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Students' Knowledge of HIV/AIDS and their Attitude towards Sexual Behaviour- A Comparative study of Form 1 and Form 4 secondary school students in Coast Region, Kenya

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Abstract
National AIDS Control Council and the Ministry of Education Science and Technology in Kenya developed the 2004 Education Sector Policy on HIV and AIDS. The policy was intended to reduce HIV/AIDS infection and stigmatisation of people living with HIV in the education sector. However, it is not known how implementation of the policy has affected students' knowledge and their attitude towards sexual behaviour in secondary schools in Coast Region of Kenya. The research study investigated the students' knowledge of HIV/AIDS and their attitude towards sexual behaviour in secondary schools in coast region of Kenya. The target population was 108693 respondents in 362 public secondary schools in the Coast Region of Kenya. Purposive and random sampling methods were used to choose the participants. The samples comprised of 388 students of which 193 were Form 1 and 195 were Form 4 students in 13 secondary schools. The validity of the questionnaires was checked experts at Chuka University. Test-retest method was used to compute reliability coefficient from the data collected from the pilot study. Reliability coefficient for the instruments was 0.8. The descriptive statistics used were frequencies and percentage. Chi-squire statistics was used to test the hypotheses in the study. The hypotheses testing were done at $\alpha = 0.05$ levels of significance and the analyses was done using SPSS computer programme version 20.0. The findings showed that there was a positive relationship between Form 1 and Form 4 students' knowledge of HIV/AIDS in secondary schools in Coast Region of Kenya. The study also revealed that there was negative relationship between Form 1 and Form 4 students' attitude towards sexual behaviour. It was recommended that secondary schools should enhance the teaching of HIV/AIDS\education in order to reduce HIV infection AIDS among secondary students in Coast region, Kenya.
Keywords: *Attitude, Knowledge, sexual behaviour.*

Introduction

The HIV and AIDS policy in Kenya was a result of the Dakar Framework for Action Education for All (DEFA). The policy was adopted from the international community during the world education forum in Dakar, Senegal in 2000 (UNESCO, 2000). This forum was preceded by the declaration of commitment on HIV and AIDS by the United Nation General Assembly Session (UNGASS), which set targets of reducing HIV and AIDS infection among 15-24 year olds. The declaration called for vastly expanded access to information and education on HIV and AIDS necessary to develop skills required to reduce vulnerability to HIV infection by the youth (United Nations Children Education Fund, UNICEF, 2009).

According to Ruto, *et al* (2009), under the guidance of National AIDS Control Council (NACC), the Ministry of Education Science and Technology (MoEST) in Kenya developed the 2004 Education Sector Policy on HIV and AIDS.

The policy spelt out provisions in eight areas that education must achieve that included; access to education for all children; access to relevant information; privacy and confidentiality; and gender responsiveness. The HIV/AIDS education include; providing education on the prevention methods of HIV infection, promoting abstinence and faithfulness, promoting reductions in the number of sexual partners; encouraging delays in the onset of sexual activity among adolescents, promoting the correct and consistent use of condoms, ensuring consistent availability of condoms, strengthening programmes in sexually transmitted diseases treatment and control, encouraging voluntary counselling and testing (GoK & UNICEF Kenya Country Office Study, 2000; GoK, 2012). The policy is also guided by the Constitution of the Republic of Kenya, Bill of Rights, Education Act, Teachers' Service Commission (TSC) Act and Code of Regulations among others (Republic of Kenya, 1999; Republic of Kenya, 2010; TSC, 2014). The HIV and AIDS policy if implemented has the ability to cut down HIV infection and effect among secondary students in Kenya.

