

**RELATIONSHIP BETWEEN TEACHERS' KNOWLEDGE EFFICACY IN HIV/AIDS
AND STUDENTS' KNOWLEDGE AND ATTITUDE TOWARDS SEXUAL
BEHAVIOUR IN SECONDARY SCHOOLS
IN COAST REGION, KENYA**

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ABSTRACT

Teachers' knowledge efficacy in HIV/AIDS plays an important role in curbing the spread of HIV and AIDS among the youth through education. The purpose of the study was to determine the relationship between teachers' knowledge efficacy in HIV and AIDS and students' knowledge and attitude towards sexual behaviour in secondary schools in the Coast Region of Kenya. The study used descriptive survey research design. The target population was 112013 respondents in 362 public secondary schools in the Coast Region of Kenya. Proportional, purposive and random sampling methods were used to choose the participants. The samples comprised 417 respondents of which 29 were teachers and 388 students in 13 secondary schools. Questionnaires were used to collect the data. The validity of the instruments was checked by the supervisors and other experts in the field of research. The instruments were piloted in three secondary schools in Kilifi County within the Coast Region of Kenya to establish their reliability. Test-retest method was used to compute reliability coefficient from the data collected from the pilot study. Reliability coefficients were 0.8 for both teachers and students' questionnaires. Both descriptive and inferential statistics were used in data analysis. The descriptive statistics that were used were frequencies and percentage. Chi-square statistics was used to test the hypotheses in the study. The hypotheses testing was done at $\alpha = 0.05$ level of significance. The data collected in this study was analysed using Statistical Package for Social Sciences (SPSS) computer programme version 20.0. The findings showed the relationship between teachers' knowledge efficacy in HIV/AIDS and students' knowledge and attitudes towards sexual behaviour. The study also revealed that majority of Form 4 students had negative attitude towards sexual behaviour and that both teachers and students had high knowledge of HIV and AIDS. The study recommends that the Teachers Service Commission should employ teachers who can teach HIV/AIDS education and life skills education in secondary schools.

Key Words: Knowledge efficacy, students' Knowledge, Students' sexual behaviour

1. Introduction

An estimated 38 million people worldwide are living with HIV and AIDS, two thirds of these are in Sub-Saharan Africa (UNAIDS, 2001; Global Report, 2010). The majority of the people infected with HIV and AIDS in Kenya fall in the age bracket of 15-24 years (Murra & Kiarie, 2001; UNICEF, 2009). These are among the school-going age category and the education sector has not been spared either; many AIDS orphaned children have had to drop out of school either due to lack of school fees or to fend for their families (Cohen & Trussels, 1996).

Whiteside and Sunter (2000) argued that a lot can be done to curb the spread of HIV and AIDS through education. However, for education to be effective, it must begin before young people are initiated into sexual activity (UNESCO, 2011). Merck Foundation and Overseas Development Institute (2006) report showed that, in Kenya, teachers were expected to pass HIV and AIDS messages through their regular subjects using the implementation guidelines provided by the two syllabi; one provided by the Ministry of Education (MoE) and the other syllabus provided by the Kenya Institute of Education (KIE). The KIE syllabus has infused and integrated HIV and AIDS content in the regular subjects. Teachers have been left with the responsibility of interpreting the MoE syllabus and deciding how much to integrate and the areas that needed infusing during classroom lessons. The successful implementation of this approach, however, presupposed adequate preparation in terms of teacher capacity development, child responsive pedagogy and development of appropriate learning materials. However, according to Ruto, Chege and Wawire (2009), many teachers in Kenya shunned the teaching of HIV/AIDS education, mainly because they perceived themselves as incompetent in the subject. Mithamo (2005) noted that implementation of HIV and AIDS curriculum has not been successful due to lack of training of teachers and unavailability of relevant HIV and AIDS teaching and learning materials. This research investigated teachers' knowledge efficacy in HIV and AIDS.

