

## African University Students's Gender Differences in HIV/AIDS Knowledge

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### Abstract

*African university adolescents gender differences in HIV/AIDS knowledge investigated whether there are differences in female and male participants in their knowledge of HIV/AIDS. The sample of 366 respondents of males and females was selected from universities in Kenya, South Africa and Tanzania. The quantitative method based on frequency, percentage, t-test and probability was used for data analysis. The results showed that for both the Kenyan and South African participants, there was parity in their knowledge of HIV/AIDS. As for the Tanzania sample, there were gender differences in their knowledge of HIV/AIDS; with male participants being more informed about HIV/AIDS than their female counterparts. In conclusion, it was argued that given the importance of knowledge regarding HIV/AIDS transmission, there is need to close the gender differences gap between male and female respondents in Tanzania.*

**Keywords:** HIV/AIDS, African students, gender differences, knowledge/awareness, Kenya, South Africa, and Tanzania

### 1. Introduction

It has been reported frequently that, women are more likely to contract HIV than is the case with men (Phiri, 2004; Denis, 2003; Clifford, 2004). Denis (2003) asserts that HIV/AIDS is a gender issue given that marriage is instrumental in contracting HIV/AIDS. Among adolescents of 15-24 years, girls are five times more likely to be infected more than the boys. Married women contract HIV/AIDS more than any other group in the population. According to Clifford (2004), women constitute 50% of all people suffering from HIV/AIDS globally. Some of the reasons for women being more vulnerable than other groups in the populations are as follows: poverty, need to provide for children. At risk of abuse, lack of option for negotiating safe sex, culturally discriminated, hormonal changes, vaginal microbial ecology and physiology and higher presence of sexually transmitted diseases.

Burgoya and Drumond (2008) report that comparatively, women in Africa are more affected with HIV/AIDS than is the case with their counterpart the men. The reasons for such gender difference are many and are as follows: poorly educated, those with rural background, those who are economically dependent on men; taboo imposed on them by their culture regarding discussion based on sexual matters and health, submissive aspect in relationship with men; men dominant role in sexual decision making. All these factors contribute to women being less informed about HIV/AIDS. Hence, making them more susceptible to HIV/AIDS infection.

According to Gahagan (2012) her investigation in Canada indicates that there is an increase in the number of women contracting HIV/AIDS which constitutes the reason for further investigation into gender inequality in the contraction of HIV/AIDS. She goes on point out many societies place the gender role of women in a position which makes it rather difficult for women to protect themselves against HIV/AIDS transmission. For examples, making it difficult to practice safer sex and being unable to avail themselves with HIV prevention services; women have less access to education, income, employment. In the long run these hold the women's limitations in their negotiation for safe sex and access to prevention to available prevention services

### 2. Literature Review

Terry, Mhloys, Masavaure and Adlis (2005) investigated gender differences in HIV/AIDS knowledge among 933 university students in Zimbabwe on the basis of cultural, sociological and economic variables. Male participants expressed the views that: they had the right to dominate women, and that they were the ones to decide the use of condom. In contrast, the women participants acknowledged the gender cultural attitude towards women and went further by asserting their support for women's rights to sexual activity.

In a similar investigation, Ugbona, Kooffeh and Nwauche (2011) examined gender differences in students'

knowledge of HIV/AIDS on a sample of 1748 secondary school students aged 12-19 years of age drawn from 12 schools. Their knowledge was high as it stood at 80%. However, there was no gender difference in their knowledge of HIV/AIDS

Montosh, Asagwara and Meriamu (2011) carried out a study of 2399 university students in Lagos, Nigeria, in which participants had a moderate knowledge of HIV/AIDS. It was also reported that female participants were predisposed to contracting HIV/AIDS, because of their engaging in high risk sexual behaviour for financial reasons. In terms of gender difference in HIV/AIDS, no difference of significance was observed.

According to a cross-national survey carried out in Ethiopia, Mali and Nigeria 97-98% of men had a knowledge of HIV/AIDS compared to 86-90% for women who were just as knowledgeable. Similar survey carried out in Kenya and Madagascar showed gender difference showing that men showed more than women. The study carried out in Rwanda, however, showed no gender difference in HIV/AIDS between females and males.

Durojaiye (2011) refers to HIV/AIDS is one of the most dreaded and devastating diseases in human recent history. It is therefore argued that behaviour change on the part of men and women presents the most effective way of controlling transmission and infection of HIV/AIDS. In a sample of 315 students consisting of both married and single participants. Their knowledge of HIV/AIDS was very high. It was observed that participants who were married were more knowledgeable than those who were single. On the other hand, a statistical analysis the gender differences between male and female participants were non-significant.