Teachers are expected to play a major role in the provision of information on HIV and AIDS in order to promote awareness which results in behaviour change among students (Madzivanyika, 2013). Previous researches regarding students' knowledge of HIV/AIDS and sexual behaviour has had contradictory results. Fawole, Ogunkan and Adegoke (2011) reports that many students in Nigeria had high knowledge of HIV/AIDS but majority of them were involved in risky sexual behaviour. Youth in India were reported to be aware of the HIV and AIDS but a higher percentage of them were still engaged in risky sexual behaviour (Nath, 2009). According to Boyce, Doherty, Fortin and Mackinnon (2002), in Canada youth knowledge and risky sexual behaviour increased from one academic level to the next. In other research reports, educational intervention was reported to have had a positive impact on the students' knowledge of HIV/AIDS and their sexual behaviour (Selim & El-Shereef, 2010; Ndegwa, *et al.*, 2002). According to Bekeny (2009), secondary school students' knowledge, attitudes and behaviour in relation to HIV/AIDS improved after students were taught about HIV/AIDS.

Statement of the Problem

Human resource is a major factor in harnessing environmental conservation and renewable energy innovations for sustainable development (HECREISD). This is because educated population is required in achieving the objectives of HECREISD. However, the information in the media show that HIV and AIDS is threat to students who are looked upon to play important role in environment HECREISD objectives as role models and future implementers of HECREISD objectives. It is not known HIV/AIDS education affect secondary school students' knowledge of HIV/AIDS and their attitude towards sexual behaviour in Coast Region of Kenya. The present study compared students' knowledge of HIV/AIDS and Attitude towards sexual behaviour between F1 and F4 students in Coast Region, Kenya.

Objectives of the study

The study purposed to-

1. To find out if there is a difference between Form 1 students with knowledge of HIV/AIDS and Form 4 students with knowledge of HIV/AIDS among students in secondary schools in coast region, Kenya.
2. To find out if there is a difference between Form 1 students with positive attitude towards sexual behaviour and Form 4 students with positive attitude towards sexual behaviour among students in secondary schools in coast region, Kenya.

Research Hypotheses

The following null hypotheses were tested at $\alpha = 0.05$ level of significance;

$H0_1$: There is no significant relationship between Form 1 students with knowledge of HIV/AIDS and Form 4 students with knowledge of HIV/AIDS among students in secondary schools in coast region, Kenya.

$H0_2$: There is no significant relationship between Form 1 students with positive attitude towards sexual behaviour and Form 4 students with positive attitude towards sexual behaviour among students in secondary schools in coast region, Kenya

Methodology

The study adopted a descriptive survey research design. The target population was 108693 respondents in 362 public secondary schools in Coast Region, Kenya. The selection of schools was done using simple random sampling methods while selection of schools was done using simple random sampling methods. The samples comprised of 388 students of which 193 were Form 1 and 195 were Form 4 students in 13 secondary schools. Data was collected using questionnaires. The pilot study was carried out in three schools in Kilifi County within the Coast Region, Kenya. The test re-test method was used during the pilot study to obtain data that was used to compute reliability correlation coefficient. The questionnaire measuring attitude and the test measuring knowledge each yielded a reliability coefficient of 0.8. The research tool was developed and validated before use with help from other members from the Department of Education. The researcher obtained letter from Chuka University that was used to obtain permission to carry out the study from National Commission for Science, Technology and Innovation (NACOSTI). The data collected from the field was analyzed using frequencies, percentages and Chi-square statistics. The data in the study was analysed using statistical package for social sciences (SPSS) computer programme version 20.0. The result was presented using frequency, percentages distribution tables and bar graphs.

Results of the Study and Discussion

The study was set to compare Form 1 and Form 4 students' knowledge of HIV/AIDS and their attitudes towards sexual behaviour in secondary schools in the Coast Region of Kenya. Information was collected from 388 respondents and the data analysis generated the following results:

Students' Knowledge of HIV/AIDS

The hypothesis one sought to find out whether there was a significant relationship between F1 students' knowledge of HIV/AIDS and F4 students' knowledge of HIV/AIDS among students in secondary schools in Coast Region, Kenya. The researcher used data generated from previous research study to establish students' knowledge of HIV/AIDS (Thuo et al., 2016A & Thuo et al., 2016 B). Table 1 shows the summary of the findings.

