

HIV/AIDS-Anxiety among Adolescent Students in Botswana

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Abstract This research investigated the incidence of HIV/AIDS anxiety among students in Botswana. The sample comprised 240 randomly selected students from six schools in three districts in Botswana, with data collected via a questionnaire. Percentages and Chi-square were used to analyze the extent to which the students were anxious about HIV/AIDS and if there was a significant gender difference in this regard. Findings showed that the students were anxious on several fronts about HIV/AIDS; specifically that they and their relations might contract the virus and that they might lose family members. There was gender difference in terms of anxiety about the possibility that relations might become infected. The role of the counsellor in reducing HIV/AIDS anxiety among students in communities living with HIV/AIDS is discussed.

Keywords HIV/AIDS · Anxiety · Gender differences · Counsellor role

Introduction

Southern African countries have the highest rates of HIV infection (Jackson 2002; Muula and Mfusto-Bengo 2004) and extent of HIV/AIDS impact (Kahaka 2004). Consequently, being infected with HIV seems to be a serious and ongoing risk for people in those settings. Among the Southern African countries, Botswana is second only to Swaziland in terms of HIV/AIDS rates and impact (AVERT 2006). The notion of impact spells out the need for the government's developmental plan to cater for especially two categories of persons in the population: HIV/AIDS infected or HIV/AIDS affected persons (Jacques 2003). The impact in regard to both of these dimensions in Botswana includes an increased number of persons affected by the pandemic (Brandt 2005), including increasing numbers of HIV infected children (Malema 2006), expectant mothers and fetus (Mwikisa 2004) and an increased number of children who have lost at least one parent to the epidemic (Petso 2005). It also includes the increasing travel demands to home villages in response to crisis calls related to

HIV/AIDS infected or affected family members (Onyewadume 2006), overwhelming demands on and exhaustion of Home Based Care (HBC) givers assisting patients and families, and increased school absenteeism mainly by girls who assist with Home Based Care (Lindsey *et al.* 2003).

The impact of HIV/AIDS in Botswana is so enormous that the government has responded with diverse health initiatives, including a 'Prevention of Mother to Child Transmission Campaign' (PMTCT), provision of antiretroviral drugs, the establishment of HIV/AIDS testing centers throughout the country, integration of HIV/AIDS education into the school curriculum, and training workshops and research initiatives (Mwikisa 2004). Significant among the research initiatives are three national behavioral surveys that yielded important HIV/AIDS data on people's knowledge and awareness and attitude-based behaviors and practices. These surveys concluded that awareness levels of HIV/AIDS were high and so was the condom usage rate. However, accurate knowledge of the disease was still low and risky sexual behavior was common (NACA 2004). The surveys called for more research to examine psychosocial issues in regard to HIV/AIDS.

HIV/AIDS in Botswana is of particular concern because the rate of new infections is escalating. Furthermore, whilst many initiatives focus on the adult population, HIV/AIDS has become a disease of young people with those aged 15–24 years accounting for half of the new cases of infection worldwide each year (Advocates for Youth 2006; United Nations Population Fund [UNFPA] 2003). UNFPA stated that at the end of 2001, an estimated 11.8 million young people aged 15–24 were living with HIV/AIDS, and the majority of these would be from Southern Africa. Girls in particular are more vulnerable than boys; with two-thirds of newly infected youth aged 15–19 years in sub-Saharan Africa being female. Reasons given for these figures include the biological make-up of girls, and gender and cultural norms. It seems that for young women, the reproductive tract may tear during intercourse, thereby allowing easy access by the virus. In addition, girls' sexual relationships can often be with older men who may already be infected with the virus and girls usually have little power to negotiate the use of condoms, especially if they had agreed to exchange sex for money. Another factor is that dangerous myths that may reinforce the spread of HIV/AIDS are common in Botswana (AVERT 2007). Such myths include the belief that sex with a virgin cures HIV/AIDS. So young girls may fall prey to forced sexual intercourse with infected males.

HIV/AIDS initiatives and research in Botswana tend to emphasize knowledge of and attitudes towards the virus, with less emphasis placed on the psychological dynamics of persons living with the disease (Kahaka 2004) or those potentially at risk of being infected. Established facts, general understanding and media commentary promote the message that persons within Botswana's school-age bracket are clearly at risk of HIV/AIDS (NACA 2004). Such views are highly likely to stimulate anxiety for children at such risk, and perhaps with girls in particular in that the figures as they relate to infection rates are increasing for them and they will have more direct exposure to the issue through home-based care responsibilities (Lindsey *et al.* 2003).