In Malaysia, Wong, Chin, Low and Jaafar (2008) young adults knowledge of HIV/AIDS was moderate given that they had of 4.6 out of 17 points. The majority of participants knew what HIV/AIDS was about. There were gender differences with female participants showing higher scores than male participants. Mundingayi, Lutala and Mupenda (2011) in Kinshasha, Democratic Republic of Congo, advance the argument that knowledge has a prominent role as predictor of HIV risk behaviour. As a result of HIV/AIDS knowledge, the following are likely to hold true: deferred onset of sexual relationship; consistent use of preventive measures during sexual intercourse; reduction in the number of sexual partners; increase in relating to HIV/AIDS infected persons positively. Their investigation of HIV/AIDS knowledge was high for both female and male participants. As such, there was no gender difference observed

In the USA Long and Adams (2012) investigated a sample of 298 male and 155 female inmates and their knowledge of HIV/AIDS. The results showed that there was parity in their knowledge of HIV/AIDS. Such results did not confirm the hypothesis predicting a difference in favour of men expected to outperform women respondents. In a related study, Robertson, Stein and Baird-Thomas (2008) conducted a study of 523 (328 males and 195 females). The study aimed at measuring: AIDS knowledge, pro-condom peer influence, condom attitudes, risk perception, condom use self-efficacy, vaginal intercourse frequency and frequency of condom-protected vaginal intercourses. The results showed that in the case of men, the following served as predictors of condom use: peer influence, positive attitudes, and condom self-efficacy. As for women participants, condom use was predicted by: peer influence, higher perceived risk infection risk; more positive attitudes toward condoms and more self-efficacy and less condom use.

In a comprehensive response to the HIV/AIDS epidemic in Jamaica, Figueroa, Duncan, Byfield, Harvey, Gere, Hylton, Kong, Hamer, Williams, Carrington and Braithwaite (2008) describe HIV/AIDS rates in Jamaica as being higher among men than in women which is attributed to: men's heterosexual behaviour involving high sexual risk behaviour, given that they have multiple partners, involvement in commercial sex and HIV rates being high among men having sex with men. The reports further point out that, while HIV/AIDS infection among women is on the decline, for men it is on the increase. This is attributed to women practicing safer sex than men; assessing HIV testing and continued high rates of HIV among MSM (Figueroa et al., 2008). It is nevertheless important to note that among adolescents, HIV/AIDS transmission is immensely dramatic. With adolescents the rates of HIV/AIDS among females is three times higher than males (Figueroa et al., 2008).

In Nigeria, Oladokun, Jiboye, and Akichemi (2010) conducted an investigation on in-school students' HIV awareness and sexual behaviour. They preambled their presentation by pointing out that knowledge about HIV and sexual practices plays an important role in the prevention of HIV/AIDS transmission. This served as motivation for pursuing the assessment of school adolescents. The results were that based on 1045 participants with a distribution of 501 males and 544 females, 02% had a good knowledge of HIV/AIDS. Statistical analysis of gender difference showed that their knowledge was at par, as there was no statistically significant difference between male and female respondents.

Ojo (2011) assessment of HIV/AIDS knowledge and risk of 433 undergraduate students in Nigeria did not find any gender difference in the participants' HIV/AIDS knowledge. However, gender difference was observed on account of age, as older participants performed better than the younger respondents.

Ogbuji and Okafor (2010) report on their study of 300 male and female secondary school adolescents selected from 11 schools knowledge and awareness. Their level of knowledge was very high. Similarly, their knowledge of transmission, prevention and control was just as high. There was no significant gender difference observed. Such finding

was not in alignment with the finding of Dalzel-Ward (2002) who reported that females were more knowledgeable than male respondents in the same country.

Aimed at assessing participants knowledge of HIV/AIDS and their source of information, Bamise, Bamise and Madigba (2011) investigated 592 secondary school adolescents selected from 5 schools in Nigeria. The response from 92.6% participants indicated that they were aware of the existence of HIV/AIDS before they administered the questionnaire. Of these participants, there were more females (95.1) than males (89.9).

Fraim (2012) investigated knowledge level and misconception about HIV/AIDS among 1925 university students in Turkey. Almost the entire sample claimed that they had heard about HIV/AIDS. In terms of knowledge of HIV/AIDS, it was average to moderate. The gender difference on level of knowledge and misconceptions was statistically significant. Men were able to identify people who were HIV/AIDS positive; secure HIV information from health care workers, internet, friend and associates more than in was the case with women participants. In terms of defining HIV/AIDS women excelled compared to their counterpart. It was further shown that in some questions/statements women performed better than men, whereas in others men outperformed women.

