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## Analysis of HIV/Aids Issues in the Primary Teacher Education Science Education Curriculum

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### Abstract:

*HIV/AIDS has become a threat to the quality of education in Uganda, Africa and the world over. This has attracted the attention of different organizations, governments and individuals on how they can mitigate the effects of this pandemic. This article presents an exploration of the curriculum on HIV/AIDS in Primary Teachers' colleges (PTCs) in Uganda. It examines the HIV/AIDS content in the PTE curriculum, reasons for teaching this content, what is expected to know the topic and why it is important to teach student teachers this content. This article is expected to guide science tutors, science teachers and student teachers on how they should teach sensitive issues related to HIV/AIDS by utilizing their TPCCK.*

**Keywords:** HIV Literacy, Stigmatization, TPCCK and Teaching

### 1. Introduction

This paper presents the analysis on the topic on STDs, HIV and AIDS for year one in the Primary Teacher Education (PTE) curriculum for Primary Teachers' Colleges (PTCs). It will highlight on reasons why the topic was selected for exploration, what is meant for knowing the topic, why it is worthy students' attention and insights gained from the investigation. The topic was selected with the learning outcomes of naming the common STDs and their signs and symptoms, mentioning the various ways in which STDs, HIV/AIDS is acquired and developing behavioral change to control their spread and preparing and teaching lessons concerning STDs, HIV and AIDS.

### 2. Reasons for Selection of STDs, HIV/AIDS Topical Content

This topic was selected because the AIDS pandemic has greatly affected the supply of education by losing teachers, tutors, administrators and other support staff. This later affects the teaching learning process as increased absenteeism leads to interruptions in teaching resulting in poor quality of education (Haribhondhu & Oliveras, 2013). It is therefore important that teachers are alerted to know how STDs like AIDS/HIV influence education.

According to UNESCO (2006) education has a critical role in preventing future HIV infections by helping learners and educators in formal and informal settings to avoid infections. Additionally, UNESCO recognizes the responsibility of addressing and responding to the impact of the epidemic on formal and non-formal education systems and need to expand efforts to address issues related to care, treatment and support of those infected and affected by HIV. The infusion of the content of STDs into the PTE curriculum was done with the intention of promoting access to information related to STDs like AIDS by students.

More importantly, this topic was selected for analysis so as to make me literate about the content so that am in position to handle issues related to HIV/AIDS in the college. Wood (2009) clarifies that HIV/AIDS literacy is becoming an increasingly important factor in determining the teacher's ability to handle challenges and stress that affect the education system as a result of the pandemic. Baxen, Wood & Austin (2011) describe AIDS&HIV literacy as the teacher's ability to know the biomedical facts of the virus on addition to possessing a wider and holistic understanding of the cultural, economic and social consequences of the pandemic. This examination of the topic is relevant as it will enable me to critically analyze the nature of students I have with focus to the pandemic. The nature of the classroom climate should provide a friendly environment characterized with freedom of expression, care, openness and trust. While delivering my lessons, it is necessary that the classroom discourse and attitudes do not promote stigmatization inclined to the virus (Traore & Savarand, 2004). This analysis has helped me to realize that since this topic on STDs like AIDS is sensitive, strategies identified for use should create a safe and engaging space where myths, stereotypes, perceptions and misconceptions should be addressed.

Related to the above, despite the fact that STDs or HIV/AIDS cannot be transmitted in the college or school setting, schools are often targeted for fear of parents, staff, administrators, young people and the community due to misunderstandings on the spread of STDs or AIDS (Mwamadzungu & Nassanga, 2005). This finding is important in facilitate understanding so as to avoid both fear and discrimination among the victims within the college community by stressing the rights of HIV infected victims and others to privacy, confidentiality and participation in the college community. Haribhondhu & Oliveras (2013) emphasized that training teachers on HIV/AIDS gives them skills to manage HIV/AIDS related issues like overcoming barriers of talking about sexuality through the use of interactive methods of teaching in the

classroom. Since this is a form of training, am optimistic that the knowledge got enables tutors to go and teach student teacher's issues related to STDs or AIDS while observing the points studied above. Emphasis should be put on the application of what has been learnt in class to real life situations which will promote unity and team work among the members.

### 3. Strategies of Teaching the Topic

This topic on STDs, HIV/AIDS was meant for coverage in the second year of the PTE course in Integrated Science Education. It is necessary for science teachers to be prepared adequately by utilizing the different types of knowledge they have so that students are able to understand the topic well. At this moment, it requires the teacher to use the Pedagogical knowledge (P), Content knowledge(C), Pedagogical Content Knowledge (PCK) and to some extent the Technological Pedagogical Content Knowledge (TPCK) using curriculum transformation where technology is used in transforming teaching and learning (Fernandez, 2014). This topic has six specific competences that are supposed to be met by student teachers, identifying the common STDs, stating the causes, signs and symptoms, describing the effects, prevention, control and treatment of STDs, stating the causes of HIV/AIDS and describing how it is spread, stating the effects, prevention and control of HIV /AIDS, suggesting the different ways of caring for HIV/AIDS in the upper primary curriculum and demonstrate how to teach it. The arrangement of competences is good as students will be presented to issues related to STDs.

