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## **Comparison of HIV/AIDS Knowledge and Attitude of Nursing and College of education Studends in Kumasi**

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### ***Abstract***

*The purpose of the study was to compare HIV/AIDS knowledge and attitudes of nurses and teachers in training. A questionnaire was administered to a cross section of 200 nurses and teachers in training at Kumasi. Respondents were asked to provide information on HIV/AIDS knowledge and attitudes. The data obtained were presented and analysed using the Statistical Product and Service Solutions (SPSS) version 16.0. Study results indicated that the majority of the respondents had a high level of HIV/AIDS knowledge, acceptance and positive attitude towards HIV/AIDS issues and patients. Nurses in training had higher HIV/AIDS mean knowledge score ( $x=14.55$ ) than teachers in training ( $x= 14.23$ ). However, independent samples *t*-test analysis showed insignificant difference between knowledge scores of nurses and teachers in training ( $t(198)=.95$ , significance level=0.05, sig. (2-tailed)=.33). Also, the nurses in training had higher HIV/AIDS mean attitude score ( $x= 14.54$ ) than teachers in training ( $x=14.34$ ). However, independent sample *t*-test showed insignificant difference between attitude scores of nurses and teachers in training ( $t(198) =.60$ , significance level = 0.05, sig (2-tailed) =.54). There was no statistically significant bivariate correlation between knowledge*

*and attitude scores of respondents ( $r(198)=0.01$ , significance level= $0.05$ , sig.(2-tailed)=.89). The study recommends that future HIV/AIDS prevention strategies and campaigns in schools and colleges should focus not only on HIV/AIDS knowledge but also on developing and maintaining safe sexual behavior and positive attitudes towards HIV/AIDS issues and patients.*

**Key words:** HIV/AIDS, knowledge, attitude, comparison, nurses and teachers in training.

### **Introduction**

One major challenge of the world today is the threat of the infection of the Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome (HIV/AIDS), which has become a scourge. HIV/AIDS has already infected many Ghanaians. About 3% of the entire adult population of the country is HIV/AIDS infected. Most of these people do not even know they carry the virus. In 2000, about 330,000 adults and 20,000 children were infected. From the beginning of the epidemic in Ghana and the end of 2000 about 185,000 people have already developed AIDS (HIV/AIDS Ghana, 2001).

The Longman Dictionary of Contemporary English explains the concept of knowledge as the information, skills, and understanding that you gained through learning or experience. According to Denning Steve 201 A frequently used definition of knowledge is "the ideas or understandings which an entity possesses that are used to take effective action to achieve the entity's goal(s). This knowledge is specific to the entity which created it."

The alarming rate of the HIV/AIDS disease and its spread, the magnitude of its infection, the long incubation period, the resultant propensity of spread, the lack of curative therapy and vaccine to prevent spread, mandate the acquisition of thorough knowledge of it. This

acquisition of knowledge on HIV/AIDS is not only required by medical and paramedical personnel, but also by the majority of the population, particularly students.

The increase in the spread of HIV/AIDS transmission is often said to be due to interlinked dynamics of poverty, low level of knowledge, poor attitudes, gender inequality, population mobility and lack of access to basic services like basic health facilities (Skolnik, 2001). UNAIDS (2002) stated that with the inception of the disease in the beginning of the 1980's, it has turned to be a global problem.

Jenda (2001) indicated that, despite the international attention that the HIV/AIDS epidemic has received, knowledge of the disease is not universal among people in sub-Saharan Africa and even among those who know about HIV/AIDS; as such perceptions of personal risk are sometimes at odds with reality. He further stated that most people are still unaware as to how the disease spreads from one person to another and they become infected due to lack of knowledge.

Bankole, Singh, Woog and Wulf (2004) indicated that while at least 90% of women and men aged 15-19 in most countries in the sub-Saharan Africa have heard of HIV/AIDS, substantial proportion in some countries have not. For example, 43-46% of young women in Chad and Niger, 26% in Nigeria and 19-21% in Burkina Faso, Ethiopia, and Mozambique. Also in majority of countries with data, roughly half of the adolescent women and men who have heard of HIV/AIDS think they are at some risk of becoming infected. However, in Ghana, Niger, Nigeria and Tanzania, not more than 3 in 10 young women consider themselves at some risk.

