

Full Length Research Paper

African university adolescents' gender differences in HIV/AIDS vulnerability

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African university adolescents' gender differences in human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) vulnerability investigation examined adolescents' frequent perception that they are not susceptible to HIV/AIDS infection. Specifically, it sought to find out whether there are gender differences in the belief that adolescents are not at risk of HIV/AIDS infection. The investigation was based on 366 male and female participants selected from diverse countries comprising Kenya, South Africa and Tanzania. The measuring instrument was a questionnaire dealing with HIV/AIDS transmission, infection and prevention. The statistical analysis was descriptive. There were statistically significant gender differences in the belief that adolescents were not susceptible to HIV/AIDS transmission. In conclusion, it was argued that high level HIV/AIDS knowledge and belief in invulnerability is a contradiction in terms, and that such belief has serious implication on sexual behavior change. Therefore, it is imperative that, HIV/AIDS public education underscores this misconception of invulnerability, to advance the conquest of the most dreadful and life-threatening disease in recent human history.

Key words: Adolescents' vulnerability, human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) transmission, HIV/AIDS prevention, sex differences, public HIV/AIDS education, HIV knowledge, risk perception.

INTRODUCTION

There is an increasing number of studies showing that many adolescents hold the view that they are immune to being human immunodeficiency virus (HIV)/acquired immune deficiency syndrome (AIDS) infected, believing that only others will contract HIV/AIDS. Partly in view of this stance, Mwale (2008) advances the argument that, if there is personal vulnerability to HIV infection, the person concerned will be on guard against HIV infection. Those who take the position of invulnerability are likely to engage

in HIV high risk sexual behavior. There is a belief among adolescents that only others can contract HIV, but not me. Failure to acknowledge one's vulnerability will lead to one ignoring the advice for safer sex or make use of condom once engaged in sexual activity.

According to Kibombo et al. (2007), perception of one being susceptible to contacting HIV/AIDS works as catalyst for undertaking the necessary precautionary measures. In their study of 5,112 adolescents' and their

perceptions of HI/AIDS, they noted that those concerned about contracting HIV and have a low self-perceived risk use such state of affair for avoiding sexual behaviour, that placed them on the verge of contracting HIV. Their study showed that one in five of the participants did not think they were in danger of contracting HIV.

Opt et al. (2010) examined college students knowledge and perceptions of HIV/AIDS and sexual practices in which it was observed that despite their knowledgeability about HIV/AIDS, they were not just as concerned about their becoming infected.

In a comprehensive report produced by the University of California (2011), it is reported that young people have the myth that they are immune to HIV infection, and that it can only happen to others. In a large sample of 650 American college students, Inungu et al. (2009) made a study of HIV knowledge, attitudes and practices which showed that 86.8 of the participants did not perceive themselves as likely to be infected by HIV. In view of this, the researchers drew the conclusion that there is a coexistence of misconception regarding the transmission of HI/AIDS and the denial of participants contracting HIV. This calls for proactive approach to resolve such challenge among college students (Idid).

In a South African investigation, van Wyk (2006) made a study of 290 undergraduate students' perceptions, attitudes and awareness towards HIV/AIDS with the results that they were informed about HIV/AIDS. This was not all, as they were some who were not well informed about HIV/AIDS and others who denied the existence of HIV/AIDS. In a Nigerian study based on 370 college students, Ching et al. (2005) investigated HIV knowledge, perception and sexual behaviors. The overall results showed that participants' knowledge of HIV/AIDS was not sufficient; they engaged in sexual activity that was rather risky and perceived themselves to be at low risk to HIV/AIDS infection. Ebeniro (2010) studied 324 Nigerian university students and reported that 6% of the participants neither had knowledge of how HIV/AIDS is transmitted, nor did they believe that there was such a thing as HIV/AIDS.

In a Kenyan investigation of persistent gap between HIV/AIDS knowledge and prevention investigation, Njogu and Martin (2003) reported that the majority of participants considered themselves less vulnerable to contracting HIV/AIDS, when they engaged in sexual activity. In a similar investigation of youths, Kabiru and Orpinas (2009) observed that, in a sample of 931 high school students, the majority of them were of the view that their chances of contracting HIV/AIDS was rather low if not nonexistent. The tendency for adolescents to hold the perspective that HICV/AIDS poses danger to anyone else except them, is a fallacy and misconception. Everyone remains vulnerable to HIV so long as he/she engages in what is referred to as HIV risk behavior. It is

important therefore for everyone to know the facts and the various ways of protecting oneself from being infected.

In the City of Lagos, Nigeria, Durojaiye (2009) reported that over 70% of the participants did not think that they were at risk of contracting HIV/AIDS. This was in spite of the fact that close to 70% of them were involved in sexual activity with multiple partners. It was nevertheless gratifying to know that those who thought that there was possibility of being infected, made use of condoms on a regular basis. With those who had low perception of contracting HIV/AIDS, there was no commitment to behavior change (Durojaiye, 2009).