Nonetheless, Talukdar (2013) explains that young people are prone to contracting STDs and rely on school programs for their health-related behaviors. Health behaviors specifically knowledge and attitudes can successfully disseminate from teachers to students. It is therefore necessary that the content on the role of teachers and other stakeholders in controlling and preventing the spread of STDs be added in the curriculum so that they are taught on their specific roles while still in the college. Zambian MOES (2007) explained that recognizing the importance of teachers in shaping the spread of HIV/AIDS, it was decided that HIV/AIDS content be integrated into the teaching learning process at all levels. This backs the above argument that teachers be equipped with knowledge, skills, values and attitudes for dealing with STDs so that they are able to handle it at every stage of education system.

It is vital that students get meaning out of the material that is presented before them. This can be promoted through the teachers' ability to package content into units that can easily be mastered and understood by students. Chisholm (2000) explains that teachers should use active learning pedagogical approach where learners are active and visible in constructing their own knowledge. The syllabus suggests guided discussion, jigsaws, group work. role play, dramatization and case studies as methods that should be used to teach the topic. However, MOES (2007) put that teacher should use relevant methods of teaching capable of developing skills and not simply the transmission of knowledge. This calls for adequate preparation in terms of knowledge and teaching skills necessary for the development of skills among students.

Related to the above, Wilmot et al (2005) emphasized that Pedagogy is informed by a progressive educational discourse of human rights and human justice where democracy and emancipation are prioritized. This topic on STDs is sensitive and as such requires a learning environment where there is trust and unity between students and teachers. The above pedagogical approach or model on HIV/AIDS aims at helping students to gain firsthand experience of an approach that they are required to implement in their own schooling. Teachers should ensure that learners are active in the teaching learning situation with good discipline where other people's views are heard and respected. Indeed, the role of the teacher shifts to that of a health worker.

Students should be helped to manage their own learning with the intention of helping themselves and others. The work of the teacher should be to give knowledge to cause behavior change. Wallerstein (1992) put forward three models that can help us in health education. The Behaviouristic Model advocates for the individual looking at the positive and negative forces which play on him or her as they mould behavior. The Social Reaming Model looks at the context of social networks and environment in which the individual operates. In this model, the individual is an agent who plays a role in creating a social and physical environment and lastly the Education for Liberation Model where empowerment and community activities are encouraged. Teachers should therefore help students to understand that they have a responsibility of making decision based on choices they make which will have an impact on themselves and others.

Borawski et al (2015) explains that both teachers and school nurses are effective in delivering reproductive information to students. However, the teaching of technical content like condom use and interpersonal skills like negotiation for reducing high risk behavior may require a set of skills and experiences that teachers may not have and therefore calls for invitation of resource persons. This means that science teachers should be cautious of technical content that may require external assistance from resource persons so that immediate help is sought from out to promote students understanding of taught content so that they become scientifically literate.

This topic being sensitive, it calls for science teachers to adequately plan for activities and methods that will enable students develop life skills which are important to them. WHO (1997) takes a life skill as the ability for adaptive and positive behavior that enables the individual to deal effectively with the demands and challenges of everyday life. Since the youths who are students are growing up, there are changes in their body which may influence their actions hence the acquisition of these life skills helps them to overcome the temptations or rather make informed decisions for a better future. A number of life skills are indicated in the curriculum such as self-awareness, peer resistance, creative thinking, effective communication, self-esteem, problem solving, coping with stress and values like endurance, empathy, cooperation, responsibility, sharing and honesty. Montero (2001) explains that teaching goes beyond what you teach and

encompasses a number of less visible and less socially recognized activities performed by teachers with an empty room such as planning and assessment which relate to activities prepared and analysis of the teachers' knowledge.

The transformative model of PCK identifies the types of knowledge that teachers should have as subject content knowledge, pedagogical knowledge, pedagogical content knowledge and the contextual knowledge (Montero, 2001). Basing on the different types of content to be taught, teachers should use the various types of knowledge to help students understand given concepts which can be achieved through planning as said earlier. The use of relevant examples, illustrations, demonstrations, simulations, mind maps and pictures on addition to invitation of resource persons from the medical department should be embraced for better results.

In order to promote better understanding, students should be exposed to resources which can challenge and promote their learning. This can be physical or online resources which promotes learning by their active participation. Teachers should assess learners' understanding by involving them in community service so that practical activities are conducted like having massive AID/HIV campaigns where they go to sensitize the community on the pandemic and teaching them of their roles in stopping it. Rollnick (2008) stresses that PCK has four areas of knowledge, content knowledge, knowledge of students and general pedagogical knowledge. He adds that the following domains of products of education emerge, content representations, instructional strategies for specific content, curriculum saliency and assessment. STDs are associated with a number of myths which calls for the teachers' focus on their students' misconceptions, learning difficulties, motivation and interests and needs.