Commenting on the psychological impact of HIV/AIDS on students, Costin *et al.* (2002) noted that students infected with HIV/AIDS or confronted with HIV infection of a loved one, usually experience psychological problems including anxiety and this may affect many aspects of personal adjustment and compromise their academic success. Implicitly, therefore, it seems expedient to study students who are living in an environment that is greatly being impacted upon by the HIV/AIDS scourge. The purpose of this study was to find out if the young Botswana student participants studied were anxious about HIV/AIDS and if there was a significant difference between the genders in terms of HIV/AIDS anxiety.

Methodology

A survey research design was used for the study. The sample comprised 240 (126 male and 114 female) volunteer school adolescents from three districts in Botswana; with six schools participating. The mean age of the students was 16 ± 2.5 years.

Data Collection and Analysis

The researcher constructed a questionnaire to find out if students were anxious about HIV/AIDS. The questionnaire had two sections: a biographical data section and a section that had ten closed-ended statements involving a four-point Likert scale (from strongly disagree to strongly agree). The psychometric properties of the instrument were established with Factor Analysis and the Cronbach Alpha Coefficient was 0.06. Cronbach alpha estimates the internal consistency of the test items by determining how all items on a test are to each other and to the total test items (Gay and Airasian 2003). The items on the questionnaire whose data yielded this score are presented in Table I.

As human dignity needs to be protected in research (Berg 2004), this study conformed to Botswana's human research guidelines for upholding ethical issues. Approval was requested from the Botswana Ministry of Education to conduct the study. The Ministry of Education Officer in charge of communicating approval of the study wrote a letter to all secondary school principals, stating that the researcher had been permitted to conduct the study in secondary schools in Botswana and requested them to offer necessary assistance. The researcher then randomly selected six secondary schools, two each from three of the twelve districts in Botswana. The districts involved were South Central, North Eastern and Kwaneng. When the school heads approved the request they referred the researcher to their senior guidance teachers for assistance. They were informed that the purpose of the research was to investigate the incidence of HIV/AIDS anxiety among adolescent students in Botswana. As supervisors of their school guidance programs (Botswana Ministry of Education 1996), the guidance teachers allowed the researcher access to students for data collection.

The researcher randomly selected two classes from each school. Following this, the senior guidance teacher assembled the students in the two classes (approximately 80 students) and introduced the researcher to them. The researcher then asked the students for their possible participation with the following emphasis: participation was voluntary, the purpose of the research was to find out if the volunteering students were anxious about HIV/AIDS or not, information received would be used for research purposes only and would be strictly confidential, and only 40 volunteers would be selected per school. Students who were interested in participating were asked to remain seated while others took their leave. The researcher then randomly selected 40 students from those volunteering. Altogether, 240 volunteer students (6×40) were selected to constitute the study sample.

The first research question was analyzed in terms of raw scores and percentages and the second involved chi-square analysis.

Results

In regard to whether students experienced levels of anxiety about HIV/AIDS, the results shown in Table I indicate that the majority of students were anxious in regard to matters to do with themselves, their family members and the community. Seventy-one percent stated

Table 1 HIV/AIDS anxiety responses

Questionnaire items	Strongly agree		Agree		Disagree		Strongly disagree		Disagreement total			
	Score	Percent	Score	Percent	Score	Percent	Score	Percent	Score	Percent		
I sometimes worry that I might get infected with HIV/AIDS	78	33	93	39	171	71	26	11	43	18	69	29
Thinking about HIV/AIDS prevents me from concentrating at my studies	21	9	30	13	51	21	71	30	118	49	189	79
I find myself thinking from time to time about the possibility of getting infected with the virus	44	18	83	35	127	53	60	25	53	22	113	47
I sometimes think of the possibility of my relation (e.g., father, mother, brother, sister) getting infected with the virus	53	22	98	41	151	63	38	16	51	21	89	37
I often think that I might soon lose a relation due to HIV/AIDS infection	63	26	84	35	147	61	51	21	42	18	93	39
I am very worried that HIV/AIDS could spread among people in my community	117	49	78	32	195	81	29	12	16	7	45	19
I often think that I might soon be infected with the virus through someone in my community	49	20	62	26	111	46	62	26	67	28	129	54
I am so afraid of being infected with HIV that I sometimes reduce my interaction with other people	45	19	43	18	88	37	48	20	104	43	152	63
I sometimes think it might be my turn to be HIV positive	34	14	67	28	101	42	61	25	78	32	139	58
From time to time, I find myself thinking that I might in fact be HIV positive	23	10	62	26	85	35	69	29	86	36	155	65

that they sometimes worried that they might get infected with HIV/AIDS; 53% only thought about it from time to time; 63% sometimes thought that one of their relations might become infected; 61% were concerned that they might lose one of their relations from the infection; and 77% indicated that they were worried about the spread of the infection throughout their community. In addition to these data, even though it involved less than half of the participants, it was notable that 42% of the students thought that it might be their turn to become infected and 35% periodically thought that they might actually be infected already.