Related to this, there are studies that have investigated gender differences among adolescents on their knowledgeability of HIV/AIDS transmission, infection and prevention. In summary, the outcomes have been divergent comprising four categories. Namely, there are results showing that either female or male participants are more knowledgeable than the others; the third category shows convergence that there is no significant difference between the forementioned groups and fourth has both male and participants doing better than the other on the basis of various questions/statements responded to. Such research findings will be reported here to support the narration advanced.

Durojaiye (2011) refers to HIV/AIDS as 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 on the gender differences between male and female participants was non-significant. On the other hand, it was observed that married participants were more knowledgeable than those who were single.

In Malaysia, Wong et al. (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. In Afghanistan, an investigation of 1,054 university students drawn from four universities examined the level of HIV/AIDS knowledge, perception, attitudes and practices and gender differences (Mansoor et al., 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.

Fraim (2011) investigated knowledge level and misconception about HIV/AIDS among 1,925 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, the internet, friend and associates more than it was in the case with women participants. In terms of defining, HIV/AIDS women were 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.

Knowledge and attitudes of person living with HIV/AIDS towards HIV/AIDS in Iran was examined by Mahin et al. (2010). 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.

METHODOLOGY

The sample of the present study comprised adolescents selected from university students in Kenya, South Africa and Tanzania both males and females. The total number of participants added up to 366 with a distribution of 102 Kenya university students, 164 South Africa university students and 100 Tanzania university students.

Measuring instrument

The questionnaire comprised 25 questions/statements soliciting a response on the basis of three options, namely "Yes, No, Don't Know". This sought to identify gender differences in frequency and percentage. All that was expected was to tick the option that was descriptive of what they knew about HIV/AIDS. The focus question on HIV/AIDS invulnerability read as follows: "Do you think you stand a chance of getting AIDS?"

Procedure

Since the researcher could not be in all places at the same time, arrangement was made for university lecturers to be responsible for administering the questionnaire to their respective students. This was to be done after meeting what was expected of them by their institutions in administering such a questionnaire. The responding to the questionnaire was preceded by the lecturer concerned explaining to the participants what was expected of them. They were also advised that they had the choice of responding to the questionnaire, as a

matter of volition. In addition to the questions, participants were to fill in their gender and date of birth. For the purpose of confidentiality, participants were not permitted to write their names or institution of affiliation. On completion of the questionnaire the lecturers collected the papers which were sent back to the researcher in New York for scoring and statistical analyses.

RESULTS

Descriptive statistics in the form of frequency, percentage, chi-square and probability were used as a method of data analyses as displayed in Table 1. The analyses were carried out for each country separately independently of each other. In such analyses there were three approaches used, namely the frequency and percentage of female and male participants on the entire questionnaire consisting of 25 statements and questions (Test One); the frequency and percentage of gender differences on the focus question measuring respondents' HIV/AIDS vulnerability and a chi-square for the purpose of determining whether the HIV/AIDS invulnerability was statistically significant (Test Two).

In terms of the overall 25 statements/questions, Tanzania respondents performed as follows: men had a knowledge score of 76.7% compared to a score of 73.2% for women; for Kenya participants, men scored 79.8%, whereas women scored 80.6%; for South Africa men scored 77.4% compared to a score of 73.4%. From the scores obtained by each of the three diverse groups of university students, it was clear that their performance was high and comparable to what other researchers in these specific African countries and those from outside the continent of Africa had. As regards the HIV/AIDS invulnerability based on each country and for male and female participants separately, the results in percentage was as follows: Tanzania male participants had a score of 75% compared to women with a score of 80%; Kenya male respondents had a score of 87% compared to women who scored less than 1%; for South Africa, women scored 81% while men had a score of 78%.

The use of chi-square for determining the statistical gender mean differences for the three sets of participants showed that all of them had a statistically significant gender mean difference as follows: Tanzania $X^2(1df, N98) = 30.7$ $p < 0.001$; Kenya $X^2(1df, 100) = 66.4$, $p < 0.001$; South Africa $X^2(1df, N162) = 56.2$, $p < 0.001$. The gender mean difference in the case of Tanzania university students meant that women felt more HIV/AIDS invulnerable than their counterparts felt. Specifically, it means women did not think that it was possible for them to be infected by HIV/AIDS more than was the case with male respondents. In the case of Kenya university students, male participants were of the stronger view that

Table 1. Frequency Percentage Chi-Square and Probability. Do you think you stand a chance of contracting HIV/AIDS?

