

Efficiency and Effectiveness of Implementation of HIV and Aids Curriculum in Primary Schools, Kenya

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Abstract: *The rapid spread of HIV and AIDS made the government of Kenya to focus on Mechanisms and strategies of preventing the spread, mitigating its consequences and providing care and support for people living with HIV/AIDS (PLWA). In this regard education was identified as the critical means of achieving behaviour change in and out of the classroom. This study sought to investigate the efficiency and effectiveness of the methods used to implement HIV and AIDS curriculum integration. The study population constituted all class eight pupils, teachers, head teachers, teacher counsellors, quality assurance and standards officers of the Ministry of Education. Both multi – stage cluster sampling and purposive sampling procedures were used to select the sample. Primary data was collected using structured questionnaires, interview schedule, observation checklist and Focus Group Discussion. Secondary data was collected from documented information on HIV and AIDS curriculum integration programme. The study established that 72% pupils were of the view that the methods used for teaching HIV and AIDS were good while 28.0% said that the methods were not good. In addition, the pupils admitted that HIV and AIDS education enabled them to change their sexual behaviour. The study recommends that teachers should be encouraged to attend HIV and AIDS training, so as to embrace HIV and AIDS education irrespective of their teaching subjects.*

Keywords: efficiency, effectiveness, HIV and AIDS, implementation and curriculum

1. Background to the Study

In Johannesburg, it was found out that, majority of the respondents showed a positive attitude and willingness to the integration of HIV and AIDS across the curriculum (Mostert, 2005). They also believed that HIV and AIDS should not only be addressed in the life orientation class, and most educators supported the concept of addressing HIV and AIDS throughout the curriculum. The learners' receptiveness towards HIV and AIDS was perceived as positive. However, the inference can be made that, attitudes towards HIV and AIDS stigma and prejudice was not successfully addressed in the current intervention initiatives (Mostert, 2005).

An evaluation study in Lagos captured the difference that the curriculum was making to the youth sexual health and overall well-being as; students who had a full three years exposure to the curriculum had significantly higher knowledge about sexuality and reproductive issues. This difference applied to both young women and men; significantly, larger percentages of students with a full three years of exposure to the curriculum than students with no exposure expressed gender equitable attitudes. (Mostert, 2005)

Significantly larger percentages of girls exposed to the curriculum than girls with no curriculum exposure felt that they had the ability to say no to boys in intimate situations. (Action Health, 2010)

Education in Guinea clearly lacks direction and systematic implementation by the sector (Tombe et al, 2005). The study discovered that, there was limited content coverage

regarding HIV and AIDS on the formal education curriculum in practice and the regular face to face educational approach benefits only 0.2% of the total instructional time in a year to the epidemic.

In Uganda, HIV and AIDS curriculum was integrated in the revised curriculum for both primary and secondary schools. All the teachers are expected to teach using the revised curriculum. Arguably as they teach the integrated curriculum they are going to pass the HIV and AIDS messages. However, majority of the teachers were not adequately trained on the infusion strategy, and this lack of knowledge, skills, attitude and confidence negatively affected the quantity and quality of the implementation of the national HIV and AIDS curriculum. HIV and AIDS was not examinable, thus some teachers did not teach HIV and AIDS instead used the time allocated to teach other subjects that they considered important for achieving success in national exams (Ndambuki, 2006)

HIV infection among children and young people in many parts of Africa continues to grow. About 14% of infections worldwide occur among children. At the end of 2003 approximately 2.5 million children were living with HIV/AIDS related infections (UNAIDS, 2003).

The baseline survey showed that Students exposed to training corps were better informed on ways of contracting HIV and AIDS, passing on the virus and reducing the risk of becoming infected; 5.6% students have ever been tested for HIV or the AIDS virus, while only 62.0% of those that have never been tested would want to be tested. Students exposed to the peer education training showed better attitudes

towards people living with HIV and AIDS (PLWA) than other students who were not trained (F.O.S, 2003).

In Kenya it was also discovered that, despite the fact that HIV and AIDS education is being taught in schools, the needs of the vulnerable children remain unmet thus curtailing their full participation in the schooling process. Although some head teachers were aware of the HIV and AIDS education sector policy, relatively few teachers were conversant with its contents (Ruto *et al.*, 2009).

