FIRST YEAR UNIVERSITY STUDENTS’ KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS HIV/AIDS

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Abstract
The main purpose of the study was to investigate first year students’ knowledge, attitude, and practices towards HIV/AIDS. In achieving this objective, the descriptive research design was adopted. The study participants comprised 249 level 100 students. A questionnaire developed by Carey and Schroder (2002) was used to collect data on students’ HIV/AIDS knowledge. A researcher-designed instrument was used to collect data on students’ attitudes towards people living with HIV/AIDS and practices regarding HIV/AIDS. Both descriptive and inferential statistics were used for the analyses. The findings of the study revealed that the respondents’ knowledge level on HIV/AIDS was low and their practices regarding the disease were also poor. However, the respondents had positive attitudes towards people living with HIV/AIDS. The study recommends HIV/AIDS education course should be incorporated into the university’s curriculum to help increase students’ knowledge on HIV/AIDS and also enhance their practices.

Keywords: HIV/AIDS, Attitude, Knowledge, Practice, University Students
Introduction

Since the early 1980s, Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) have tightened their deadly grip on the African continent. According to the Joint United Nations Programme on HIV and AIDS (UNAIDS, 2017), HIV/AIDS continues to be a major global public health issue, having claimed more than 35.4 million lives since the start of the epidemic.

HIV attacks the immune system and weakens an individual’s defence system against infections. As the virus destroys and damages the function of immune cells, infected individuals gradually become immune deficient, resulting in increased vulnerability to a wide range of infections and other diseases that people with healthy immune systems can fight off (Mayaphi, Martin, Quinn, Laeyendecker, Olorunju & Tintinger, 2016; UNAIDS, 2018). According to Mayaphi et al., (2016) people with early HIV infection contribute significantly to the transmission of HIV, as they have very high viral loads (VLs) in their blood and genital secretions, and may not develop any of the clinical illnesses that define the full-blown disease of AIDS. The authors opine that most of these individuals may not be aware of their HIV status and so can pass the virus on to a new cohort of persons.

AIDS is the most advanced stage of HIV infection and it develops from two to 15 years after the presence of the virus. People with AIDS are easily prone to other infections, but this depends on the individual’s immune system (WHO, 2014a). Nonetheless, AIDS infected persons with a low cluster of differentiation 4 (CD4) count, find it difficult to fight most of the opportunistic infections (hepatitis C, fungal infections, histoplasmosis and parasitic) associated with the disease (Dayiyam & Iroezindu, 2013).

According to WHO (2017), the African region is the most affected region with 25.6 million people living with HIV as of 2016. The African region also accounts for almost two thirds of the global total of new HIV infections.

Maimaiti, Shamsuddin, Abdurahim, Tohti and Maimaiti (2010) conducted a study to assess the knowledge, attitude and practice regarding HIV/AIDS among University students in Xinjiang. The results revealed that, the majority of the participants had higher knowledge in HIV/AIDS. The findings of the study further revealed the majority (76.7%) of the participants had negative attitudes towards HIV/AIDS and patients living with HIV/AIDS. The study concluded
that HIV/AIDS health education efforts should be intensified to change attitude and practice among university students in Xinjiang, especially among newly enrolled students.

Further, Mbelle, Setswe, Sifunda, Mabaso and Maduna (2014) conducted a study on HIV/AIDS-related knowledge, attitudes and behaviours of students and staff at South African Technical and Vocational Education and Training (TVET). The findings revealed that knowledge about HIV transmission was very high and most student participants and staff participants also had positive attitudes towards people living with HIV (PLHIV). The study concluded that students and staff at TVET colleges generally had positive knowledge of HIV and positive attitudes toward PLHIV.

In another study, ElKalmi, Al-Shami, Alkoudmani, Al-Syed, Al-Lela and Patel (2015) researched on knowledge, attitudes and risk perceptions towards HIV/AIDS among health sciences students in a public university in Malaysia. The findings of the study revealed that students in the different healthcare professions had inadequate knowledge about transmission and treatment of HIV/AIDS. Their attitude towards people living with HIV/AIDS was also poor. The study concluded that including HIV/AIDS-related education in the curriculum for healthcare students can increase their awareness about HIV/AIDS and foster a positive attitude towards HIV/AIDS prevention.