Contrastingly, only 21% considered that thinking about HIV/AIDS prevented them from concentrating on their studies. Less than half (46%) thought they might become infected by someone in their community and only 27% were so afraid that they sometimes reduced their interactions with other people. These results suggested some periodic pre-occupation with HIV/AIDS, but not to the extent that it was all-absorbing. The indications were that the disease was part of the backdrop of life and that students got on with things despite the high potential for infection.

Gender Distinctions

A prediction of gender relationship in terms of anxiety was analyzed using Pearson Chi-square (see Table II). The results revealed no significant differences based on gender, except in regard to one item: "I sometimes think of the possibility of my relation (e.g., father, mother, brother, sister) getting infected with the virus" (chi-square=13.70, df 3; $p < 0.05$).

A consideration of the results on this item (see Table III) reveals that the difference is essentially brought about by fewer males agreeing with the notion of sometimes thinking of the possibility of a close relation getting infected and more strongly disagreeing than was statistically expected, and the reverse for females in regard to both scale items.

Table II HIV/AIDS anxiety and gender

Statements	χ^2 value	df	Asymp. sig.	Results
I sometimes worry that I might get infected with HIV/AIDS	4.31	3	0.230	N Sig.
Thinking from time to time about HIV/AIDS prevents me from concentrating at my studies	5.97	3	0.113	N Sig.
I find myself thinking from time to time about the possibility of getting infected with the virus	3.90	3	0.272	N Sig.
I sometimes think of the possibility of my relation (e. g.: father, mother, brother, sister) getting infected with the virus	13.70	3	0.003	Sig.
I often think that I might soon lose a relation due to HIV/AIDS lose relation	6.57	3	0.087	N Sig.
I am very worried that HIV/AIDS could spread among people in my community	2.16	3	0.54	N Sig.
I often think that I might soon be infected with the virus through someone in the community	4.62	3	0.201	N Sig.
I am so afraid, of being infected with HIV that I sometimes reduce my interaction with other people	1.57	3	0.666	N Sig.
I sometimes think that it might be my turn to be HIV positive	0.239	3	0.971	N Sig.
From time to time, I find myself thinking that I might in fact be HIV positive	4.96	3	0.175	N Sig.

Table III Gender frequencies on HIV/AIDS anxiety about relations

Gender		Strongly agree	Agree	Disagree	Strongly Disagree	Total
Male	Count	28	40	21	37	126
	Expected count	27.8	51.5	20.0	26.8	126.0
Female	Count	25	58	17	14	114
	Expected	25.2	46.6	18.1	24.2	114.0
Total	Count	53	98	38	51	240
	Expected	53.0	98.0	38.0	51.0	240.0

Discussion

The results reveal that a majority of the students indicated that they were anxious to some degree about five of the ten HIV/AIDS issues they were asked about—71% were worried about becoming infected, 53% periodically thought about becoming infected, 63% thought about the possibility of a close relative becoming infected, 61% were worried that they might lose a close relative, and 81% were very worried about the virus spreading in the community. In addition, close to half of the participants (42%) thought that it might be their turn to become infected and another 35% periodically thought that they might be infected already, suggesting a very personal concern for many in relation to this major health issue.

Such results are consistent with the view that as well as HIV/AIDS being a major health concern in Botswana (NACA 2004; AVERT 2006; McClelland 2002; UNFPA 2003), it is also an issue that has implications for psychological health and well-being. Whilst such concerns are most obvious with students actually infected with HIV/AIDS or those who have close family members who are infected, with Costin *et al.* (2002) arguing that such circumstances typically lead to psychological problems including anxiety, with implications for personal adjustment and academic success, which are likely also to be part of the experience of young people in general in contexts where the disease is prevalent. In response to this, Kahaka (2004) argued that, beyond responding to HIV/AIDS issues with medical services, it was necessary to respond with psychological services.