2. Statement of the Problem

Education has been identified as the critical means of achieving behavior change in and out of the classroom (UNAIDS 2000). However many programmes for sensitization focused on the young have been reported to fail to address some of the key determinants of vulnerability, such as the high prevalence of HIV and AIDS in many countries (UNAIDS, 2008). In Kenya, it has been discovered that most schools do not teach students about HIV and AIDS as part of the formal curriculum (Jacob *et al.*, 2007) and studies have noted that the implementation process in secondary schools pause head teachers with several challenges (Kwedho *et al.*, 2010). The intervention measures in colleges have had little impact on students' knowledge, attitudes and behavior change (Duflo *et al.*, 2010).

The findings of HIV and AIDS Education Sector Policy indicates that, the basic needs of vulnerable children remain unmet and therefore curtailing their full participation in the implementation process (Ruto, Chege, & Wawire, 2009).

However the government still put a lot of emphasis on infusion and integration of HIV and AIDS messages into the curriculum at all levels of education. On that basis, if a study was not done to find out the faulty of the programme that is being implemented, then the government will waste its resources investing in a programme that is not achieving its objective of controlling the spread of HIV amongst the youth, and may not also attain positive behavior change as expected. Most of the above cited studies have been done in colleges, universities and secondary schools but very few have been done in primary schools. They also focused on; intervention measures, HIV prevalence, perceptions and challenges specifically faced by head teachers.

It is on this basis that this study sought to examine the efficiency and effectiveness of the implementation of HIV and AIDS curriculum integration and develop an appropriate model of effective integration and implementation of HIV and AIDS in primary school curriculum in Kenya.

2.1 Research Objective

The general objective of this study was to evaluate the effectiveness of the methods used to implement HIV and AIDS curriculum integration in primary schools

2.2 Methodology

The target population for the study included; teachers, District Quality Assurance and Standards officers in the ministry of Education and pupils in primary Schools of Bundoma County. An evaluation research design was

adopted. Both non-probability and probability sampling procedures were used to select the required respondents. Data was collected by use of Questionnaires, interview schedule; focus group discussion, observation check list reports and documented information.

3. Results and Discussion

Pupil's Evaluation of the Methods Used to Teach HIV and AIDS

The study sought to evaluate the effectiveness of the methods used for teaching HIV and AIDS education in primary schools. To achieve this, pupils were asked to indicate whether the methods used for teaching HIV and AIDS education were good. The results show that 72.0% of the pupils were in agreement that the teaching methods were good while 28.0% said that the methods were not good. This means that despite the majority of students being positive about the teaching methods, a considerable number is still not satisfied with the teaching methods used.

From FGDs with pupils, most pupils were of the view that they are being taught well. However, pupils who said they were not being taught well claimed that a teacher's teaching approach greatly determined the learners' reception to the knowledge being taught. This was due to their cultural beliefs which did not allow sexual matters to be discussed in public. So, the effectiveness of the communication of HIV and AIDS education greatly depended on the methods or approach used by the teacher.

Effect of HIV and AIDS Education on Behavior Change of Pupils

The efficiency and effectiveness of HIV and AIDS curriculum implementation programme would be determined by the change of behavior amongst the youth or pupils in schools. It is on this basis this objective aimed at establishing whether the integration of HIV and AIDS education in the curriculum has helped to change the sexual behavior of the pupils.

To achieve this, learners were asked to indicate whether the study of HIV and AIDS education had helped them change their sexual behavior.

A Chi Square test was conducted at 5% level of statistical significance to determine if there were significant differences on the responses of pupils. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses on whether the methods used to teach HIV and AIDS curriculum in primary schools were good ($\chi^2_{1,0.05} = 77.44$; $P < 0.01$).

The results show that 82.8% of the pupils admitted that HIV and AIDS education enabled them to change their sexual behavior. However, 17.2% said that the education did not make them change their sexual behavior at all. It is therefore evident that the HIV and AIDS education was not having a positive impact on sexual behaviors of all the learners. Those who had not changed their behavior meant that they had not acquired adequate information on HIV education;

this means the implementation process is not effectively being done in all the schools. That is why those with HIV knowledge have positive attitude and those without have negative attitude.

Results from the FGDs and interviews indicate that, this was due to cultural beliefs and attitudes of the concerned communities some teachers and especially the aged ones still shy off from sharing sexual information with the pupils. Some claimed that they fear sharing HIV information with the learners due to stigma; they said that ones you talk about HIV and AIDS, learners start associating you with the infected people.

