

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS



Z Paruk, SD Mohamed, C Patel, S Ramgoon

ABSTRACT

Given the dearth of literature on the influence of religiosity on attitudes toward people with HIV/AIDS, the present study surveyed these variables in a sample of South African Muslim university students using the Religious Orientation Scale (ROS) and an attitude to people with HIV scale. Gender differences in attitudes towards people with HIV were also examined. The sample comprised 90 male and female undergraduate and postgraduate Muslim students. While both males and females displayed high religiosity scores, male students were found to be significantly more religious than female students. No gender differences were found on the attitude to people with HIV scale, with students indicating positive attitudes to people with HIV. Higher religiosity was significantly correlated with a more positive attitude to people with HIV. The implications of the findings are discussed.

Keywords: HIV/AIDS, attitudes, religiosity, Muslim, students.

RÉSUMÉ

Étant donné le manque de littérature sur l'influence de la bigoterie sur les attitudes envers des gens séropositifs, cette étude a examiné ces variables auprès d'un échantillon d'étudiants universitaires musulmans sud-africains en utilisant le barème d'orientation religieuse (ROS) et le barème de l'attitude envers les gens séropositifs. Les différences de sexes aux attitudes envers des gens séropositifs étaient également étudiées. L'échantillon consistait de 90 étudiants musulmans hommes et femmes de deuxième et troisième cycles. Pendant que tous les étudiants, hommes et femmes, montraient des résultats de la bigoterie élevés, les hommes étaient plus religieux que les femmes. Il n'y a pas eu de différences de sexes sur le barème des attitudes envers les gens séropositifs chez les étudiants qui montraient des attitudes positives envers les séropositifs. Une bigoterie plus élevée était sensiblement en corrélation avec une attitude plus positive envers des séropositifs. Les implications des résultats sont exposés.

Mots clés: VIH/SIDA, attitudes, bigoterie, Musulman, étudiants.

INTRODUCTION

In the last three decades a substantial portion of the research on HIV/AIDS has focused on attitudes toward people with HIV/AIDS. In a review of the research between 1987 and 1995, Valimaki, Suominen and Peate (1998) report that negative attitudes toward people with AIDS were common. The disease was initially identified with homosexuals but gradually began to be seen as a disease that affected heterosexuals also (Al-Islam, 2001). According to Redjimi and Lert (1993), AIDS was commonly regarded as a disease that

affected those who engaged in promiscuous behaviour. Studies have also found what Lee, Campbell and Mulford (1999) refer to as a 'victim-blaming tendency' toward people with AIDS (e.g. Anderson, 1992; Ornstein, 1992). Conversely, Green (1995) found that the general public in Scotland had a relatively liberal view of people with HIV. In South Africa, in spite of campaigns by governments and AIDS workers to improve AIDS knowledge and promote tolerance, the epidemic continues to be characterised by denial, stigma, prejudice and discrimination (Crewe, 2002).

Zubeda Paruk is a registered clinical psychologist. She is a lecturer in the School of Psychology at the University of KwaZulu-Natal, and is currently working on an evaluation of a family-based HIV prevention programme targeted at pre-adolescents. Her other research interests include issues related to women, health and religion.

Sitti Djamela Mohamed is a psychological counsellor (HIV/AIDS). She is currently completing a master's degree in Health Promotion at the University of KwaZulu-Natal and is researching the accessibility of antiretroviral treatment to refugees.

Cynthia Patel, a registered research and counselling psychologist (HPCSA), is a lecturer in the School of Psychology, University of KwaZulu-Natal (Howard College Campus). She teaches research methodology and statistics at undergraduate and postgraduate levels and supervises master's degree research. Her research interests include women's issues (with specific emphasis on feminism, reproductive rights, work and spirituality) and HIV/AIDS.

Sarojini Ramgoon is a registered counselling psychologist and lecturer in the School of Psychology, University of KwaZulu-Natal (Howard College Campus). She teaches both undergraduate and postgraduate students in the area of counselling and psychotherapy and does research and clinical supervision of master's degree students. Her research interests are in the areas of HIV/AIDS, suicide and adolescent mental health.

Correspondence to: Zubeda Paruk, e-mail: Parukz@ukzn.ac.za

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS

Ross and Levine (2002) found that among young adults at the University of Cape Town there was still a strong value-based component in attitudes towards people with HIV/AIDS because the disease is perceived to be contracted through immoral behaviour.