Finally, Gemeda, Gandile and Bikamo (2017) assessed the level of knowledge, attitude and practice of HIV/AIDS among Dilla University students in Ethiopia. The findings revealed that respondents exhibited a clear level of knowledge on HIV/AIDS. With regards to attitude, the study confirmed that the majority (58%) of the respondents had positive attitude towards helpful facts and preventive strategies of HIV/AIDS. Regarding practice, the majority (92%) of the respondents exhibited positive practices towards HIV/AIDS transmission. The review of literature revealed that the majority of studies conducted to assess students’ knowledge, attitude and practice on HIV/AIDS were conducted in countries outside the context of Ghana, hence this study fills the gap in Ghanaian literature.

A report by WHO (2014b) indicated that the elimination of the disease in Ghana seemed to be progressing rapidly; but unfortunately, it increased in 2016 with a prevalence rate of 2.4 percent as against 1.37 percent and 1.8 percent in 2014 and 2015 respectively. Further, a report by the Ghana AIDS Commission revealed that the figure increased from
12,000 new infected cases in 2015 to 20,148 in 2016 (GAC, 2017). This increase, according to the Commission, is a matter of concern because Ghana has recorded a significant gain in the target years of ending the pandemic (GAC). Given the chronic under reporting and under-diagnosis in Ghana, the actual cases of HIV/AIDS are likely to be more than reported.

A UNAIDS (2017) report indicated that global progress made in improving knowledge and creating awareness of HIV status in 2016 declined. The gap in knowledge of HIV status was found to be largest among the young people. The report further stated that knowledge of HIV status should be the first step in curbing the pandemic and as such when it is low, subsequent efforts to enrol people living with HIV into care, and also to initiate and sustain treatment are affected. UNAIDS (2017) and GAC (2017) have both identified the importance of knowledge in combating the pandemic. Thus, knowledge is seen as one of the major strategic tools that can be used to narrow or eliminate the negative perception people have towards the disease. However, in Ghana, campaign on boosting peoples’ knowledge, positive attitude and helping people become aware of their HIV/AIDS status and living healthy life has gone down significantly (GAC, 2017). The GAC recommended the need to increase education on the disease at the various institutions to help suppress the risk factors associated with the disease and the fear and prejudice that lie at the core of HIV/AIDS.

Prior to the GAC (2017) recommendation, the University of Cape Coast (UCC) during the 2009/2010 academic year, mounted a course on HIV/AIDS Education in order to increase students’ knowledge and to prevent HIV/AIDS infection. It was a mandatory course for undergraduate students. Unfortunately, the UCC withdrew the HIV/AIDS Education course from its curriculum in the 2016/2017 academic year. This decision was based on a proposal by the National Accreditation Board of Ghana that every tertiary institution must run a programme in Critical thinking and logical reasoning. With the HIV/AIDS Education course, having been in existence for almost half a decade, the management of the University assumed that students might have gained enough knowledge on the pandemic and therefore replaced it with the Critical thinking and logical reasoning course.

Undoubtedly, these students will leave as another batch comes in. Therefore, one cannot have enough knowledge as students are always in transition through the University. Further, most of these
students are very young, very naive and coming from an environment which is restricted to an open environment. Furthermore, most of them are highly energetic and may have a high rate of premarital sexual activity with a number of sexual partners due to newly found freedom and curiosity. If the students are not exposed to best practices regarding the HIV/AIDS pandemic, they are likely to be infected and those who are infected and are not aware of their status are also likely to infect others. Negeri (2014) asserts that the nature of university students, their age, ambition, experience of new events and other related driving issues, increase their risk of exposure to HIV/AIDS. Since one of the basic reasons to acquire knowledge in HIV/AIDS is to improve the chances of self-protection, the decision taken by the university no longer to mount the HIV/AIDS Education course in spite of its importance in combating the disease provided the impetus for this study.

The main objective of the study was to investigate UCC first year students’ knowledge, attitude towards people living with HIV/AIDS and practices regarding HIV/AIDS. The specific objectives of the study were to:

i. Assess students’ knowledge level on HIV/AIDS.

ii. Examine students’ attitudes toward people living with HIV/AIDS.

iii. Examine students’ practices regarding HIV/AIDS.

Methods

The descriptive research design was adopted for the study. The target population consisted of all undergraduate first year students of UCC during the 2016/2017 academic year, totalling 4985 (Student Management Information System, 2017). Malhotra and Birks (2007) opine that a study of such nature with a large homogeneous population requires a sample of two to five percent of the population. Based on this recommendation, five percent of the population (249) was selected to guarantee a larger sampling size.