Country	Test One		Test Two		χ^2	P
	Frequency	%	Frequency	%		
Kenya						
Male	982	79.8	56	87	66.4	0.001
Female	2362	80.6	2	0.05		
South Africa						
Male	1041	77.4	56	81	56.2	0.001
Female	1274	73.4	72	78		
Tanzania						
Male	795	76.7	44	75	30.7	0.001
Female	516	73.2	33	80		

they were unlikely to contract HIV/AIDS. This was a great contrast to females who overwhelmingly felt that they stood a chance of being HIV/AIDS infected. As regards South Africa, male respondents claimed invulnerability more than was the case with women. In short, women in Tanzania considered themselves more invulnerable to HIV/AIDS than their counterparts. In Kenya, men felt that they were HIV/AIDS invulnerable, whereas women assumed the opposite stance. In South Africa men considered themselves more invulnerable than women respondents.

DISCUSSION

Research findings in many countries around the world have shown that university adolescents command a high knowledge of HIV/AIDS. It has also been made known that there are gender differences in HIV/AIDS knowledge. Such findings fall under three categories namely those which show that men are more knowledgeable than women; others have shown that women are more knowledgeable than men respondents; others have indicated that gender differences vary from question to question, meaning that in some questions women perform better than men and vice-versa. The fourth set of findings have declared gender parity, meaning that there is no difference as both genders perform equally well.

While attempts were made to examine the mentioned views and findings, the focus of this study was to look at the stance adolescents in various parts of the world have associated themselves with, when it comes to HIV/AIDS. That is the majority of adolescents entertain the belief that, they do not stand a chance of HIV/AIDS ever being transmitted to them. Surprisingly this is also claimed by

adolescents who engage in high risk behavior. Such stance was a driving force and motivation of undertaking the present investigation. Specifically, given that indeed adolescents subscribe to such belief, would it be possible that, there might be gender difference in such belief? Would female or male respondents be more inclined to think this way than their counterparts? The data analyses showed mixed findings, though there was predominancy of male participants claiming invulnerability more than their counterparts, the women. In Tanzania, women participants more than men claimed invulnerability; in Kenya men participants claimed invulnerability more than was the case with women; in South Africa, male university students laid claim on invulnerability more than their counterparts. This leads to a sum of two sets of participants attributing invulnerability to men, and only one set of participants attributing invulnerability to women. Such divergent outcomes confirm other investigations which have reported similar results in various parts of the world (Mansoor et al., 2008; Wong et al., 2008; Mahim et al., 2010; Sadegh et al., 2010; Durojaiye, 2009).

According to the Tanzania set of sample, female participants were more HIV/AIDS invulnerable than male participants, which confirms what was reported among American college women students who did not believe that they stood a chance being HIV/AIDS infected (University of California, 2011). In fact, overall the majority of college students ranging from 75 to 85% did not feel that they were at risk of HIV/AIDS transmission. Fischhoff et al. (2011) argue that adolescents are known to engage in risk behavior on account of their belief in invulnerability, which is referred to as "the current conventional wisdom of adults views of adolescents' behaviour".

In the study conducted by Ebeniro (2010), it was reported that many participants did not believe that they were susceptible to contracting HIV/AIDS. It is argued that other adolescents engage in risk behavior because they attach vulnerability to a point of hopelessness. In other situations, such invulnerability places adolescents in a position of making wrong decisions, thus leading them to risk behavior physically or psychologically (Ibid). "The belief that HIV could happen to some people and not themselves is a prevalent thought among the students". On the basis of such belief, adolescents see no need for the use of condom and this gives them the licence to engage in multiple sex partners relationship.

In the present investigation, it was observed in Kenya and South Africa that male respondents associated themselves with HIV/AIDS invulnerability more than female respondents. According to Gupta (2009), in many societies, traditions lend support to the belief that men are associated with risk-taking behavior in a wide range of behavior, and therefore this accounts for the behavior of male participants, as demonstrated in this investigation.

Conclusion

The present investigation has confirmed the existence of statistically significant gender differences of HIV/AIDS invulnerability among African university adolescents in Kenya, South Africa and Tanzania. In the Tanzania sample, female participants claimed greater HIV/AIDS invulnerability than their counterparts. In Kenya and South Africa, male participants showed greater HIV/AIDS vulnerability than was the case with female respondents. All participants had a high level knowledge of HIV/AIDS knowledge and awareness. However, such knowledge is incongruent with reality when adolescents do not believe that they are susceptible to HIV/AIDS transmission, particularly when they freely engage in behavior that predispose them to HIV/AIDS infection. According to Inungu et al. (2009), there is a coexistence of misconception regarding the transmission of HIV/AIDS and the denial of participants controlling HIV/AIDS. This, therefore, poses a challenge to society and underscores the continued importance of public HIV/AIDS education for the control, management and prevention of the most dreaded disease in recent human history.

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