Teachers' training is an essential component in the development of high level of knowledge efficacy in HIV and AIDS. It involves acquiring of the necessary content and skill in teaching (Bandura, 1994). 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). The teachers' knowledge efficacy in HIV/AIDS influences how they perform this role. However, despite the many interventions that have been put in place which

included HIV/AIDS education, the Coast Region of Kenya has a high prevalence rate of HIV infection (NACC, 2010; MoH, 2014). Thus there was need to assess the relationship between teachers' knowledge efficacy in HIV/AIDS and students' knowledge and attitude towards sexual behaviour in secondary schools in the Coast Region of Kenya. This is the gap the research study is intended to fill.

2. Objectives of the Study

The objective of this study was investigate the relationship between the level of teachers' knowledge on HIV/AIDS and students' knowledge and attitudes towards sexual behaviour in secondary schools in the Coast Region of Kenya.

3. Research Hypotheses

The following null hypotheses was tested at $\alpha = 0.05$ level of significance.

H₀₁: There is no significant relationship between teachers' level of knowledge on HIV/AIDS and students' knowledge on sexual behaviour in secondary schools in the Coast Region of Kenya.

H₀₂: There is no significant relationship between teachers' level of knowledge on HIV/AIDS and students' attitudes towards sexual behaviour in secondary schools in the Coast Region of Kenya.

4) Methodology

The study adopted a descriptive survey research design. The target population composed of 112013 respondents in 362 public secondary schools in Coast Region, Kenya. The sample comprised 417 respondents of which 29 were teachers and 388 students in 13 public secondary schools. The selection of schools was done using simple random sampling methods while participants were selected using purposive, propositional and simple random sampling. Data was collected using questionnaires and the rational of using it was because of the large number of the respondents. The pilot study was carried out in three schools in Kilifi County within the Coast Region, Kenya. The data from the pilot study was used to compute correlation coefficient. The test re-test method was used to obtain the two scores which were correlated using the Pearson's product moment correlation coefficient to establish the reliability of the instruments. The instruments were considered to be reliable if the yielded a reliable coefficient of 0.7 and above. Teachers' questionnaire and students'

questionnaire yielded a reliability coefficient of 0.8 each. The research tools were developed and validated before their use with help from supervisors and other members from the Department of Education. The researcher obtained permission to carry out the study from the National Commission for Science, Technology and Innovation (NACOSTI)

The study ensured privacy and confidentiality by allowing respondents to have pre-eminence over time and extent to which they could withhold or share information. The researcher also presented the proposal document to university ethical committee and any recommendation made by the committee was fully adhered to. The data collected was analyzed using both descriptive and inferential statistics. The descriptive statistics that was used include frequencies and percentages. Chi-square statistics was used to analyze data collected to establish the significance of the relationships between the study variables and ascertain the differences in the respondents. The data collected in this 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. Data from open ended questionnaire was presented in themes.

5. Results of the Study

The study was set to investigate the relationship between the level of teachers' knowledge efficacy on HIV/AIDS and students' knowledge and attitudes towards sexual behaviour in secondary schools in the Coast Region of Kenya. Information was collected from 417 respondents and the data analysis generated the following results:

4.1 Demographic Characteristic of the Respondents

Majority (55.1%) of respondents were male whereas 44.9% were female. The study revealed that 44% of teachers were trained in HIV/AIDS and/or life skill education and 56% were not trained. Majority of trained teachers (88.8%) were trained in HIV/AIDS education through seminars and workshops and 18.2% of teachers had trained in HIV/AIDS education at certificate or diploma level.

4.2 Teachers' Knowledge on HIV/AIDS and Students' Knowledge on sexual behaviour

The hypothesis (H_{01}) of the research study stated that there is no significant relationship between teachers' level of knowledge on HIV/AIDS and students' knowledge on sexual behaviour in

secondary schools in the Coast Region of Kenya. In order to test this hypothesis, it was necessary to establish teachers’ level of knowledge on HIV/AIDS and students’ knowledge and on sexual behaviour. The researcher used questionnaires to collect data from the respondents. The information is summarised in Table 1 and 2.