The 249 participants were sampled from one of the liberal course classes in the University. The reason for selecting a liberal course was that it is a mandatory course for all first-year students in the University irrespective of their programmes. The criterion used for the selection of the sample was students’ class attendance list. Students from the four colleges of the mainstream in the University, who
enrolled in the liberal course were grouped under the various colleges and the simple random sampling technique was used to select the participants. In order to ensure an equal representation of participants from each of the four colleges, the college whose students were less than 62, had all the students purposively sampled for the study. Only one college fell into this category. Then after, the simple random sampling technique, using the lottery method, was used to sample students from colleges whose students were more than 62. Two hundred and forty-nine students were sampled out of 386 students in a liberal class for the study.

The questionnaire was the main data-collection instrument used in collecting the data. The questionnaire was made up of four sections: A, B, C and D. Section A was used to collect respondents’ bio-data. Although the variables in the bio-data were not considered in the final analyses they were used to aid in the discussion. The HIV Knowledge Questionnaire (HIV-KQ-18 version) developed by Carey and Schroder (2002) was adapted for data collection under section B. Sections C and D were developed by the researchers through extensive literature reviews and issues identified from students’ HIV/AIDS Education Module and used to collect data on respondents’ attitudes toward people living with HIV/AIDS, and practice regarding the HIV/AIDS respectively. Section B had 18 items put under a binary scale: ‘Yes’ and ‘No’. Section C had nine items put under a 3-point Likert-type scale. ‘Yes’, ‘Not Sure’ and ‘No’, and Section D had six questions put under a binary scale: ‘True of me’ and ‘Not true of me’. Before the instruments were administered, all items were subjected to a pilot-test to test for reliability of the instruments using 10 percent of the sample size for the full study (n = 25). This sample size was based on Connelly’s (2008) sample size determination for pilot-testing. The participants subjected to the pilot-test were selected from one of the liberal courses which excluded participants in the main study. The Cronbach’s alpha coefficient was used to measure internal consistency of the items on each of the Likert-type scale. After the analyses of the data, the internal consistency ascertained through the Cronbach Alpha for knowledge on HIV/AIDS = .84. This was consistent with the initial test - retest of .75 and .89 which according to authors exceeded the .70 as recommended by Nunnally and Berstein (as cited in Carey & Schroder, 2002). Internal consistency ascertained through the Cronbach Alpha for attitude towards people living with HIV/AIDS = .72, while
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practices regarding HIV/AIDS = .73. These coefficients were above .70 which, according to Streiner (2003), was reliable, hence the instrument was used to collect the data.

Prior to the collection of the data, permission was sought from the course lecturer and a time for the collection of the data was agreed upon. The researchers with the help of the two research assistants distributed the copies of the questionnaire to participants during the liberal class. Each researcher was assisted by a research assistant in two separate rooms. Participants answered the copies of the questionnaire and returned them to the researchers during the lecture period. The average time used to respond to items on the questionnaire was 25 minutes. At the end of the data collection period, the researchers were able to collect a complete and accurate data from all the 249 participants, representing 100 percent response rate.

Both descriptive and inferential statistics were used to analyse the research data. The 18 items on the HIV/AIDS Knowledge were put under a binary scale: Yes = 1, and No = 0. An agreement to a negative statement was deemed as poor knowledge. The nine items under the Likert-type scale (respondent's attitude towards people living with HIV/AIDS were put under a 3-point Likert-type scale. Yes = 2, Not Sure = 1 and No = 0. All items were worded in the negative. An agreement with a negative statement meant that the respondent had a negative attitude towards people living with HIV/AIDS. However, before analysing this objective, the middle point responses on the Likert-type scale for “Respondents’ attitude towards people living with HIV/AIDS were collapsed and placed under ‘No’ responses, making the scale, a binary scale. The Likert-type scale was initially used based on the view of Velez and Ashworth (2007), which states that, respondents select midpoint category when they evaluate a question negatively. In the same vein, for respondents having encountered a situation and being undecided or not truly sure about how they perceived the interaction, was deemed by the researchers as a negative trait or a negative attitude. However, the use of middle point on the Likert-type scale was used to reduce cognitive overload on respondents (Sturgis, Roberts & Smith, 2014). Finally, the six items measuring respondents’ practices regarding HIV/AIDS classified as ‘True of me’ and ‘Not true of me’ were put under a binary scale. An agreement to a negative trait was deemed as a negative practice.
To be amenable for inferential statistics analysis, participants’ scores on knowledge level on HIV/AIDS were also computed and re-categorised into two groups, high and low knowledge level. Out of the 18 items, anyone who scored 9.0 and above was classified as scoring ‘1’ and have high level of knowledge on HIV/AIDS. Any participants who scored below 9.0 was classified as scoring ‘zero’ which represents low knowledge level on HIV/AIDS. Further, a respondent who had a mean score \((M \leq .5)\) on the binary scale of “attitude towards people living with HIV/AIDS” was classified as having a negative attitude towards people living with HIV/AIDS and a respondent who has a mean score \((M > .5)\) was classified as having a positive attitude towards people living with HIV/AIDS. Finally, a respondent who had a mean score \((M \leq .5)\) on the binary scale of “practice regarding HIV/AIDS” was classified as having a poor practice regarding HIV/AIDS and a respondent who had a mean score \((M > .5)\) was classified as having a good practice regarding HIV/AIDS. Data were analysed using the Statistical Product and Service Solution (SPSS) version 21.