The concept of attitude by the new Encyclopedia Britannica (vol. 1 page 36, 1980) indicates that, it is predispositions to classify objects and events and to react to them with evaluative consistency. Zanna (1981) indicated that when attitudes arise from direct or personal experiences they

are far more likely to endure and to guide actions. In effect, attitudes are described as evaluative because they are judged either good or bad by societal standard and deals directly with a person's predisposition to act or react favourably or otherwise based on factors that are closely related to one's perceptions of things or issues.

Jenda (2001) indicated that, because sexual relations between partners are not openly discussed, little is known about the implication and linkage of unprotected sex to the spread of HIV/AIDS. There are instances where due to lack of knowledge people resort to traditional healers to heal their HIV/AIDS infection, a clearly inappropriate cause of treatment. Jenda stated that false hopes are raised as mythical treatment further aggravate the situation as HIV/AIDS positive men carry out native doctors prescribed cure by having sex with virgins.

Lanier, Pack and DiClement (1999) indicated that, given the prevalence rate of HIV/AIDS in the United States and the fact that condom can prevent the spread of HIV; one may wonder why so many young people are still becoming infected with the virus through sexual contact. One possible reason is that adolescents and the young adults may not know enough about HIV/AIDS to realize that they are at risk. Although this is a plausible reason, past studies hold a different view. For instance, Lanier et al, stated that, knowledge about HIV/AIDS among incarcerated adolescents was quite high. Furthermore, the adolescents knowledge of HIV/AIDS increased from 1998-1999 without known reason to what might have brought about this increase in knowledge. But it can be speculated that it was a result of better HIV/AID education programmes in schools and an increase in the dissemination of HIV/AIDS information among young people.

In another study, Hawa, Munro and Doherty-Poirer (1998) found an increase in Canadian students' knowledge of HIV/AIDS. However, Hawa et

al indicated that knowledge alone is not enough to prompt college students to have safer sex; instead, one must have both knowledge and how to prevent HIV and motivation to use that knowledge to practice safe sex. From these two studies, it is clear that though the youth have high knowledge of HIV/AIDS, this does not necessarily lead to practices that prevent the spread of HIV/AIDS. Therefore, one is tempted to ask, what other factors influence the decision to practice safe sex?

According to Opong and Agyei-Mensah (2004), both sexually active and promiscuous young people in Ghana are more likely to be among the affected target population, because in recent years they have developed more casual attitudes towards premarital sex. If these individuals lack adequate information regarding HIV/AIDS knowledge and attitudes, they might be hit hard by the HIV/AIDS pandemic. Therefore, it is essential to compare HIV/AIDS knowledge and attitudes of Nursing and College of Education Students before planning appropriate intervention measures.

The impact of HIV/AIDS to the socio-economic, demographic and total development of the people in Kumasi is of serious concern. Experts claimed that the disease becomes uncontrollable once it exceeds a 5% prevalence rate. What this implies is that the rising prevalence rate and the rapid spread of HIV/AIDS suggest that the epidemic has not reached its equilibrium in most Ghanaian communities hence the need for continued research on students knowledge and attitudes of the pandemic thereby paving ways of interventions in order to minimize its spread and the social and economic impact. Kumasi is the Regional Capital of Ashanti Region and one of the leading commercial cities of Ghana where all practices such as casual attitude towards premarital sex, influence of mass media on the perception of sex, commercial sex workers and the degradation of traditional values promote the spread and transmission of HIV/AIDS. The recent increase in HIV/AIDS cases in Kumasi has opened a new era of

thought among policy makers and health workers. For instance, the devastating nature of the disease in the form of wiping out of the population through death, fear, sorrow and the scare, with its attendant socio-economic implications is a matter of great concern to the people of Kumasi. (Daily Guide, 2008).

AIDS patients are found in Kumasi just as they are found in most parts of the country. They are usually shunned, ignored and neglected to their own fate, especially when they begin to show the signs and symptoms of the disease. They suffer injustice and die early. Nursing and College of Education students' knowledge about basic facts of HIV/AIDS, its mode of transmission, preventive measures as well as their attitudes towards HIV/AIDS should be assessed since these two groups of students have a potential role to play so far as dissemination of information and imparting of knowledge are concerned.