Table 1 Students' Level of Knowledge on Sexual Behaviour

Statements	Form 1 n = 193				Form 4 n = 195			
	High		Low		High		Low	
	F	%	F	%	F	%	F	%
HIV only infect people	142	73.6	51	26.4	137	70.3	58	29.7
All people who are HIV positive got it through sexual intercourse	171	88.6	22	11.4	176	90.3	19	9.7
A person can get HIV and AIDS by sharing clothes, utensils with an infected person	136	70.5	57	29.5	142	72.8	53	27.2
A person can get HIV through bites from insects such as mosquitoes, lice, bedbug	27	14	166	86	172	88.2	23	11.8
People who are HIV positive are always sickly	119	61.7	74	38.3	114	58.5	81	41.5

Condoms do not protect a person from getting infected with HIV during sexual intercourse	105	54.4	88	45.6	123	63.1	72	36.9
Knowing your HIV status can't reduce the risk of HIV infection	134	69.4	59	30.6	158	81	37	19
Abstaining from sexual intercourse is the only method of reducing HIV infection	85	44	108	56	89	45.6	106	54.4
Being faithful to one sexual partner can't reduce the rate of HIV infection	110	57	83	43	122	62.6	73	37.4
Petroleum jelly is a good lubricant for condoms	117	60.6	76	39.4	114	58.9	81	41.1

Information captured in Table 1 showed that 45.6 % of Form 1 students and 36.9% of Form 4 students indicated that condoms do not protect people from getting infected with HIV. The information in Table 1 also revealed that 60.6% of Form 1 and 58.9% of Form 4 students knew that petroleum jelly was not a good lubricant for condoms. Majority (86%) of Form 1 students indicated that insect bites can transmit HIV compared to 11.8% of Form 4 students. In order to test the stated hypothesis, the data was analysed using descriptive statistics and Chi- square test. The results are shown in Figure 1 and Table 2.

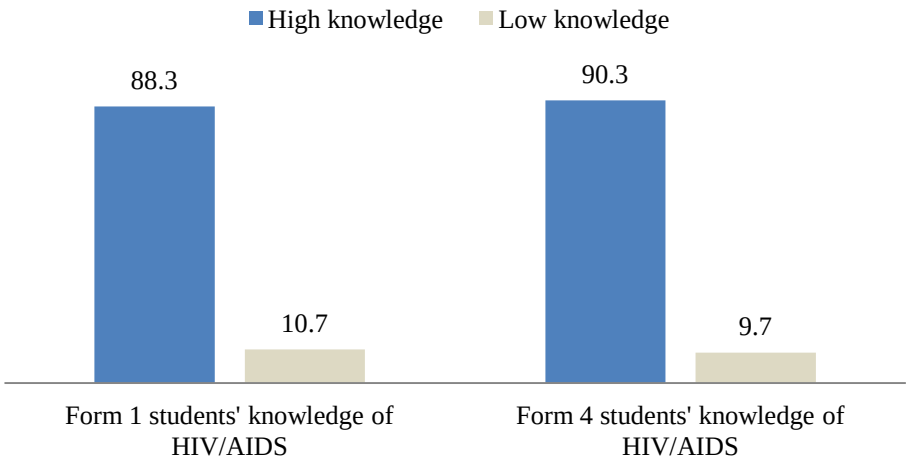

Fig 1: students' knowledge of HIV/AIDS

Figure 1 shows that 88.3% of Form 1 students had high knowledge of HIV/AIDS compared to 90.3% of Form 4 students with high knowledge of HIV/AIDS. To find out whether there was a significant relationship between Form 1 and Form 4 students' level of knowledge of HIV/AIDS, Chi-square test was performed. The findings are presented in Table 2.