Whilst research in the 1990s indicated a gender difference in AIDS-related attitudes, with male students expressing more negative attitudes than female students (Chavis & Norman, 1995; Connors & Heaven, 1990; Heaven, Connors & Kellehear, 1990; Lee *et al.*, 1999; Lester, 1989; Yong & Miller, 1993), Peruga and Celentano (1993) concluded on the basis of a meta-analysis that there was little correlation between gender and attitudes about HIV. More recently, Bruce and Walker (2001), in a study of college students' attitudes about AIDS between 1986 and 2000, also reported consistent gender differences over time, with females expressing more tolerant attitudes than males. Adedigba, Ogunbodede, Fajewonyomi, Ojo and Naidoo (2005), however, found that in a group of Nigerian health care workers aged 25 - 40 years, males had a more positive attitude towards HIV/AIDS patients than females.

Depending on religious affiliation, the response to HIV/AIDS is likely to vary according to a person's underlying belief system. Herek, Mitnick, Burris, Chesney, Devine, Thompson Fullilove, *et al.* (1998) point out that the religious response to AIDS has often been ambiguous and contradictory. A victim-blaming orientation is likely to stem from what Pargament, McCarthy, Shah, Ano, Tarakeshwar, Wachholtz, *et al.* (2004) refer to as 'negative religious coping', which involves seeing God as punitive. In contrast, 'positive religious coping' which views God as loving and caring would probably lead to a more tolerant orientation. Religion, therefore, has the potential to mould followers' attitudes about the illness. It can influence thinking around what causes illness, what treatment is indicated and how society should view sufferers.

Since about 1985, Islamic ethical literature has mentioned AIDS as an illness pertaining to European and American homosexuals (Francesca, 2002). Now that it is recognised that HIV/AIDS is spread primarily by multiple partner heterosexual activity, Muslim

leaders have tended to avoid this topic because of the deep religious taboos regarding sex (Amod, 2004). Rademakers, Mouthaan and de Neef (2005) point out that Islam stresses sexual abstinence before marriage for both males and females. In addition, according to the Islamic view, HIV/AIDS is brought on by behaviour that displeases and disobeys God, and will therefore result in punishment (Al-Islam, 2001). However, according to Francesca (2002) some Muslim religious groups stress the great tolerance of Islam, which should include people with HIV and AIDS.

In South Africa, Muslims make up an estimated 1.45% of the population (Kagee, Toefy, Simbayi & Kalichman, 2005). These authors found HIV prevalence of 2.56% among a community sample of Muslims. Although this rate is much lower than the national prevalence for over-15-year-olds of 22.8% (Department of Health, 2003), Kagee *et al.* (2005) maintain that the behavioural risks for HIV infection among Muslims may be higher than has been commonly acknowledged.

Muslims in South Africa then live in a country with one of the highest prevalence rates for HIV/AIDS in the world. The ongoing debates between the government and AIDS activists on the causal connection between HIV and AIDS as well as treatment issues have led to divisions between the two groups and have hindered the provision of services (Crewe, 2002). For Muslims in this country, this confusion is exacerbated by Muslim religious leaders adopting varying stances of either avoiding the issue of HIV/AIDS (Amod, 2004), seeing it as a warning from God not to indulge in illicit conduct (Francesca, 2002), denying the threat of the pandemic to their societies (Hassan, 2004; Kelley & Eberstadt, 2005), or encouraging tolerance towards people with HIV/AIDS (Francesca, 2002). The dilemma facing Muslims is thus how to reconcile compassion for affected people with the notion of affliction as divine retribution, justly deserved.

Given this dilemma and the absence of studies on Muslim students, this study aimed to explore the attitudes of a sample of South African Muslim university students towards people with HIV/AIDS, the relationship between level of religiosity and attitudes, and gender differences in attitudes.

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS

METHODOLOGY

Sample

The targeted population was undergraduate and postgraduate Muslim students attending the University of KwaZulu-Natal, South Africa. Potential participants were approached on campus and a purposive sample of 90 volunteers was obtained. The sample comprised both male ($N = 45$) and female ($N = 30$) participants; 15 students did not indicate gender on their questionnaires.