Another notable finding was that a high number of students disagreed with the five remaining statements of the questionnaire, (2) 79%, (7) 54%, (8) 63%, (9) 58%, and (10) 65%, respectively. Comparing these responses with the statements agreed with by these students, it seems that although students were anxious that they could contract the virus, they were not anxious to the extent of ‘thinking’ incessantly about the possibility of getting infected or anxious to the extent of reducing their interaction with people in the community. Similarly, their anxiety did not prevent them from concentrating on their studies. This result tends to show that the students were mildly anxious. Despite the mildness of this experience, this finding could still signal a potential for counselling intervention. This is because anxiety does have the potential of being persistent and could escalate, and if mismanaged, especially when HIV/AIDS issues are involved, the outcome may be quite debilitating for individuals and communities.

Another finding was that the number of students (111; 46%) who agreed was similar to the number who disagreed (149; 54%) with the statement: ‘I often think that I might soon be infected with the virus through someone in the community.’ This response apparently depicts some uncertainty and confusion, and perhaps even ignorance. It aligns somewhat with the findings of the Botswana HIV/AIDS Impact Survey II

(NACA 2004), suggesting that persons living with HIV/AIDS in Botswana have a high level of awareness but a low level of accuracy in terms of knowledge about HIV/AIDS. They also engage in low condom use and engage extensively in risky sexual behaviors.

The result of the chi-square analysis showed gender difference between the participants on only one questionnaire item (the possibility that the participants' relations might get infected by the virus). In spite of the fact that there was a difference in regard to only one item, this difference was considered notable in that it might be related to traditional gender role expectations. For example, the finding was consistent with earlier findings of research conducted with study participants who were selected from the same cultural milieu of the students in this study (Onyewadume 2006). Onyewadume stated that, traditionally, females are socialized as home builders and, despite their hectic work schedule, the participants of her study opined that as mothers, it was their duty to act as stress buffers in their respective homes. These findings seem to affirm that being other-centered is fundamental to the traditional role of home building. In the context of the Botswana axiom, which states that the tree should be bent when it is young (tender), the anxiety that one's relation might get infected could be a reflection of females living up to role expectations that from childhood females should care for others.

This chi-square finding is also consistent with the argument of the UNICEF HIV/AIDS Programme in Malawi (2006), that girls and young women are especially vulnerable because as parents get sick and die, family burdens often shift to girls who have to drop out of school to earn money for sibling care. However, the Malawian situation is not a replica of the current situation in Botswana. The Botswana government tends to take better care of persons with HIV/AIDS and persons who become orphans as a result of the pandemic. Therefore, the female students in the current study may not have as much to worry about compared with Malawians.

This finding is further consistent with the argument that cultural factors influence adolescent reproductive health (Advocates for Youth 1998) and that research on HIV/AIDS should shift away from traditional demographic information to cultural attitudes and practices, like socially constructed gender roles (White and Bednarz 2001). In this regard, Onyewadume (2003) studied some Setswana (the major native language of Botswana) proverbs and idioms and found that some of them metaphorically encourage the spread of the disease, because they motivate multiple sexual partnerships. A few of the Setswana proverbs are as follows:

- 'Monna ke seleepe': (A man is an axe).
- 'Monna ke phafana': (A man is a calabash to be shared—just as members in the community share a calabash for drinking liquids).
- 'Monna ke poo': (A man is a bull, just as a bull fertilizes a herd of cattle).
- 'Monna ga botswe kwa a tswang': (When a man sleeps outside his matrimonial bed overnight, he should not be queried).

It is apparent that these types of proverbs and axioms should be discouraged among students or clarified in terms of their meaning and implications. Another example of a cultural experience in a similar setting that could lead to the spread of the virus was reported by "Adolescents need skills and self confidence to abstain or reduce" (Family Health International 2007), that Malawian girls were vulnerable to HIV/AIDS because they perceived little risk in having sex with a boy if his mother knew the girl's family.

The Role of the Counsellor

The findings of this study point to the apparent need for counsellors in the respective participating schools to mount programs that could reduce HIV/AIDS anxiety among the population relevant to this study. The programs should also equip students, especially females, with skills for teaching their relations how to reduce the possibility of getting infected. For example, counsellors can teach these students accurate information, communication skills and motivation for sharing this with others.

Furthermore, counsellors might need to use research to investigate the myths that promote HIV/AIDS anxiety among their students, like those that state that HIV/AIDS is a form of punishment from God (Kahaka 2004) and sleeping with a virgin may cure HIV/AIDS (AVERT 2007; Malema 2006; Mwikisa 2004). Through meaningful discussions, especially those that focus on cultural explanations of the cause and management of HIV/AIDS (Ntseane 2004), counsellors could reduce the number of students who believe in the dangerous myths that increase the spread of the disease. They could also empower the students to help their significant others to engage in behaviours that may reduce the possibility of their getting infected.

