual leaders, National and International NGOs and adopting updated scientific based interventions.

## Recommendations

- Comprehensive Information Education and Communication interventions towards students, teachers, community members, decision makers and religious leaders on HIV/AIDS.
- The Ministry of Education has to maintain special health education activities on HIV/AIDS for secondary schools students.
- The State Ministry of Health should introduce sexual and reproductive health services for secondary schools students.
- The Ministry of Education has to ensure there are teachers who are well trained and has enough knowledge about HIV/AIDS.

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