Table 1
Teachers Level of Knowledge on HIV/ AIDS

Respondents	Teachers response n = 25			
	High Knowledge		Low Knowledge	
Statements	F	%	F	%
HIV only infect people	13	52	12	48
All people who are HIV positive got it through sexual intercourse	24	96	1	04
A person can’t get HIV and AIDS by sharing clothes, utensils with an infected person	19	76	6	24
A person can get HIV through bites from insects such as mosquito, lice, bedbug	22	88	3	12
People who are HIV positive are always sickly	16	64	9	36
Condoms do not protect a person from getting infected with HIV during sexual intercourse	17	68	8	32
Knowing your HIV status can reduce the risk of HIV Infection	22	88	03	12
Abstaining from sexual intercourse is the only method of reducing HIV infection	15	60	10	40
Being faithful to one sexual partner can’t reduce the rate of HIV infection	17	68	08	32
Petroleum jelly is a good lubricant for condoms	14	56	11	44

The information in Table 1 showed that 52% of the teachers knew that petroleum jelly was not a good lubricant for condom, 12% of teachers indicated that people could get infected with HIV through insect bite. However, 96% of teachers had knowledge that sexual intercourse was not the only way HIV is transmitted. Table 2 shows a summary of students’ response to items that measured their level of knowledge on sexual behaviour.

Table 2

Summary of 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't 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 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 2 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 and information on Table 1 showed that 32% of teachers stated that condoms do not protect people from getting infected with HIV. The information in Table 2 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 and information in Table 1 showed that 56% of teachers indicated that petroleum jelly was not a good lubricant for condom which was above average. Majority (86%) of Form 1 students indicated that insect bites can transmit HIV compared to 11.8% of Form 4 students. The results in Table 1 showed that 12% of teachers indicated that a person can get HIV through insect bite.

The hypothesis one (H_{01}) of the research study sought to find out whether there was any significant relationship between teachers' level of knowledge on HIV/AIDS and students' knowledge on sexual behaviour. In this study, teachers' knowledge on HIV/AIDS and students' knowledge on sexual behaviour were categorised in two groups, high and low. The results of the findings are shown in Figure 1.

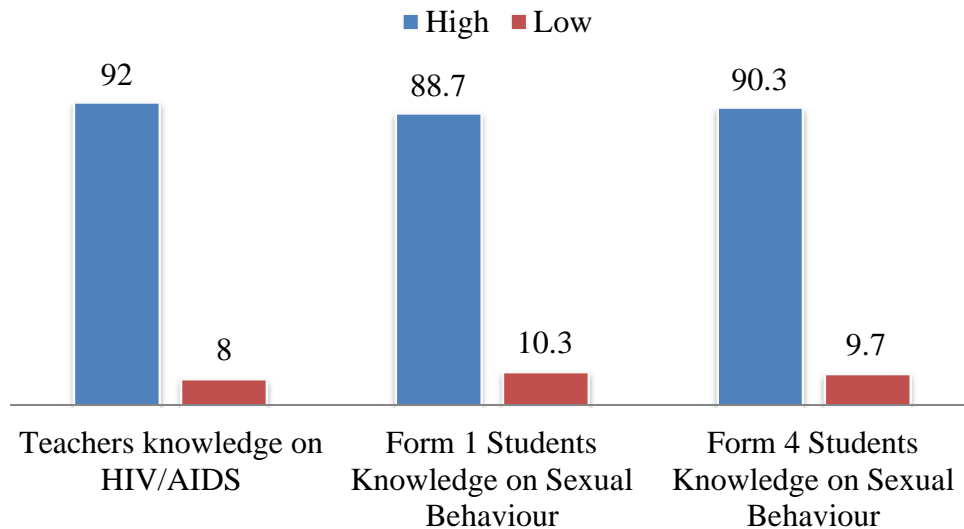


Figure 1 Teachers Knowledge on HIV/AIDS and Students' knowledge on Sexual Behaviour

Figure 1 showed that 92% of teachers had high knowledge on HIV/AIDS compared to 90.3% of Form 4 students and 88.7% of Form 1 students who had high knowledge on sexual behaviour. The findings of this study were consistent with results obtained by Peltzer (2003) who reported that most secondary school teachers had knowledge about HIV and AIDS in South Africa. Weiler and Cassandra (2012) also reported that teachers graduating from University had high level Knowledge on HIV and AIDS in Ghana.