Instruments

The Religious Orientation Scale (ROS) of the Omnibus Personality Inventory (Heist & Yonge, 1968), which was normed on college and university students, was used to measure religiosity. The scale, consisting of 26 statements with true or false responses, is uncomplicated to administer and easily understood. A further advantage of the scale is the ease with which it can be adapted to suit any religious group. Some of the words in the items were changed to make them appropriate to a Muslim sample (For example, *Bible* was changed to *Quran*). Following the instructions in Heist and Yonge (1968), the total scores were then transformed, resulting in a distribution with a mean of 50 and a standard deviation of 10. High scorers are regarded as sceptical and dismissive of conventional religious beliefs, therefore exhibiting low religiosity. Low scores are indicative of a strong commitment to religious belief and therefore high levels of religiosity. The internal consistency of the ROS, as assessed by the Kuder-Richardson formula and the split-half correlation, corrected by the Spearman-Brown formula, revealed estimates ranging from 0.67 to 0.91. Test-retest reliability coefficients ranged from 0.79 to 0.94. The validity of the ROS has been established mainly through correlations with other inventories such as the Study of Religious Values Scale (Allport, Vernon & Lindzey, 1951).

In order to measure attitudes to people with HIV, a 15-item questionnaire was adopted from a study of attitudes towards people with HIV conducted by Green (1995). This research instrument was designed after extensive in-depth interviews with AIDS sufferers and with the collaboration of experts in the field of AIDS research, and its reliability was established through two pilot studies (Green, 1995). Participants rate their views on 15 items about people with HIV, on a four-point scale ranging from strongly agree to

strongly disagree. The items made up three domains, namely, 'cognitive features' (what people with HIV are like), 'victim blaming' (whether they are responsible for being HIV-positive) and 'treatment from society' (whether they should be discriminated against or whether they should be restricted in certain ways). Green's (1995) analysis indicated that the domains did not operate independently, allowing a total attitude score to be determined. While Green (1995) assigns scores of +2 to -2 respectively to these responses, the present study used a 1 - 4 scoring system with 1 indicating a negative response to people with HIV, and 4 indicating a positive response. The total score on the 15 items was then added to give a total attitude score ranging from 15 to 60. High scores indicate positive attitudes to people with HIV. Internal consistency reported by Green (1995) using Cronbach's alpha ranged from 0.82 to 0.91 on the four samples used in the study.

Procedure

After obtaining ethical clearance from the University's Ethics Committee, Muslim students from the University of KwaZulu-Natal were approached to participate in the study. Participation in the research was purely voluntary and ethical issues around such concerns as consent, confidentiality, and anonymity were discussed and guaranteed. Consent forms were presented for signature. The questionnaires were handed out to individual participants or groups of participants (where possible) for completion, and collected once completed.

RESULTS

The Statistical Package for the Social Sciences (SPSS) for Windows Version 11.0 was used to analyse the data. In addition to descriptive statistics, *t*-tests and chi-squares were carried out. The total sample of 90 was used in all analyses except those on gender differences, where $N = 75$.

TABLE 1. MEANS, STANDARD DEVIATIONS AND *t*-TEST RESULTS ON THE RELIGIOUS ORIENTATION SCALE (ROS) AND THE ATTITUDES TO PEOPLE WITH HIV SCALE BY GENDER

	Males ($N = 45$)		Females ($N = 30$)	<i>t</i>
	Mean (SD)	Mean (SD)	Mean (SD)	
Religious orientation	48.09 (8.85)	53.19 (11.40)		-2.18*
Attitude scale	39.87 (6.38)	40.31 (6.89)		-0.29

* $p < 0.05$.

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS

Table 1 gives the results on the ROS and the attitudes to people with HIV scale by gender.

The inter-item consistency index (in brackets) reveals a moderate correlation ($\alpha = 0.64$) for the ROS but strong correlations for the attitude scale ($\alpha = 0.81$).

Religiosity

While both males and females displayed high religiosity scores on the ROS of the OPI, significant differences were found between males ($M = 48.09$) and females ($M = 53.19$), $t(88) = -2.18$, $p < 0.05$. Female students were found to be more dismissive of religious orthodoxy than the male students, who were found to be more religious. Although significant, this finding should be treated with caution because of the small sample of female students and the higher variance in their scores compared with the male sample.