The researchers also gave due consideration to the legal framework governing the conduct of this research. All participants were assured of their anonymity and as such their names and the liberal course of study were excluded from the study. Also, participants were assured that, any information provided would be solely used for the purpose of the study. Participation in the research was also voluntary and participants were free to refuse or withdraw from the study at any time with no coercion.

**Results**

The one sample t-test was used to analyse the first objective which assessed students’ knowledge level on HIV/AIDS. The result shows that respondents’ knowledge level on HIV/AIDS is low. The result is shown in Table 1:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>N</th>
<th>t-value</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>8.24</td>
<td>2.60</td>
<td>249</td>
<td>-4.045</td>
<td>189</td>
<td>.001</td>
</tr>
</tbody>
</table>
Result from Table 1 shows that respondents’ knowledge level about HIV/AIDS is low \([ t (189) = -4.045, p = .001 ]\). This is more evident when the calculated mean \((M = 8.24)\) is compared with the Criterion mean of \((M = 9.0)\). In this case, the calculated mean \((M = 8.24)\) is lesser than the Criterion mean of 9.0. Hence, respondents’ knowledge level about HIV/AIDS was relatively low.

Table 2 depicts the results of respondents’ attitude toward people living with HIV/AIDS.

<table>
<thead>
<tr>
<th>Statement</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If one of your relatives who is HIV positive becomes ill, would you be willing to care for him/her in your house or community?</td>
<td>0.93</td>
<td>0.26</td>
</tr>
<tr>
<td>If your friend is HIV positive, would you continue your friendship with him or her?</td>
<td>0.89</td>
<td>0.31</td>
</tr>
<tr>
<td>If a shopkeeper or food seller is HIV positive, would you buy items from him or her?</td>
<td>0.61</td>
<td>0.50</td>
</tr>
<tr>
<td>If a student is HIV positive, should she or he be allowed to continue her or his studies in your school?</td>
<td>0.90</td>
<td>0.31</td>
</tr>
<tr>
<td>If a teacher is HIV positive, should she or he be allowed to continue his or her teaching in your school?</td>
<td>0.88</td>
<td>0.33</td>
</tr>
<tr>
<td>Will you make a physical contact with somebody living with HIV?</td>
<td>0.74</td>
<td>0.44</td>
</tr>
<tr>
<td>Will you eat from the same plate or drink from the same glass with someone infected with HIV?</td>
<td>0.67</td>
<td>0.47</td>
</tr>
<tr>
<td>Will you wear the clothes and share the same clothing with someone infected with HIV?</td>
<td>0.24</td>
<td>0.49</td>
</tr>
<tr>
<td>Will you shake hands with an HIV/AIDS person?</td>
<td>0.83</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Mean of means</strong></td>
<td><strong>0.74</strong></td>
<td><strong>0.39</strong></td>
</tr>
</tbody>
</table>

Results from Table 2 indicate that respondents had a positive attitude towards people living with HIV/AIDS. This is shown by the mean of mean score 0.74 which is above the average mean score of 0.5. However, the responses of the respondents to the statement, “Will you wear the clothes and share your clothing with someone infected with HIV?” show that respondents to some extent have a stereotyped attitude towards people living with HIV/AIDS.
Table 3 presents the responses of respondents’ practices regarding HIV/AIDS.