The purpose of this study was to compare Nursing and College of Education students' knowledge and attitudes of HIV/AIDS in Kumasi.

### **Research Questions**

1. What is the difference between the knowledge of trainee nurses and teachers in training in Kumasi about HIV/AIDS?
2. What is the difference in attitude of trainee nurses and teachers in training in Kumasi towards HIV/AIDS?
3. Is there any relationship between respondents' level of knowledge and their attitudes towards HIV/AIDS?

### **Methodology**

The descriptive survey was used as the research design to assess HIV/AIDS knowledge and attitude of nursing and college of education students in Kumasi. A quantitative approach was used in the study and the survey information was collected at a point in time. The study was carried

out at Komfo Anokye Teaching Hospital Nurses Training College and Wesley College of Education in Kumasi with a total student population of 621 and 680 respectively. The study was only restricted to second year students of both schools which had a target population of 408. This was made up of 212 students from Wesley College and 196 students from Komfo Anokye Nurses Training College. Out of the target population of 480 students, a sample size of 200 was selected. One hundred students were selected from each school using simple random sampling specifically the lottery method.

Data were collected by means of questionnaire which consisted of close-ended questions or statements. The basic structure of the questionnaire was based on true/false/don't know for knowledge items and yes/no for attitude items. The questionnaire was divided into three parts. The first part was designed to record personal attributes of respondents such as age, sex, as well as some general issues concerning awareness of HIV/AIDS. The second part sought information to assess respondents' knowledge on basic facts of HIV/AIDs including general knowledge, mode of transmission, signs and symptoms and preventive measures. The items were 20 in number. The third part required respondents to respond to some items regarding attitudes towards HIV/AIDS. The items were 20 in number and included general attitudes towards HIV/AIDS, attitudes towards transmission routes, preventive policies as well as attitude towards HIV/AIDS patients. The Statistical Product and Service Solutions (SPSS) version 16.0 was used to analyse the data. Obtained data were evaluated by means, standard deviations, independent samples t-test and Pearson correlation. Testing was done using the .05 level of significance.

## **Results**



### **Differences in Knowledge towards HIV/AIDS between Nurses and Teachers in Training**

The knowledge scores of nurses and teachers in training were analysed to obtain the differences.

**Table 1: Means and Standard Deviations of HIV/AIDS Knowledge Scores**

<b>Students</b>	<b>N</b>	<b>Mean scores</b>	<b>Standard deviation scores</b>
Nurses in Training	100	14.55	2.60
Teachers in Training	100	14.55	2.08
<b>Total</b>	<b>200</b>	<b>14.39</b>	<b>2.36</b>

To ascertain the differences in HIV/AIDS knowledge between nurses and teachers in training, the means of the two different groups were compared. From Table 1 above, the mean score of nurses in training is higher than that of teachers in training. However, independent samples t-test analysis showed insignificant difference between knowledge scores of nurses and teachers in training ( $t(198) = .95$ , significance level = .05, sig. (2-tailed = 33).

**Table 2: Table for Computation of t – test of Knowledge Scores**

<b>t</b>	<b>df</b>	<b>Significance level</b>	<b>Sig. (2tailed)</b>
.95	198	.05	.33

### **Differences in Attitude towards HIV/AIDS between Nurses and Teachers in Training.**

The attitude scores of nurses and teachers in training were analysed to obtain the differences.

**Table 3: Means and Standard Deviations of HIV/AIDS Attitude Scores**

<b>Students</b>	<b>N</b>	<b>Mean scores</b>	<b>Standard deviation scores</b>
Nurses in training	100	14.54	2.43
Teachers in training	100	14.34	2.27
<b>Total</b>	<b>200</b>	<b>14.44</b>	<b>2.35</b>

To ascertain the differences in HIV/AIDS attitudes between nurses and teachers in training, the means of the two different groups were compared. From Table 2 above, the mean score of nurses in training is higher than that of teachers in training. However, independent samples t-test analysis showed insignificant difference between attitude scores of nurses and teachers in training ( $t(198) = .60$ , significance level = .05, sig. (2-tailed) = .54).