Table 2 Chi-square test between Students' Knowledge of HIV/AIDS

	Form 1 students	Form 4 students
Chi-square	121.290	126.405
df	1	1
Asymp. Sig.	.000	.000

The results in Table 2 show that there is a significant relationship between Form 1 and Form 4 students' knowledge of HIV/AIDS (χ^2 = *121.290, df =1, p<0.05;* χ^2 = *126.405, df =1, p<0.05).* The Null hypothesis which stated that there is no significant relationship between Form1 students' knowledge of HIV/AIDS and Form 4 students' knowledge of HIV/AIDS was therefore rejected.

The findings of the research study are consistent with that of other researchers that showed that students in secondary schools have high level knowledge of HIV/AIDS (Bekeny, 2009; Madeline, *et al.*, 2011; Fawole, *et al.*, 2011). The results in Figure 1 for Form 1 students contradicted the findings of Majelantle *et al*

(2014). According to their findings, primary school level students were likely to have less knowledge about HIV and AIDS and also about HIV transmission and prevention in Botswana. In the present study, the Form 1 students had not benefited much from secondary school education and therefore most of their knowledge of HIV/AIDS could be have been obtained in primary school.

Students' Attitude towards Sexual Behaviour

The second Null hypothesis stated that there is no significant relationship between Form 1 students' attitude towards sexual behaviour and Form 4 students' attitude towards sexual behaviour among secondary schools in coast region. The researcher used data generated in previous research study to established students' attitude towards sexual behaviour (Thuo et al., 2016 & Thuo et al., 2016). The results are shown in Table 3.

Table 3 Students' Attitude towards Sexual Behaviour

Statements	Form One n = 193				Form Four n = 195			
	positive		negative		positive		negative	
	F	%	F	%	F	%	F	%
I feel that abstinence from sexual intercourse is possible in present time	119	61.7	74	38.3	103	53	92	47
I feel that students should be encouraged to have only one sexual partner	144	74.6	49	25.4	69	35	126	55
I feel that peers (friends) influence is not important when it comes to engagement in sexual intercourse	69	35.8	124	64.2	84	43	111	57
I feel that cheating on each other sexually is normal these days	50	25.9	143	74.1	32	16	163	84
I feel that it is easy for a person to have only one sexual partner throughout his/her life	106	54.9	87	45.1	90	46	105	54
I feel that it is okay having more than one sexual partner as long as you are faithful to them	130	67.4	63	32.6	45	23	150	77
I feel that sexual intercourse where condom is involved is no sex	117	60.6	76	39.4	84	43	111	57
I feel that married people should also be encouraged to use condoms when having sexual intercourse	59	30.6	134	69.4	41	21	154	79
I would use or ask my partner to use a condom when having sexual intercourse	100	51.8	93	48.2	92	47	104	53
It is my feeling that all people regardless of whether they are sexually active or not should go for VCT	133	68.9	60	31.1	149	76	46	24
It is my feeling that People who know their HIV status suffer more than those who don't know their status	116	60.1	77	39.9	76	39	119	61
It is my feeling that information about people who are HIV positive is likely to leak from VCT centres	76	39.4	117	60.6	106	54	89	46

The results in Table 3 showed that 64.2% of Form 1 and 57% of Form 4 students believed that peer influence played an important role when students engage in sexual intercourse, 45.1 % of Form 1 students and 54% of Form 4 students felt that it was not easy for a person to have only one sexual partner throughout his/her life. The findings in this study were consistent with findings of Chinsembu *et al* (2004) which indicated that a high percentage of adolescents reported having had sexual intercourse and a significant percentage reported having had sexual intercourse with more than one sexual partner in Namibia.

The results in Table 4 also showed that 68.9% of Form 1 and 76% of Form 4 students believed that it was important for everybody to be tested for HIV. Another 76% of Form 1 and 54% of Form 4 students believed that there was confidentiality in VCT centres. These results are consistent with the findings by Abebe and Mitikie (2009) which showed that a high percentage of students had positive attitudes towards VCT in Ethiopia. However, in the present study, the percentage of students with confidence in VCT declined as students moved from one education level to the next in secondary schools. In order to test the

stated hypothesis, the collected data was analysed using descriptive statistics and Chi-square test. . The results are shown in Figure 2 and Table 4.