However, 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 the relationship between HIV and AIDS and also about HIV transmission and prevention in Botswana. In this study, Form 1 and primary school pupils in Majelantle et al study were not different since the present study was carried out immediately the Form 1 reported for their secondary education. To find out whether there was a significant relationship between teachers'

level of knowledge on HIV/AIDS and students' knowledge on sexual behaviour, Chi-square test was performed. The findings are presented in Table 3.

Table 3

Chi-square test between Teachers' Knowledge on HIV/AIDS and Students' Knowledge Level of Sexual Behaviour

	Teachers	Form 1 students	Form 4 students
Chi-square	17.640	121.290	126.405
df	1	1	1
Asymp. Sig.	.000	.000	.000

The results in Table 3 showed that there was a significant relationship between teachers' level of knowledge on HIV/AIDS and students' knowledge on sexual behaviour ($df1, p < .05$) and based on this finding the null hypothesis was rejected.

4.2.1 Teachers' Knowledge and Students' Attitude towards Sexual Behaviour

The hypothesis two (H_{02}) of the research sought to find out whether there was any significant relationship between teachers' level of knowledge on HIV/AIDS and students' attitude towards sexual behaviour in secondary school in Coast Region of Kenya. In this study, students' attitudes towards sexual behaviour was categorised in two groups; positive and negative attitude towards sexual behaviour respectively. The findings are shown in Table 4.

Table 4

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	35.4	126	64.6
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	52
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 4 indicated that 64.2% of Form 1 and 57% of Form 4 students believed that peer influence played an important role when students engaged 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 Chinsebu 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. Nath (2009) also found out that condom awareness was fairly high but condom usage was low among the youth in India and the youth appeared to hold negative attitudes towards HIV testing. Mayock and Byrne (2005) found out that 63% of females and 77% of males reported incidents of non-condom use since their first experience in Dublin and Ireland.

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. In order to test the stated hypothesis, the analysis was done by the help of descriptive statistics and Chi-square test. The results are shown in Figure 2 and Table 5.

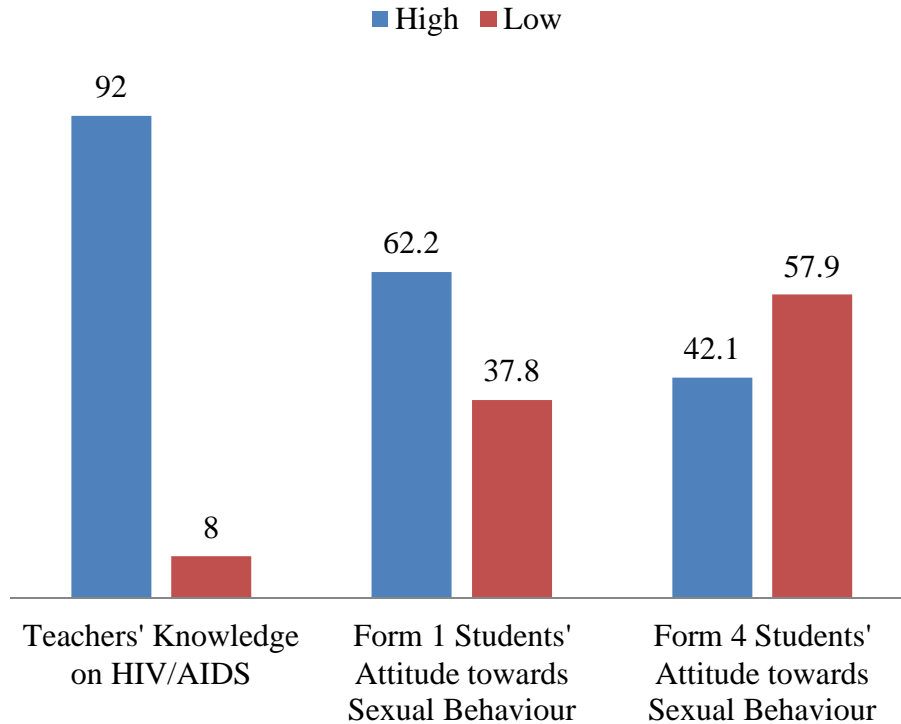


Figure 2 Teachers' Knowledge on HIV/AIDS and Students' Attitude towards Sexual Behaviour