**Table 4: Table for Computation of t – test of Attitude Scores**

<b>t</b>	<b>df</b>	<b>Significance level</b>	<b>Sig. (2- tailed)</b>
60	198	.05	.54

### **Relationship between Respondents' Level of Knowledge and their Attitude towards HIV/AIDS**

The Pearson product moment correlation coefficient ( $r$ ) was computed from the knowledge and attitude scores to establish the relationship. Study result indicates that there is no statistically significant bivariate correlation between HIV/AIDS knowledge and attitude scores of respondents ( $r(198) = .01$ , significance level = .05, sig. (2-tailed) = .89). Thus, it can be stated that there is no relationship between respondents' level of knowledge and their attitudes towards HIV/AIDS.

**Table 5: Table for Computation of Pearson Product Moment correlation**

<b>Co- efficient (r) of Knowledge and Attitude Scores</b>			
<b>r</b>	<b>df</b>	<b>Significance level</b>	<b>Sig.(2-tailed)</b>
.01	198	.05	.89

**Discussion**

The results of the analysis revealed that most students had a good to excellent knowledge of HIV/AIDS. The total HIV/AIDS knowledge score ranged from 8-19. When the sample was stratified into low (scores of 0-6), moderate (scores of 7-13) and high (scores of 14-20), the data showed that although some (n = 72, 36%) had moderate scores, none had low scores. The majority had high knowledge (n=128, 64%). Even though when compared, the nurses in training had higher HIV/AIDS mean knowledge score than teachers in training but the difference is insignificant. Previous studies have reported high HIV/AIDS knowledge among students and adolescents (Lanier, Pack & Diclement, 1999; Hawa, Munro & Doherty-Poirer, 1998; Xiaodong et al, 2007).

The implication for educational practice so far as the foregoing findings are concerned is that, respondents high level of knowledge of HIV/AIDS sources, mode of transmission and prevention methods could mean that, in practice they would be able to impart and disseminate HIV/AIDS knowledge to students and the general public. This will go a long way to overcome the ignorance and misconceptions people have on the disease which is the essential first step towards achieving behavioral change which for now remains the most important strategic option for control of the epidemic. Therefore, in our present situation, HIV/AIDS prevention largely depends on health education which should target on knowledge acquisition and application.

The results from the study demonstrated that most students had tolerant and positive attitudes towards HIV/AIDS issues, policies and patients. The total HIV/AIDS attitudes score ranged from 10-19. When the sample was stratified into negative attitudes (scores of 0-10) and positive attitude (scores of 11-20), the data show that although some had negative attitudes towards HIV/AIDS ( $n = 5, 2.5\%$ ), the majority had positive attitudes ( $n=195, 97.5\%$ ). The comparison shows that the nurses in training had higher mean attitude score than teachers in training. Previous studies have reported positive attitudes towards HIV/AIDS ( Bekta, & Kulaka, 2007; Xiaodong et al, 2007). Bekta & Kulaka stated that feelings of pity, empathy and willingness to care for people living with HIV/AIDS were indicated by majority of respondents while Xiaodong et al also stated that respondents generally expressed positive attitudes towards people living with HIV/AIDS.

These findings have a number of implications for educational practice. Among them is that, the nurses and teachers in training tolerant and positive attitudes towards HIV/AIDS issues, policies, prevention methods and patients in general will go a long way to inculcate in students and the general public the need to have a positive attitude towards the disease thereby eradicating the stigmatization and the discrimination suffered by people infected with the disease.

The study found out that there is no statistically significant bivariate correlation between knowledge and attitude scores of respondents. Although this finding does not support any of the previous studies revealed in the literature, however, it will increase the research base for HIV/AIDS. Also, the lack of a standardized survey to measure nurses and teachers in training knowledge and attitudes towards HIV/AIDS prohibits researchers from making true comparisons across samples.

## Conclusion

From the findings of the study it can be concluded that the high performance of respondents on both the HIV/AIDS knowledge and attitude items is attributed to the inclusion of HIV/AIDS education in the curricula of nurses and teachers in training. The high quality of HIV/AIDS education received by students can also play a role in students' good performance in the study. Besides, a favourable fact which cannot be neglected is that today's students live in an era of mass information in which they have easier access to HIV/AIDS information compared with decades ago.

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