In Afghanistan, an investigation of 1054 university students drawn from four universities examined the level of HIV/AIDS knowledge, perception, attitudes and practices and gender differences (Mansoor, Fungladda, Keewkungwa, L and Wongwit, 2008). It was observed that there was gender parity in attitudes and general awareness. On HIV/AIDS knowledge, female participants were more informed than male participants.

In Mozambique 731 respondents with equal number of male and female respondents members of Christian organizations were administered a questionnaire on HIV/AIDS knowledge (Agadyanian (2005). Gender differences were identified as follows: female participants were less informed than males about HIV/AIDS; less women attended public educational vents; less women engaged in the HIV/AIDS; women who engaged in the HIV/AIDS prevention methods were less than that of ;

Men's knowledge of HIV/AIDS was more advanced than that of women; most of the men participated in HIV/AIDS prevention, whereas only half of the women engaged in such activity; men made use of condom during sexual intercourse with regular or occasional partners which was not the case with women. Unlike male participants, females hardly reported any of the three methods of prevention, namely condom, being faithful and abstinence.

Knowledge and attitudes of person living with HIV/AIDS towards HIV/AIDS in Iran was examined by Mahin, Parivash, Madani, Azadeh, Zinab, Ali, Sadegh, Maryam and Afsaneh (2019). There were 100 family members who participated. Their responses to the questionnaire varied from question to question so that in some cases the scores were very high, whereas in others they were not so high. Female participants who had a high income and those whose level of education was high commanded a greater HIV/AIDS knowledge than men.

In India, Singh, Raza, Misra and Dahiya (2009) in a large investigation involving 12,000 respondents selected from ten states of India examined public understanding of HIV/AIDS. The findings were as follows: 1) Men scored higher than women with varied intensity; 2) Females scored higher than males on family as a source of information on HIV/AIDS; 3) Men were better informed on blood transfusion as source of transmission; 4) Transmission of HIV/AIDS, men marginally scored higher than women; 5) On whether HIV/AIDS is curable, the women outperformed male participants.

### **3. Method**

#### **3.1 Sample**

Participants who took part in this investigation were drawn from three African universities geographically located in Kenya, South Africa and Tanzania. Their distribution was as follows: 100 students from Tanzania; 102 from Kenya and 164 from South Africa.

#### **3.2 Procedure**

For each university, the lecturers offering a module in education administered the questionnaire to the participants. This was preceded by briefing students on what the questionnaire was all about, and that responding to the questionnaire was voluntary. As such, they were free to either respond to the questionnaire, or choose not to respond to the questionnaire. There was no report of some of the potential participants refraining from responding to the questionnaire, for all the three universities

### 3.3 Measuring Instrument

A questionnaire comprising 25 statements and questions commonly used for testing respondents' HIV/AIDS knowledge, perceptions, attitudes, beliefs was used. Each statement and question had three options, namely "Yes, No Don't know". Participants were asked to tick whatever option they thought was true of their HIV/AIDS knowledge. For confidentiality purposes, respondents were advised not to write their names or name of the university affiliated to. They were, however, requested to indicate their gender and date of birth.

While the questionnaire comprised 25 statements and questions, only 19 for Kenya and South Africa and 17 for Tanzania were included in the statistical analysis. This was so, because there was lack of clarity in the six statements/questions they responded to, so that either way they answered would mean the answer was correct. With the Tanzania additional questions being excluded was because, there was no response for the two questions for all the participants. It is unknown why this was so.

## 4. Results

Descriptive statistics in the form of percentage, means, standard deviations, "t-test" and probability were used as method of data analyses as displayed in Table 1. The response to the questionnaire for Kenya was 79.8% for males and 80.6% for females; South Africa 77.4% for males and 73.9% for females, and Tanzania 76.7% for males and 73.2% for females. In terms of statistical gender differences, there were non for both Kenya and South Africa, meaning that male respondents were as knowledgeable about HIV/AIDS, as their female counterparts were. As for the Tanzania sample, the gender differences were statistically significant  $t(98df)=1.94, p<0.05$ . The balance of knowledgeability in HIV/AIDS was in favor of men who were better informed than female respondents.