A sense of coping should reduce anxiety. Therefore, counsellors could enhance students' application of internal locus of control in regard to their analysis of HIV/AIDS issues. This may help them to take responsibility for their actions. In addition, counsellors could teach the students or liaise with the Sports and Physical Education teachers in schools to teach students self defence skills. These skills could enable them to deal with sexual assailants like those who seek to act on the myth that having sex with a virgin cures HIV/AIDS (AVERT 2007). They might also lead their students to conduct community-based participatory problem-solving forums that could enhance HIV/AIDS prevention skills in the students' significant others.

Counselling is a relatively new profession in Botswana (Botswana Ministry of Education 1996) and counsellors are currently competing with better known helping professionals like traditional doctors, faith healers and social workers. Therefore, counsellors need to successfully encourage students to patronize counselling services in the schools. Counsellors need to be proactive in offering professional help to HIV/AIDS anxious students.

At present, the Botswana Ministry of Education has supplied the primary and secondary schools with guidance and counseling curriculum guidelines. The document is a guide and not a syllabus, and it has some HIV/AIDS education content. Furthermore, although guidance and counseling is timetabled as a school subject, it is mostly taught by volunteers who do not have formal training in guidance and counselling teaching methodology. An attendant disadvantage is that this situation is susceptible to abuse. With respect to information and skills that may reduce HIV/AIDS anxiety, it is notable that there is a gross shortage of professional counsellors who could utilize counseling professional teaching methods to equip students with HIV/AIDS anxiety reduction skills.

Advocacy is a major counsellor role. Therefore, counsellors, especially through the Guidance and Counselling Association in Botswana, may advocate that government should train more professional counsellors to teach guidance and counseling topics including the HIV/AIDS component of the curriculum guidelines. In the interim, counselors, especially tertiary institution counsellor educators, could organize training workshops to train volunteer teachers in specialized guidance teaching methodologies. Furthermore, counselors may advocate that government should sanction to overcome the various forms of child defilement. An example is 'sugar daddy' and 'sugar mummy' syndrome, a form of sexual

relationship entered into by agreement, in which the older person offers tokens like money, mobile phones and clothes to the younger person and in return, the younger meets the sexual needs of the older person (Mogae 2004).

Ntseane (2004) argued that there is need for the government of Botswana to use a participatory approach to meaningfully engage the people of Botswana in HIV/AIDS discourse. Consultation and coordination are core counsellor roles. In particular, counsellors who work at the Botswana Guidance and Counselling Division in the Ministry of Education, who are mandated to monitor the entire nation's secondary schools' guidance programme, may take a cue from the 1999 UNICEF/Malawi HIV/AIDS project. According to "Adolescents need skills and self confidence to abstain or reduce" (Family Health International 2007), in 1999 UNICEF and the Malawi Ministry of Education pioneered a life-skills programme in Malawi for school children through school anti-AIDS clubs known as Edzi Toto (AIDS not for me). These clubs provide information on HIV/AIDS and other health risks with participatory methods such as drama, song, debates and role-play. They reach out to other children and youth, both in and out of school, with peer education on HIV/AIDS awareness and prevention. Botswana counsellors may take a cue from this by adapting existing clubs in secondary schools, to equip adolescents with skills for helping their significant others to engage in behaviors that may reduce the possibility of their being infected with the virus.

In addition, consistent with the argument of Bor *et al.* (1993), counsellors could use family therapy intervention strategies to reduce students' anxiety that they or their relations may contract the disease.

Limitations of the Study

This study used a quantitative approach to study HIV/AIDS anxiety. A combination of quantitative and qualitative approaches could elicit more robust data and could shed more light on the factors that may motivate HIV/AIDS anxiety in the students. Future research might utilize this combination in order to give students the opportunity to offer additional information. This may enhance the understanding of their anxiety experience thereby enabling counselors to offer better informed professional help.

The study sample is relatively small considering the potential damage that HIV/AIDS anxiety may cause. Therefore, the study sample may be increased and diversified in order to increase the extent to which the findings of this study may be generalized. The role of cultural factors on gender was not explored greatly in the current research. From the argument of Ntseane (2004), it is appropriate that this be focused on in future research.

In spite of these limitations, this study identified that Botswana's adolescents experience a degree of anxiety in regard to various aspects of HIV/AIDS and that girls seem especially concerned about relatives contracting the disease. This being the case, there are various strategies that need to be considered to help address the psychological effects of this human problem to match initiatives that are taking place at the more social political level.

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