### Table 3: Respondents’ practices regarding HIV/AIDS

<table>
<thead>
<tr>
<th>Statement</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>My partner needs to be tested for HIV before I will have sex with him/her.</td>
<td>0.61</td>
<td>0.49</td>
</tr>
<tr>
<td>I enjoy unprotected sex than the one with the condom.</td>
<td>0.32</td>
<td>0.47</td>
</tr>
<tr>
<td>I share razor blade with my partner.</td>
<td>0.14</td>
<td>0.35</td>
</tr>
<tr>
<td>I share the same injection equipment with my friends.</td>
<td>0.01</td>
<td>0.30</td>
</tr>
<tr>
<td>It is necessary for me to go for an HIV voluntary test to know my status.</td>
<td>0.27</td>
<td>0.45</td>
</tr>
<tr>
<td>I dislike the use of a condom during sexual intercourse.</td>
<td>0.27</td>
<td>0.44</td>
</tr>
</tbody>
</table>

**Mean of means** 0.27 0.42

Result from Table 3 indicate that respondents exhibited negative practices against HIV/AIDS transmission. This is shown by the mean of mean score 0.27 which is below the average mean score of 0.5. However, the responses of the respondents to the statement, “My partner needs to be tested for HIV before I have sex with him/her.” show that respondents to some extent valued their lives. However, only ($M = 0.27, SD = 0.45$) of a mean of mean score of 0.5 were willing or deemed it necessary to know their HIV/AIDS status.

**Discussion**

The findings of the current study complement previous findings. However, there were some inconsistencies in the findings compared to other studies. Participants’ HIV/AIDS knowledge was low. This finding on students’ HIV/AIDS knowledge, is inconsistent with the findings of Maimaiti et al., (2010); Mbelle et al. (2014) and Gemeda et al., (2017) where the majority of respondents had significantly higher knowledge scores in HIV/AIDS. However, the finding is consistent with that of ElKalmi et al. (2015).

With regard to students’ attitude towards people living with HIV/AIDS, respondents exhibited positive attitude towards persons living with HIV/AIDS on open activities, like living with them in the same house or community, having a cordial friendship with them,
allowing persons living with HIV/AIDS to operate in their school compound as workers or students, just to mention a few. Perhaps, this positive attitude towards people living with HIV/AIDS may be due to socio-cultural influences or other education received on HIV/AIDS before entering the university. This finding could be linked to the finding of Gemeda et al. (2017) and Mbelle et al. (2014) where the majority of the respondents were willing to be associated with or share a space with people living with HIV/AIDS. However, the finding contradicts that of ElKalmi et al. (2015) and Maimaiti et al. (2010) which revealed that respondents had negative attitude towards people living with HIV/AIDS. Nevertheless, there was an element of stigmatisation in respondents’ attitude. This was revealed when the majority of the respondents stated that they will not want to wear and share clothes with an HIV infected person. This response may be due to societal perception regarding people living with HIV/AIDS.

Regarding practice, respondents exhibited negative practices against HIV/AIDS transmission. This finding corresponds with the finding of ElKalmi et al. (2015), but contradicts that of Gemeda et al. (2017), which revealed that respondents had good practice towards HIV/AIDS. Further, there was an indication that the majority of respondents were not willing to know their HIV/AIDS status. This, according to Mayaphi et al. (2016), is a major cause of spreading the virus because persons with the virus who are unaware of their status may spread the disease unknowingly. Considering the fact that huge investment is made towards the education of persons in the University, it may be necessary for the Academic Board of the university to reintroduce the course on HIV/AIDS in order to educate students about the disease. This premised on the report of UNAIDS (2017), that global progress made in improving knowledge and creating awareness of HIV status in 2016 declined and was lower than the progress made in other aspects of the disease, with gaps in knowledge of HIV status largest among young people. There is therefore the need to fight the pandemic through education that focuses on enhancing students’ knowledge, attitude and practices in HIV/AIDS.

Conclusion and Recommendations

The results show that, the knowledge level of first year undergraduate students of UCC on HIV/AIDS was low. However, their attitudes towards people living with HIV/AIDS to some extent were
encouraging. The findings further show that respondents engaged in practices that predisposed them to contracting the HIV/AIDS virus.

The study recommends that, management of the University should consider remounting the HIV/AIDS education course alongside the course on Critical thinking and logical reasoning. In particular, first year students could be targeted because they are new at the University and are susceptible to being influenced by any negative campus lifestyle. The students could be given both the opportunity to think critically and to avoid any tendency likely to affect their health status negatively.

Further, the study recommends that, the Counselling Centre of the University should increase awareness on practices regarding HIV/AIDS through dissemination of information on leaflets, organise seminars for first years at the various halls of residence and also invite resource persons from the health services to give students talks with regard to the disease.

References


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