Figure 2 showed that 92% of teachers had high knowledge on HIV/AIDS compared to 62.2% of Form 1 students and 42.1% of Form 4 students who had a positive attitude towards sexual behaviour respectively. The information in Figure 2 for Form 4 students was consistent with the findings by Pierson et al (2008) which showed that 40.4% of the students reported having had multiple sexual partners in Malawi. However, their study was carried out among first years in a University. The same result for Form 4 students is also supported by Thanavanh et al (2013) findings which showed that a high percentage of students who were sexually active reported having had more than one sexual partner at Lao People's Democratic. Chi-square test was done to test the stated hypothesis and the results are shown in Table 6.

Table 6

Chi-square Test between Teachers’ Knowledge and Students’ Attitude towards Sexual Behaviour

	Teachers level of knowledge	Form 1 students’ attitude	Form 4 students’ attitude
Chi-square	11.640	11.446	4 .928
df	1	1	1
Asymp. Sig.	.000	.001	.026

The results in Table 6 showed that there was a significant relationship between teachers’ level of knowledge on HIV/AIDS and students’ attitudes towards sexual behaviour (*df*1, *p* < .05). The null hypothesis stated was rejected. Observation of Figure 2 showed that 92% of teachers had a high knowledge on HIV/AIDS and this compared with 62.2% of Form 1 students who had a positive attitude towards sexual behaviour and on the other hand 57.9% of Form 4 students had a negative attitude towards sexual behaviour. The relationship between teachers’ level of knowledge and Form 4 students’ attitude towards sexual behaviour was, therefore, negative.

To shed more light on the relationship between teachers’ knowledge on HIV/AIDS and students’ knowledge and attitude towards sexual behaviour, teachers were requested to indicate if they knew students who were HIV positive in the school they teach and on the other hand, students were 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.

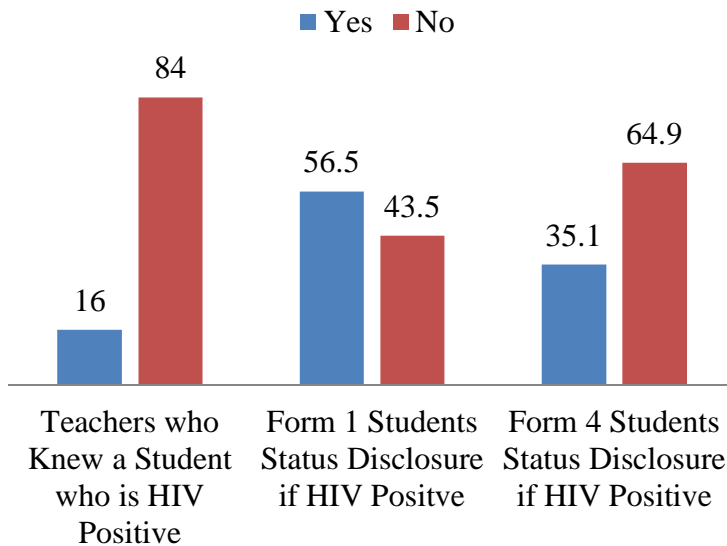


Figure 3 Teachers’ Who Knew Students’ HIV Status and Students’ Disclosure of HIV Status

The results in Figure 3 showed that 84% of teachers did not know a student who was HIV positive in their school while 43.5% of Form 1 students and 64.9% of Form 4 students indicated that they cannot disclose their HIV status if they were HIV positive. Teachers who had knowledge on students who were HIV positive and students who indicated that they would disclose their HIV status were further requested to state one advantage of students disclosing their status. The participants' responses are represented in Table 7.