These findings are in agreement with those of a study carried out in Nigeria to establish the effect of intervention on the behavior change of learners. The study established that 92.8% of the intervention students as compared to only 56.7% of the controls felt AIDS constituted a problem in Nigeria, indicating better attitudes among the intervention group. The end line data also showed that there was a decrease in the number of sexual partners among the intervention students from 1.51 to 1.06, while their condoms use increase. The education programme was successful in improving the students' sexual practices as well as their knowledge and attitudes regarding HIV and AIDS (Fawole, et al, 1999).

Pupils' Knowledge on the Causes of HIV and AIDS

The study sought to assess the pupils' knowledge base on the causes of HIV and AIDS. To achieve this, pupils were asked to respond to questions based on a five point Likert scale: Strongly Agree (1), Agree (2), Neutral (3), Disagree (4) and Strongly Disagree (5).

Pupils were asked to respond to the statement "HIV and AIDS is transmitted through practicing sex". A Chi Square test was carried out at 5% level of statistical significance to determine if there were significant differences on the responses by pupils on whether HIV and AIDS is transmitted through practicing sex. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 649.479$; $P < 0.01$).

Results indicate that 64.5% strongly agreed with the statement, 30.9% agreed, 0.7% were undecided, 1.5% disagreed while 1.8% strongly disagreed. These findings indicate that majority (95.8%) of the pupils are aware that HIV and AIDS is transmitted through practicing sex. This is an indication that they have acquired knowledge on the transmission of HIV by being taught in schools. However, a few of the pupils (4.2%) do not know that HIV and AIDS can be transmitted through practicing sex.

This is an indication that there were some teachers who were not empowering pupils with knowledge on the causes of HIV and AIDS. This also implies that the HIV and AIDS curriculum integration programme is not being implemented effectively in such schools, since the main objective of the programme is for all learners to acquire enough knowledge on HIV and AIDS.

Pupils were also asked to respond to the statement "HIV and AIDS is transmitted through sharing sharp needles".

A Chi Square test was carried out at 5% level of statistical significance on the responses by pupils on whether HIV and AIDS is transmitted through practicing sex. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 562.325$; $P < 0.01$).

Majority of the pupils (60.9%) strongly agreed that HIV and AIDS is transmitted through sharing of sharp needles, 30.9% agreed, 3.1% were undecided, 2.6% disagreed while 2.3% strongly disagreed. These findings also indicate that only 91.8% of the pupils are aware that HIV can be transmitted through sharing of sharp needles. Not all pupils are aware that HIV and AIDS can be transmitted through sharing sharp needles (7.8%).

This is an indication that, despite the fact that other teachers are trying to implement HIV and AIDS curriculum programme, there are some who are reluctant and this affects the effectiveness of the implementation of HIV and AIDS curriculum integration programme because the purpose of this programme is to make all the youth be aware of the risks of transmitting HIV and AIDS so that they can protect themselves from being infected. Pupils were further asked to react to the statement "HIV and AIDS is transmitted through blood transfusion from an infected person to another".

A Chi Square test was carried out at 5% level of statistical significance on the responses by pupils on whether HIV and AIDS is transmitted through blood transfusion from an infected person to another. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 442.325$; $P < 0.01$).

The responses show that 49.4% of the pupils strongly agreed that HIV and AIDS is transmitted through blood transfusion from an infected person to another, 42.9% agreed, 4.6% were undecided, 0.5% disagreed while 2.3% strongly disagreed. These findings indicate that most (92.3) of the pupils are aware of HIV and AIDS being transmitted through blood transfusion from an infected person to another. This shows that pupils have acquired proper knowledge and skills on transmission of HIV as regards blood transmission from the infected person to another person. However a few pupils (7.4%) still do not understand that HIV can be transmitted through blood transmission.

This is an indication that this percentage of pupils lack knowledge on HIV transmission as regards blood transmission from an infected person to another. Thus there is an evident gap in the implementation process of HIV and AIDS curriculum integration programme. It is not hundred percent effective.

Last, pupils were also asked to react to the statement "HIV and AIDS can be transmitted by sharing knives during circumcision".

A Chi Square test was carried out at 5% level of statistical significance on the responses by pupils on whether HIV and

AIDS can be transmitted by sharing knives during circumcision. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 316.825$; $P < 0.01$).