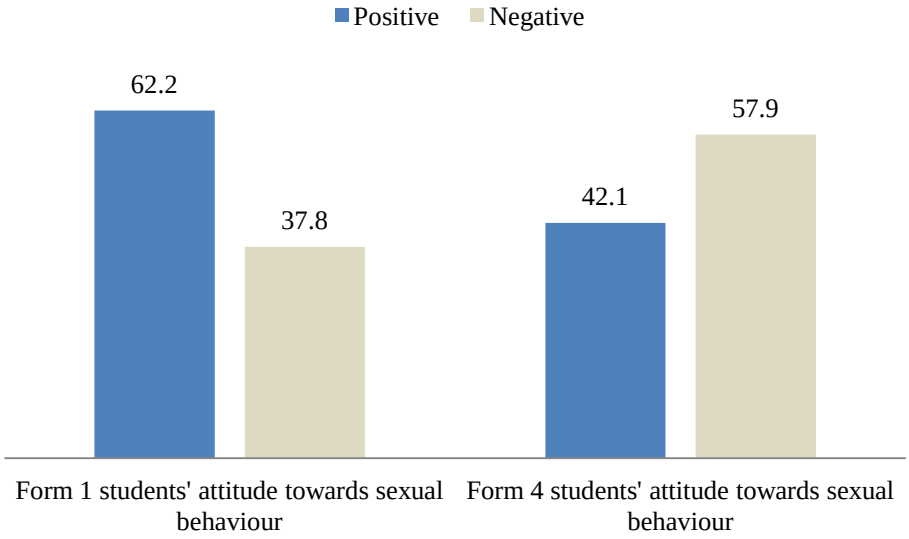

Figure 2: Students' attitude towards sexual behaviour

Figure 2 shows that 62.2% of Form 1 students compared to 42.1% of Form 4 students had a positive attitude towards sexual behaviour. Chi-square test was done to test the stated hypothesis and the results are shown in Table 4.

Table 4 Chi-square Test between Students' Attitudes towards Sexual Behaviour

	Form 1 students' attitude	Form 4 students' attitude
Chi-square	11.446	4 .928
df	1	1
Asymp. Sig.	.001	.026

The results in Table 4 showed that there is a significant relationship between Form 1 students and Form 4 students attitude towards sexual behaviour among secondary schools in Coast Region of Kenya *(χ^2 = 11.446, df =1, p<0.05; χ^2 = 4.928, df =1, p<0.5).* The null hypothesis which stated that there is no significant relationship between Form 1 students' attitude towards sexual behaviour and Form 4 students' attitude towards sexual behaviour among secondary school students in Coast Region of Kenya was rejected.

Information in Figure 2 and in Table 4 showed that the relationship between Form 1 students and Form 4 students' attitude towards sexual behaviour was a negative relationship. The percentage of students with negative attitude towards sexual behaviour increased as students moved from one academic level to the next. The findings are consistent to that of Boyce *et al (2002)* that revealed that in Canada youth knowledge and risky sexual behaviour increased from one academic level to the next. Fawole *et al (2011)* also reported that many students in Nigeria had high knowledge of HIV/AIDS but majority of them were involved in risky sexual behaviour. However, Fawole *et al (2011)* findings are inconsistent with results of Form 1 students in this research because majority of Form 1 students (88.3) had high knowledge of HIV/AIDS and majority of them (62.2) had positive attitude towards sexual behaviour.

To shed more light on the relationship between Form 1 and Form 4 students' attitude towards sexual behaviour the

respondents were requested to indicate whether they had ever visited VCT. The data obtained is summarised in Table 5.