**Table 1:** Means and Standard Deviation, Percentage & Probability

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No.	Country M	SD	%	t-test	P
1	Kenya: Males 15.6	19.8	79.8	0.75	ns
	Females 15.3	11.7	80.6		
2	South Africa: Males 14.7	21.2	77.4	0.22	ns
	Females 13.9	24.5	73.9		
3	Tanzania: Males 13.5	17.2	76.7	1.94	0.05*
	Females 12.1	12.3	73.2		

## 5. Discussion

In view of the importance of knowledgeability about HIV/AIDS, as means of controlling and management of transmission, infection and its spread, the present investigation sought to examine the extent to which there were gender differences among university adolescents in three African countries, namely Kenya, South Africa and Tanzania. Most of the review of literature consulted on this topic have shown three types of responses: no gender differences have been observed; there were differences which varied from question to question female and male participants responding to, and the third type of responses has been either female or male participants were more knowledgeable than the other.

The other, the Tanzania university students fell under such category. The male By process of elimination, the present investigation did not address the question of analysing responses on the basis of each question/statement response made. Therefore it can be reported on how female and male responded to each one of the questions, thought both of them answered question by question. What was done was to sum up responses in terms of percentage, means and standard deviations. In terms of there being parity in gender knowledgeability, the present investigation found this to be applicable to both the Kenya and South Africa university students, who were equally knowledgeable on HIV/AIDS. On the question of either female or male participants being more informed than respondents more than female respondents knew more about HIV/AIDS transmission, infection and spread.

Ugbona et al. (2011) in their study of gender differences among secondary school adolescents reported that their knowledge of HIV/AIDS showed no gender difference. Similarly, Mundingarayi et al. (2011) in their study of street adolescents concluded that there was no gender difference between male and female respondents. The same held true in an investigation of inmates in the US in terms of their general HIV/AIDS carried out by Long and Adams (2012). In an

investigation of undergraduate adolescents in Nigeria, Ojo (2011) did not find any gender differences, except on account of age, with older participants performing better than the younger ones. All these findings have been confirmed by the present findings, which did not observe any gender differences in the samples of Kenya and South Africa. In contrast, the sample of Tanzania did not confirm that there were no gender differences, given that the male respondents were more knowledgeable in HIV/AIDS knowledge than held true for female participants.

There are a number of findings reported, that have detected gender differences in HIV/AIDS knowledge. For example, Terry et al (2005) in a study of Zimbabwe university adolescents, males claimed to have the right to dominate women and asserted that they were the ones to decide the use of condom. Burgoya and Drummond (2008) argue that gender differences in favor of male respondents maybe attributed to women being poorly educated, dependent on men in their social and economic spheres, culturally imposed taboos; all of which contribute to women being less informed in the domain of HIV/AIDS knowledge. On the other hand, in Malaysia Wong et al. (2008 ) reported that there were gender differences, with female participants scoring higher than the male participants. Similar findings were reported in Afghanistan where Mansoor et al. (2009) observed among 1,054 university adolescents, female participants were more informed about HIV/AIDS than their counterparts. In Turkey (Fram, 2012) university students had HIV/AIDS general knowledge differences, where for some questions/statements female or male respondents performed better than the other. It was, nevertheless, noted that, in terms of defining HIV/AIDS, female respondents excelled compared to their counterparts.

Singh et al. (2009) examined gender differences in HIV/AIDS knowledge among 12,000 Indians selected from ten states. The results were as follows: 1) males outperformed females with varied intensity; 2) women scored higher on family as source of HIV/AIDS information; 3) males were better informed on blood transfusion, and whether HIV/AIDS is curable, women outperformed men.

The point being made in this presentation is that the present findings confirm the gender differences as observed in the Tanzania sample, and disconfirm such findings of disparity in gender differences shown in the Kenya and South Africa participants both genders performed equally well.

## 6. Conclusion

It has been expressed that "knowledge is power" and in the context of the present study, it is indeed power, given that in so far as HIV/AIDS has no cure, knowledge remains the only effective option for the control of HIV/AIDS transmission, infection and its wild spread. It is gratifying therefore, that the level of HIV/AIDS knowledge was quite high for all the participants from the three African countries. Even where there were gender difference in the Tanzania sample, it was only marginal. As marginal as it may have been statistically, it must not be taken lightly. It has the implication that females need to be empowered with more HIV/AIDS knowledge to combat the most dreaded disease in human history. It is further a matter of concern that, women are more vulnerable, as those infected and affected by HIV/AIDS exceed those of their counterparts.

The relief remains the same, and that is knowledge is power as a liberating force. Women are more vulnerable on account of social, educational, economic and inequality in their relationship with men. Such factors are not beyond the "power of knowledge" and therefore they must be wrestled to the ground and brought under control for the good of all mankind: men, women and children.

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