As Rollnick et al (2008) clarified; assessment is one of the domain products of education that should be addressed in the teachers' planning by knowing in advance the dimensions of science learning to be assessed and methods that are relevant for the authentic assessment. This topic should be assessed practically to find out if learners have mastered skills, values and attitudes that lead to behavior change. Teachers should involve learners in practical activities using participatory methods like drama and campaigns about AIDS and its effects (MOES & Kyambogo University, 2012). They can utilize forums like assemblies, school visitation days and public campaigns where they work with the community into sensitizing people about ways of controlling and preventing the spread of STDs like AIDS.

In this topic, a number of resources are suggested that help students master the learnt content but at the same time enable them to develop life skills. These include posters, wall charts, straight talk pull outs, resource persons, magazine pull outs, films and videos, resource books and course books. The science teachers should ensure that they integrate technology in the teaching learning process so that abstract concepts are taught through the use of virtual laboratory like the structure and effect of the virus on the body. In other words, what happens inside the body can be brought to the students understanding using simulations and seeing how people appear when they get the virus, after treatment or taking ARVs using the internet resources.

Milton, Berne, Pepad, Hunt & Wight (2001) notes that on addition to content, teachers should consider being non-judgmental, being trustworthy, having a sense of humor, establish relationships, respecting students' rights to choices and being flexible. Since the topic is sensitive, teachers should always be cautious of anything that may arise from the classroom so that people are not discriminated because of their health status. Kontula (2010) supports the above that teachers' knowledge, comfort and tolerance appear to be the characteristics that help students to understand and adapt the education to their own lives. Helleve et al (2011) backs the same that teachers should be friendly, counselors, social workers and control discipline while in class.

#### **4. Relevance of the Topic to Student Teachers**

In many developing countries, young people are not getting information and skills about STDs that can enable them to protect themselves, care for the sick and respond to misconceptions and stigma on HIV/AIDS (MOES, 2007). As such, it makes it hard for them to guide others in the fight against the pandemic in their communities.

The infusion of this topic on STDs specifically HIV/AIDS which has no cure now in the PTE curriculum is relevant as it prepares student teachers by giving them skills that will give them confidence to handle similar content to primary pupils and the community at large. This is promoted through the open discussion that tutors have with student teachers in the college. Swenson (2010) noted that having information about HIV/AIDS which is accurate may help in promoting attitudes that are necessary in engaging students in health care seeking behavior. The approach of using the school as an intervention to reach young people with preventive measures is vital (WHO, 2006).

Maretha & Visser (2005) gives the following as the potential reasons why student teachers should be exposed to the information about HIV/AIDS in their training, acquiring and understanding of the biomedical facts about HIV/AIDS. It is also important in enabling them to be open minded and tolerant to others lifestyles as well as appreciating their rights and responsibilities, understanding issues of poverty, stigma, gender and discrimination in relation to STDs, engaging in experiential learning through visits to community centers, understanding the physical, emotional, economic and social impact of the HIV/AIDS pandemic on teachers, learners and the community, critically analyzing and evaluating learning support materials, participation in simulation games, showing a critical appreciation of their roles and responsibilities and demonstrating an awareness of appropriate ways of responding to HIV/AIDS with learners, fellow teachers, parents or other community members. With the exposure that student teachers have had in learning the topic, they will work together with health workers to solve issues related to STDs, HIV/AIDS in their schools and communities.

#### **5. Insights Gained from the Investigation**

After carrying out careful examination of the topic on STDs, HIV/AIDS, I have come out with the following insights. In order to improve my performance in teaching sensitive issues, science educators should do the following

- Use resource persons to talk to students so as to cause change in behavior.
- Use participatory methods while teaching this sensitive topic.
- Use different resources to help students understand abstract concepts about the topic.
- Always emphasize confidentiality, privacy, elimination of discrimination to avoid stigmatization to students living positively with the STD.
- Always change their roles while working with people affected and infected with the STD like AIDS.
- Have a basic understanding of HIV/AIDS and STDs so that he can identify learners with the same challenges for care and attention
- Be open and tolerant while interacting with students and parents in the school community.
- Always expose students to knowledge about HIV/AIDS and STDs so that they equipped enough to handle students in primary schools

## 6. Conclusion

Having explored more about the topic on STDs, HIIV/AIDS, I have discovered that people affected and infected with STDs like AIDS are always frustrated and as such there is need for knowledge, skills, values and attitudes which people should acquire. This can be promoted through the education or training of teachers who will later transform the community through continued training. It can also be done through the teaching of pupils in schools who are later integrated into the community as behavior change agents. This paper therefore addressed reasons for selection of the topic, strategies for teaching the topic, relevance of the topic to students and insights after exploration.

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