TABLE 2. STUDENTS' AGREEMENT WITH INDIVIDUAL ITEMS OF THE ATTITUDES TO PEOPLE WITH HIV SCALE (SIGNIFICANT FACTOR LOADINGS IN PARENTHESES)

	Items	% agree	π^2
Factor 1			
1.	People with HIV are dirty (0.76)	14.60	44.59 [†]
2.	People with HIV are as intelligent as anybody else (0.79)	79.77	31.56 [†]
3.	People with HIV are not to be trusted (0.78)	17.97	36.50 [†]
4.	Being HIV says nothing about who you are (0.75)	70.78	15.38 [†]
6.	You can tell by looking if someone has HIV (0.62)	19.10	33.39 [†]
Factor 2			
12.	Prisoners with HIV should be segregated (0.77)	52.80	0.28
15.	People with HIV should not have a child (0.76)	66.29	9.45*
Factor 3			
5.	People with HIV are no different from anybody else (0.64)	77.52	26.98 [†]
13.	It is safe for people with HIV to work with children (0.78)	50.56	0.11
7.	Nobody deserves to be HIV positive	79.77	31.56 [†]
8.	People with HIV should be ashamed of themselves	23.59	24.04 [†]
9.	People with HIV have nothing to feel guilty about	41.57	2.53
10.	Most people become HIV positive by being weak-willed or foolish	58.43	2.53
11.	Needs of people with HIV should be top priority	57.30	1.89
14.	People with HIV should expect some restrictions on their freedom	59.55	3.25
	* $p < 0.01$		
	[†] $p < 0.001$		

Examination of their responses on the individual items confirmed the tendency for both groups to agree with a more religious orientation. On 23 of the 26 items, more than 70% of the group endorsed the religious option. However on the item: 'It doesn't matter to me what religious group a person belongs to, or whether or not she or he belongs to a church, temple, mosque or any such institution at all' a reversal in the pattern was found, with almost 78% agreement from the sample. The items: 'Religion should be primarily a social force or institution' and 'I am more religious than most people' resulted in more or less similar numbers of 'agrees' and 'disagrees'.

Gender

No gender differences were found on the attitude to people with HIV scale. On the whole, students indicated positive attitudes to people with HIV. As can be seen from Table 2, on 9 of the 15 attitude items, there were significantly more positive responses to people with HIV from both males and females.

Exploratory factor analysis revealed three factors. Factor one, with an eigenvalue of 4.58, explained 30.56% of the variance and comprised 5 of the 6 items measuring 'cognitive aspects'. The remaining factors explained 9.9% and 8.99% of the variance respectively, with 2 items in each factor having significant loadings. In line with Green's (1995) study these results show liberal attitudes as measured by the 'cognitive' aspects (factor 1) yet some agreement with the restrictions that should be placed on people with HIV (factor 2).

TABLE 3. CORRELATION COEFFICIENTS BETWEEN RELIGIOUS ORIENTATION SCORES AND ATTITUDE TO PEOPLE WITH HIV SCORES BY GENDER (N = 75)

	Religious orientation		
	Males (N = 45)	Females (N = 30)	Total (N = 75)
Attitudes to people with HIV	-0.38*	-0.25	-0.30 [†]
	* $p < 0.05$		
	[†] $p < 0.01$.		

A significant negative correlation means that the lower the skepticism of religious orthodoxy (in other words the higher the religiosity) the more positive the attitude to people with HIV. The results indicate significant correlations for the male sample and the total sample. The slightly higher number of males in

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS

this study was probably responsible for the overall significant correlation.

DISCUSSION

HIV infection, with its connotations of promiscuous behaviour, has divided religious opinion as to whether sufferers should be punished (for sinful behaviour) or embraced (based on religious tolerance). Despite inconsistent and confusing messages from religious and political leaders, this sample of South African Muslim students, with their high levels of religiosity, displayed an unexpectedly tolerant attitude toward people with HIV. These findings contradict those of Greeley (1991), who found that higher levels of religiosity (measured by church attendance) were correlated with a higher tendency to blame. Our finding that higher religiosity (measured by the ROS) was correlated with more positive attitudes towards people with HIV seems to indicate a shift towards greater acceptance of affected persons.

On the whole, our findings indicated positive attitudes to people with HIV, except for the endorsement of statements reflecting a negative attitude like: *'People with HIV must expect some restrictions on their freedom'*; *'Prisoners who are HIV positive should be segregated'*. The latter may be related to underlying fears of transmission, particularly in the context of media reports of prison rape. According to Green (1995), fear of transmission is so great amongst the general population that they sometimes tend to exaggerate the risk of infection. Green goes on to say that it is also possible that people may hold stigmatising and non-stigmatising views at the same time. For example, while theoretically supporting the rights of infected people, they may want to avoid actual contact with these people.