Table 5 Students' Response VCT

	Form 1 Students Visited VCT		Form 4 Students Visited VCT	
	F	%	F	%
Yes	89	46.1	96	49.2
No	86	44.6	78	40
Confidential	18	9.3	21	10.8
Total	**193**	**100**	**195**	**100**

Results in Table 5 revealed that 46.1% of Form 1 students and 49.2% of Form 4 students had visited VCT. Thus despite the fact that more Form 1 students had positive attitude towards sexual behaviour compared to Form 4, approximately the percentage of those who had visited VCT for Form 1 and Form 4 was equal. Information from Table 5 also showed that 9.3% of Form 1 and 10.8% of Form 4 students felt that information sought by the researcher was confidential. The respondents were also requested to indicate if they would disclose their status to the school community if they were HIV positive. Figure 3 shows the summary of the participants' responses.

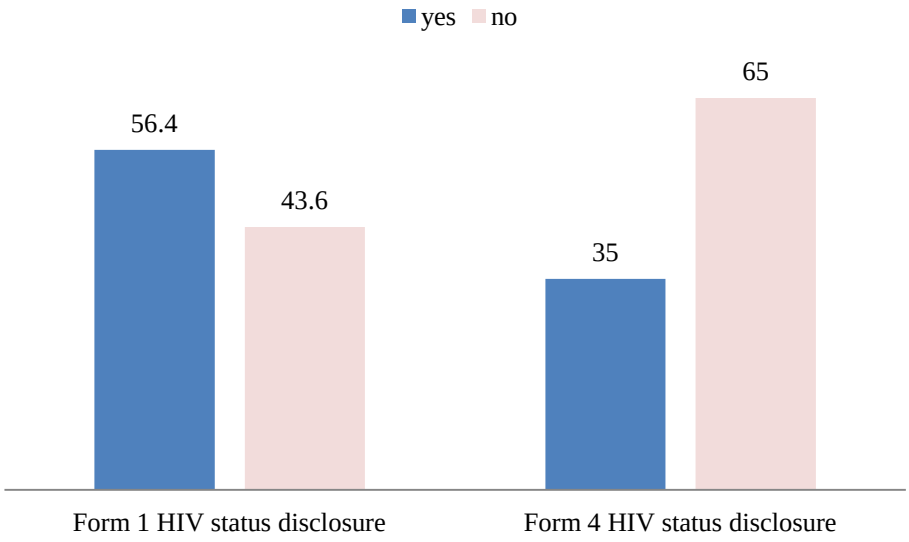

Figure 3: Students HIV status disclosure

The results in Figure 3 showed that 56.4% of Form 1 students compared to 35% Form 4 students would disclose their HIV status if they were HIV positive. The finding further confirmed that as students progressed from Form 1 to Form 4 their sexual behaviour deteriorates and their confidence towards VCT become low. According to Ngotho (2005), most students shun HIV test primarily because of the fear of knowing their status and the stigma associated with being HIV positive in Kenya.

Conclusion and Recommendation

The findings of the research study showed that there is a positive relationship between Form 1 students' knowledge of HVI/AIDS and Form 4 students' knowledge of HVI/AIDS among secondary school students in Coast Region of Kenya. The HIV/AIDS and life skill education equip pupils and students with appropriate knowledge and secondary school education should strive to maintain this high standard of HIV/AIDS knowledge. The study however, revealed that there was a negative relationship between Form 1 students' attitude towards sexual behaviour and Form 4 students' attitude towards sexual behaviour. The percentage of Form 1 students with positive attitude towards sexual behaviour was higher than that of Form 4 students with positive attitude towards sexual behaviour. According to Thuo (2016), education in Kenyan secondary schools is geared towards passing of examination and this neglected holistic development of students through education. The pressure to perform could therefore have resulted in students cramming knowledge on HIV/AIDS to pass examination and this explain why there was high percent of Form 4 students with high knowledge of HIV/AIDS but with negative attitude towards sexual behaviour. The HIV/AIDS and life skill education in secondary schools should therefore emphasis more on behaviour change than in impacting knowledge of HIV/AIDS.

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