# Factors Associated With Knowledge on Spread of HIV/AIDS among Secondary School Students of Groupe Scolaire DE Rugando in Kigali

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## Abstract:

#### Introduction:

Youth are particularly vulnerable to HIV/AIDS due to the fact that they are not sufficiently prepared to address problems related to their sexuality and also because they do not have enough real knowledge about HIV and AIDS.

#### Objective:

This study intends to determine factors associated with knowledge on the spread of Human Immunodeficiency virus (HIV) among students of Groupe scolaire de Rugando in Kigali.

#### Methodology:

A cross sectional descriptive approach was used on a population of 950 students in secondary school of Groupe scolaire de Rugando, systematic sampling technique was used to randomly draw 102 students for the study. A pre- tested questionnaire was developed and translated; data was collected in one month and with a trained research assistant.

#### **Result:**

Finding showed that 78 (76.47%, with confidence interval (C.I.) of 67.04 - 84.31) of the students in the study accepted that HIV infection is transmitted by engaging in unprotected sexual intercourse with an infected person. Another proportion of the student about 65 (63.72% with C.I. 53.21 -73.02) accepted that risk of contracting HIV/AIDS increases by the presence of multiple sexual partners. About 69 students in the study (67.64% with C.I. of 57.66 - 76.58) accepted that regular use of condoms helps to reduce the risks of contracting HIV /AIDS, while about 72 students (70.59% with C.I. of 60.75 - 79.19) responses showed that the risks of HIV infections increases by the presence of other STIs. Additionally, 44 students (43.14% with C.I. of 33.37 - 53.32) indicated that they have already engaged in sexual relationship and about 58 students in the study (56.86% with C.I. of 46.68 - 68.63) responses showed that they do not need to use condom during sexual intercourse. Lastly, about 46 of the students (45.10% with C.I. of 35.22 – 55.26) perceived that having unprotected sex with partners proves that you love the partners.

Conclusively, students' knowledge considered satisfactory, while risky sexual behaviors and misconception towards condom use appear to be main problem. Improve awareness on the negative consequences of risk sexual behavior, increase access to condom, guidance and counseling services and sex education in schools...

There are 11.8 million HIV infected youth worldwide, African youth face fast growing rates of infection with HIV and STIS. In this region most new HIV infection occurs among people ages 15-24 and is sexually acquired. The high prevalence of HIV and AIDS occur amongst the youth due to risky sexual behaviors, poor attitudinal problems and unfriendly services for adolescents (United Nations, 2010).

Students who knew more about HIV transmission were less likely to report having had two or more sexual partners and more likely to report consistent condom use. Worldwide more women than men are infected (2.3% for males, 3.6% for females). HIV/AIDS prevalence is also higher among urban than rural populations 7.3% in urban and 2.2% in rural areas. (NISR, 2015).

In a study by Rwandan Bio-medical Center (RBC) found that small proportions of both females and males have sexual experience at an early age (Vedaste nyilimana., 2014). Kigali has the highest prevalence at 7.3% while all other provinces prevalence is below 3 % (DHS, 2010). This study should focus on promoting desired behavior among this age cohort because of the physiological changes that could drive them to engage in risk behavior for HIV.

The study Research questions was on what is the knowledge of HIV /AIDS spread among the students, what are the risky sexual behaviors towards HIV/AIDS among the students and What are the attitudes about risky sexual behaviors towards HIV/AIDS among students?

#### Methodology:

The research was conducted in school of Groupe Scolaire de Rugando. Is located in Kimihurura sector, Gasabo district in Kigali city (Rwanda), it is a mixed school and it has a big population of 950 students. A descriptive cross-sectional design using quantitative method was employed in this study to assess factors associated with knowledge on spread of HIV/AIDS among students.

The study dependent variable was the spread of HIV/AIDS among secondary school students of Groupe Scolaire Rugando. The study independent variables includes; Students' social demographic characteristics, Knowledge of secondary adolescents' students on HIV/AIDS, Attitudes about risky sexual behaviors, Risky sexual behaviors.

The target population for the study comprised of 950 students in secondary school of Groupe Scolaire de Rugando, The inclusion criteria; Upper classes students were included. Senior 4, 5, 6 were included and all the students that gave their consent to participate in the study while the lower classes students were excluded. Senior 1, 2, 3 were excluded and students who did not give their consent of participation.