Results indicate that 43.7% of the pupils strongly agreed that HIV and AIDS is transmitted through sharing knives during circumcision, 39.041.5% agreed, 7.8% were undecided, 3.9% disagreed while 5.4% strongly disagreed. These findings indicate that most (82.8%) pupils were aware that HIV and AIDS can be transmitted through sharing knives during circumcision, this shows that HIV and AIDS education has improved on pupil's achievement behavior and thus, those with HIV knowledge will make appropriate decisions as regards sharing of knives during circumcision. However a few (17.1%) were not aware. This indicates that there are still some gaps as regards teaching HIV education is concerned. This group that is lacking knowledge should be focused on by teachers, so that they can also learn about HIV infection through sharing of knives during circumcision.

Pupils were also asked to react to the statement "HIV and AIDS can be transmitted by sharing spoons, clothes, plates and a bed". A Chi Square test was carried out at 95% confidence level on the responses by pupils on whether HIV and AIDS can be transmitted by sharing spoons, clothes, plates and a bed. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 352.975$; $P < 0.01$).

Results indicate that 3.5% of the pupils strongly agreed that HIV and AIDS is transmitted through sharing spoons, clothes, plates and a bed, 3.5% agreed, 7.3% were undecided, 40.5% disagreed while 45.3% strongly disagreed. The results indicate that most pupils (85.8%) were aware that, HIV and AIDS cannot be transmitted through sharing spoons, clothes, plates and a bed. This is an indication that, they have acquired knowledge through being taught in class or sharing about it in groups.

However, a few (14.2%) of the pupils were not aware that HIV and AIDS cannot be transmitted through sharing spoons, clothes, plates and a bed. This means that they are not exposed to the knowledge of HIV and AIDS education. This is an indication that there are gaps in the HIV and AIDS curriculum implementation process that still need to be filled. These findings are supported by FAO (2003) which also established that student exposed to training corps members and peer educators were better informed than other students who were not exposed on ways of contracting HIV and AIDS.

The findings that were established during the focus group discussion concerning knowledge of the pupils on HIV and AIDS were that, in some schools, most of them understood the causes or modes of HIV transmission. They were courageous enough to discuss about it, but in other schools the pupils would shy off completely from discussing HIV and AIDS issues. This is an indication that they were not used to discussing about it in school with their teachers, and also they still hold on their traditions that it is a taboo to discuss about sexual matters in the open. This is therefore

assign that the implementation of HIV and curriculum programme was not taken seriously in all schools, there are some teachers that are trying but others are reluctant.

Pupils' Knowledge Base on the Effects of HIV and AIDS

The study sought to assess the pupils' knowledge on the effects of HIV and AIDS. This assisted the researcher to be able to understand the efficiency and effectiveness in which HIV knowledge was being communicated to the youth. To achieve this, pupils were asked to respond to questions based on a five point Likert scale: Strongly Agree (1), Agree (2), Neutral (3), Disagree (4) and Strongly Disagree (5).

Students were asked to respond to the statement "HIV and AIDS makes children become orphans and overburdened with work".

The responses indicate that 58.3% of the pupils strongly agreed that HIV and AIDS makes children become orphans and overburdened with work, 34.3% agreed, 2.8% were undecided, 2.0% disagreed while 2.3% strongly disagreed. This shows that most pupils were aware that HIV and AIDS make children become orphans and overburdened with work, thus, indicating that they had acquired knowledge on HIV and AIDS.

However a few (7.1%) were not aware. This an indication of lack of knowledge and thus such pupils to taught about the effects of HIV education. This was also established during the focus group discussion, since the pupils could be able to explain how some of their friends were suffering as a result their parents' death. They really sympathized with them, it was thus discovered that pupils feared HIV and AIDS which led to discrimination against the infected and affected ones. Discrimination against the HIV infected persons was seen to be very strong in schools. This also contributed to the inefficiency of the curriculum implementation process since it was discovered that some teachers feared teaching about HIV and AIDS because they did not want to be associated with it.

The responses Students were asked to respond to the statement "HIV and AIDS leads to poverty in families". A Chi Square test was carried out at 5% level of statistical significance on the responses by pupils. The results showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 304.70$; $P < 0.01$).

The responses show that 4.2% of the pupils strongly agreed that HIV and AIDS leads to poverty in families, 32.2% agreed, 2.6% were undecided, 15.6% disagreed while 5.2% strongly disagreed. This indicates that most pupils (76.4%) were in agreement that HIV and AIDS leads to poverty in families. These findings are an indication that the pupils have acquired knowledge on how HIV and AIDS can lead to poverty. However a few (23.4%) were against the argument that HIV and AIDS leads to poverty meaning that they have no knowledge on the effects of HIV and AIDS on families and Society as a whole. This is assign that HIV education is not being communicated effectively to the pupils otherwise

all of them would be aware that HIV and AIDS had negative effect on the families and community as a whole.