Table 7

Benefits of Teachers' and Students' Disclosure for HIV Status

Reasons	Teachers		Form 1 Students		Form 4 students	
	F	%	F	%	F	%
No valid reasons/no response	0	0	45	42.9	17	24.3
Protect others from getting infected	0	0	6	5.7	17	24.3
Become peer educators	0	0	24	22.8	16	22.8
Counselling	4	100	30	28.6	20	28.6
Total	4	100	105	100	70	100

The information in Figure 3 showed that 54% of Form 1 students would disclose their HIV status if they were HIV positive but information in Table 7 showed that 42.9% could not give a valid reason why disclosing their HIV status was important. On the other hand, results in Figure 3 showed that 35% of Form 4 students would disclose their HIV status if they were HIV positive and information in Table 7 revealed that 24.3% could not give a valid reason why disclosing of one's status was important.

Teachers who did not know any student who was HIV positive and students who could not disclose their HIV status were requested to list one reason that prevented students from disclosing their HIV status. The participants' responses were summarised in Table 8.

Table 8
Reasons Teachers and Students Gave for Lack of HIV Status Disclosure

Reasons	Teachers		Form 1 Students		Form 4 students	
	F	%	F	%	F	%
No valid reasons/no response	3	14.3	33	39.3	32	25.6
Stigma/loss of friends	13	61.9	38	45.2	89	71.2
Fear/lack confidence	3	14.3	13	15.5	0	0
No student is HIV positive	2	9.5	0	0	0	0
Avoid stress	0	0	0	0	4	3.2
Total	21	100	84	100	125	100

The information in Table 8 revealed that 14.3% of teachers, 39.3% of Form 1 students and 25.6% of Form 4 students could not give a valid reason why it was not easy for a student to disclose his/her status. On the other hand, 61.9% of teachers, 45.2% of Form 1 students and 71.2% Form 4 students reported that stigma/loss of friends was the contributing factor that stopped students from disclosing their HIV status if they were positive. 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.

6. Discussion of the Results

The findings of the study showed that there was a relationship between teachers' knowledge efficacy on HIV/AIDS and students' knowledge on sexual behaviour. Teachers' knowledge on HIV/AIDS and Form 4 students' knowledge on sexual behaviour showed a positive relationship. The findings of the study are consistent with Jahanfar et al (2008) study which measured the effectiveness of two hours talk on sex education offered by a non-governmental organization in improving youngsters' knowledge and perception towards HIV and AIDS in Malaysia. Paired t-test was used to compare pre and post-test level of knowledge and perception. Chi-square test was used to compare qualitative data. The finding suggested that there was a significant increase in participants' knowledge and perception after the intervention. The results of this study are also consistent with findings by Bekeny (2009) who reported that there was a correlation between HIV/AIDS education and students' attitudes towards PLHIV among students in Cameroon.

The findings of the study showed that there was a relationship between teachers' knowledge efficacy in HIV/AIDS and students' attitude towards sexual behaviour. Teachers' knowledge on HIV/AIDS and Form 4 students' attitudes towards sexual behaviour portrayed a negative relationship. The success of a student and school is determined by the number of good grades achieved by the student and school mean grade respectively. Therefore, there is pressure from parents, community and stakeholders at large for students and school to produce good grades. According to Mwakio and Ngumbao (2010), education opens doors for students who are guaranteed good jobs when they complete their studies. Parents also spend money to educate their children with the hope that they would pass examination and get jobs to rescue them from poverty (Mghanga, 2010). Education in Kenya is, therefore, geared towards passing of examination and this neglects holistic development of students through education. The pressure to perform could, therefore, have resulted in students cramming to pass examination since information on HIV and AIDS was found in all textbooks used in secondary school and this could explain the high knowledge among many Form 4 students on sexual behaviour but with negative attitude towards sexual behaviour. According to Olugbennga-Bello, et al (2013), there is need for the involvement of the stakeholders in bridging the gap between knowledge and attitude towards prevention of MTCT of HIV among women which could be applicable to secondary schools students in this study as far as knowledge and attitude towards sexual behaviour is concerned.

7. Recommendations

Based on the findings, Teachers Service Commission and Boards of Management (BoM) should sponsor teachers to train on HIV/AIDS education and life skills either through regular seminars and workshops or in-service training to equip them with the necessary knowledge on how to increase students' students' attitude towards sexual behaviour.

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