Researcher used **Cochran's formula** to find out what sample of a population of 950 people you need to take. Researcher wanted a confidence level of 95 percent (which will give a margin error of 0.05); the target population was 180 students. Plugging data into the formula. In this study, researcher used a 95 percent confidence level with a population size of 950.

$$n = \frac{z^2 p q}{e^2}$$

Z standard deviation corresponding to 95 % (1.96)

P = proportion/whole population among youth q=100%-P (proportion in target population) and e as absolute precision power at 5%

Systematic sampling technique, using list of students in the different class levels in line with the school record. Simple random sampling was used for number 1 to 10 and 3 was chosen. So the interval of 3 students used to draw the study sample from the class list until the sample size of 108.

Level of the student that will participate in the study	Total sample drawn
Class four	35
Class five	33

Class six	34
Total	102

Relevant literatures were reviewed and opinions from the experts in the concerned field of HIV/AIDS research obtained. The questionnaires were independently pre-tested using 20 volunteer students by two different enumerators to assess their validity. After the pre-testing, views were exchanged to address the difficulties identified, appropriateness of the questions reviewed and appropriate changes made.

The introduction letter taken to the institution head and approval received and questionnaire was distributed among the consenting students and anonymity maintained. Data collection process lasted for 1 month and followed by data sorting, checking and return rate calculated. The results are presented in form of tables. Descriptive statistics were determined during data analysis. The right of selfdetermination to decide voluntarily to participate in study or to terminate their participation, the information provided remained private and confident

#### **Result and Discussion:**

Study findings depict a higher number of male student's respondents (59.8%) as compared to that of female (40.2%) students. This finding was found to be similar to that of Kenya where 58.8% were male, while 41.1% were female (Ndegwa I., 2008). All youth (99.9%) believe it is possible to avoid HIV infection. However, while 98.8% of respondents were aware that abstinence from sex was a prevention measure, only 57.9% reported use of condoms and 23.7% reported being faithful to one sexual partner as prevention measures.

Most respondents agreed curiosity or need to experiment is among the factors that lead them to do the sex. 45.1% strongly agreed this factor the similar to the study done in South Africa, where 49% who had engaged in early sexual intercourse in terms of experiment (Paul B., 2014). About 45.10% of students in the study felt that having unprotected sex with your partner proved love, this is similar to the study by (Oumar M., 2014) in Mali where about 60% of people feel powerless to negotiate safer sex.

In conclusion, the students in the study have good knowledge regarding factors predispose adolescents to HIV/AIDS, but still engage on risky sexual behaviors. The misconceptions towards condom use observed could be corrected by sex education, guidance and support for behavior change. Recommend reproductive health and sex education be given priority in schools. Engagement of youth in positive behaviors including athletics, sporting, music and talent hunt activities.

### **Extended Abstract**

## Table 4.1:

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Distribution of study participants with regards to knowledge of HIV/AIDS

	Items on HIV/AIDS Knowledge	YES	%	NO	%
А	A person can be infected with HIV/AIDS but not even know about it.	59	57.8	43	42.2
В	One can tell someone infected with HIV/AIDS virus by just looking at him or her.	12	11.8	90	88.2
С	A person who is sick with AIDS can infect others.	65	63.7	37	36.3
D	Risk of contracting HIV is increased by presence of other sexually transmitted diseases	72	70.6	30	29.4
Е	HIV is transmitted by engaging in unprotected sexual intercourse with an infected person	78	76.5	24	23.5
F	A person with many different sexual partners could beat risk of HIV infection	56	54.9	46	45.1
G	By reducing the number of sexual partners, one reduces chances of HIV infection.	55	53.9	47	46.1
Н	Regular use of condoms helps to reduce the risk of contracting HIV.	69	67.7	33	32.4

Table 4.2"

Distribution of study participants' perception of risk behaviours with regards to HIV/AIDS

Questions variables	Proportion	%	95% Confidence Interval				
Fears about your sexual partners when you consistently use a condom every time you have sex?							
You do not love him or her	25	24.51	(16.53 - 34.02)				
You are not trusted	28	27.45	(19.09 - 37.18)				
Does not enjoy sex	40	39.22	(29. 69 - 49.38)				
You have sexually transmitted disease	9	8.82	(04.11 - 16.09)				

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Have you ever suffered from a sexually transmitted infection?					
YES	8	7.84	(03.4.514.87)		
NO	94	92.16	(85.13 - 96.55)		
Have you ever used a condom?					
Used condom during sex	18	17.65	(10.8126.45)		
Did not use condom during Sex	26	25.49	(17.38 - 35.08)		
Did not need to use condom	58	56.86	(46.68 - 66.63)		
Perception of what people say about you when you abstain from sex					
Coward	52	50.98	40.89 - 61.01		
Infected with HIV infection	3	2.94	00.61 - 08.36		
Not Functioning sexually	7	6.86	02.80 - 13.63		
very much aware of the sexual abstinence	40	39.22	29.69 - 49.38		

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