Pupils' knowledge on prevention of HIV and AIDS

The study sought to establish the pupils' knowledge base on ways of preventing HIV and AIDS. This assisted the researcher to establish the efficiency and effectiveness of the HIV curriculum implementation programme.

To achieve this, pupils were asked whether one can prevent himself or herself from HIV and AIDS by abstaining or not practicing sex at all. A Chi Square test carried out at 5% level of statistical significance on the responses by pupils showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 553.575$; $P < 0.01$).

Results show that 67.1% of the pupils strongly agreed that HIV and AIDS can be prevented by abstaining or not practicing sex at all, 20.0% agreed, 3.6% were undecided, 7.5% disagreed while only 1.5% strongly disagreed. This indicates that majority (87.1%) pupils were in agreement that HIV and AIDS can be prevented by abstaining or not practicing sex at all. This shows that they have knowledge on the prevention of HIV infection.

However, a few (12.9%) lacked this knowledge. This is an indication that some pupils were not being taught about prevention of HIV infection. Some teachers therefore are not taking HIV and AIDS curriculum integration programme in primary schools seriously.

Pupils were further asked on whether one can prevent himself or herself from HIV and AIDS by using condoms during sexual activity. A Chi Square test carried out at 5% level of statistical significance on the responses by pupils showed that there was a highly statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 284.175$; $P < 0.01$).

Results show that only 16.1% of the pupils strongly agreed that HIV and AIDS can be prevented by using a condom during sexual activity, 55.4% agreed, 7.3% were undecided, 14.5% disagreed while 10.9% strongly disagreed. This indicates that majority of pupils (71.5%) were in agreement that HIV and AIDS can be prevented by using a condom during sexual activity. This is an indication that they have acquired knowledge of HIV prevention.

However, a considerable proportion (28.5%) lacked this knowledge. These findings establish that a considerable number of pupils are not aware that HIV and AIDS can be prevented by using a condom during sexual activity. This means that some teachers were not using appropriate methods to effectively embracing HIV and AIDS curriculum integration programme. That is why some pupils were ignorant.

Finally, pupils were further asked whether HIV and AIDS can be prevented by not sharing sharp needles. A Chi Square test carried out at 5% level of statistical significance on the responses by pupils showed that there was a highly

statistically significant ($P < 0.01$) difference in the responses ($\chi^2_{4,0.05} = 296.70$; $P < 0.01$).

Results show that 38.0% of the pupils strongly agreed that HIV and AIDS can be prevented by not sharing sharp needles, 46.0% agreed, 1.0% were undecided, 9.3% disagreed while 4.7% strongly disagreed. These results show that majority (84.0%) of pupils were aware that HIV and AIDS can be prevented by not sharing sharp needles. However, a few (18.5%) of the pupils were not aware of this. This shows that some pupils are not aware that HIV and AIDS can be prevented by not sharing sharp needles. They therefore may go ahead and risk their lives to HIV infection by sharing sharp needles due to lack of knowledge.

Findings from FGDs and interview schedules indicated that pupils had gathered so much knowledge on the causes, prevention, transmission and effects of HIV AIDS. This was gathered through seminars, classroom teaching, clubs and societies, sports, parents and other ways discussed above.

The above findings indicate that most pupils (80.1%) who were knowledgeable about the causes, effects and prevention of HIV and AIDS would practice positive behavior change because they know what they should do to prevent infection for example by using condoms if they must practice sex, abstain from sex, and avoid using sharp needles with others. This is likely to be as a result of HIV and AIDS education which has been taught in their schools. These findings are supported by a study of secondary schools in Nigeria by F.O.S (2003), which also established that students exposed to training corps members and peer educators were better informed than other students on ways of contracting HIV and AIDS, passing on the virus and reducing the risk of becoming infected with HIV and AIDS virus; 5.6% students have ever been tested for HIV or the AIDS virus, while only 62.0% of those that have never been tested would want to be tested. Students exposed to the peer education training showed better attitudes towards people living with IV and AIDS (PLWA). The study found out that NYSC peer educator programme was having a positive impact in reducing the rate of HIV and AIDS spread in the country (Federal office of statistics, 2003).

4. Recommendation

The study recommends that teachers should be encouraged to attend HIV and AIDS training, so as to embrace HIV and AIDS education irrespective of their teaching subjects.

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