The even split of the sample with reference to the statement: *'People with HIV should not have children'*, despite the generally positive attitudes to people with HIV, may be related to a sense of resentment related to media representations of AIDS orphans as a social burden for which all South Africans must assume responsibility.

Our finding of no gender differences in attitudes contradicts the findings of most previous studies that have found that men have more negative attitudes to

people with HIV/AIDS than women (Heaven *et al.*, 1990; Lee *et al.*, 1999). However, Doughty and Schneider (1987) found that whilst men generally showed a greater victim-blaming tendency than women, as educational levels increased, gender differences became non-significant. In fact, education has consistently been found to be a predictor of attitudes towards people with HIV/AIDS (for example, Peruga & Celentano, 1993; Price & Hsu, 1992). It would appear that a higher level of education (as in our sample) lends itself to a better conceptual understanding of transmission of HIV and more awareness of human rights issues. In South Africa, with its history of human rights violations, students are likely to be aware of discrimination. Their less prejudicial attitudes and greater tolerance of those infected with HIV may be a reflection of this awareness. Also, with statistics indicating that South Africa has higher rates of people living with HIV than most other countries in the world, few people have not heard about this epidemic (Crewe, 2002).

Despite lower infection rates among Muslims, the disease is not unknown among them. Increasing numbers of people are witnessing the ill-health and death of family and friends due to HIV infection (Crewe, 2002). Bowman, Brown and Eason (1994) found that personally knowing someone with AIDS significantly affected the attitudes of students towards AIDS. Guth, Hewitt-Gervais, Smith and Fisher (2000) found that education campaigns that included input from an infected person resulted in an increase in positive attitudes towards HIV/AIDS. Perhaps exposure to an infected person has the effect of personalising the disease, and forcing one to confront one's own issues about a disease that does not discriminate against race, class, culture or religion.

These findings have implications for those who will be required to provide care to the increasing numbers of people with HIV/AIDS. Whether it is their religious convictions, their educational level, or an interaction effect that led to the positive attitudes of students towards people with HIV/AIDS, these attitudes bode well, as they are the professionals of the future. We recommend that future research use a larger sample and examine educational level, age and religion as variables.

Compassion or condemnation? South African Muslim students' attitudes to people with HIV/AIDS

References

- Adedigba, M. A., Ogunbodede, E. O., Fajewonyomi, B. A., Ojo, O.O. & Naidoo, S. (2005). *African Health Sciences*, 5(3), 182-187.
- Al-Islam, A. (2001). AIDS and religion. The AIDS crisis in America and the response of the religious community: The challenge and the charge. An African-American perspective. <http://www.aidsfaith.com/convocation/paper18.asp> (Last accessed: 25 October 2005.)
- Allport, G.W., Vernon, P. E. & Lindzey, G. (1951). *Study of values*. Boston: Houghton Mifflin.
- Amod, F. (2004). *Islam and the AIDS pandemic*. Unpublished doctoral dissertation. University of KwaZulu-Natal, Durban.
- Anderson, V. N. (1992). For whom is this world just? Sexual orientation and AIDS. *Journal of Social Psychology*, 22, 248-259.
- Bowman, J. M., Brown, S. T. & Eason, F. R. (1994). Attitudes of baccalaureate nursing students in one school toward acquired immune deficiency syndrome. *AIDS Education and Prevention*, 6(6), 535-541.
- Bruce, K. E. & Walker, L. J. (2001). College students' attitudes about AIDS: 1986 to 2000. *AIDS Education and Prevention*, 13(5), 428-437.
- Chavis, W. M. & Norman, G. S. (1995). A survey of knowledge, attitudes and beliefs about AIDS in a medical school student population. *Journal of Sex Education and Therapy*, 21, 167-173.
- Connors, J. & Heaven, P. C. L. (1990). Belief in a just world and attitudes toward AIDS sufferers. *The Journal of Social Psychology*, 130(4), 559-560.
- Crewe, M. (2002). Reflections on the South African HIV/AIDS epidemic. *Society in Transition*, 33(3), 446-454.
- Department of Health. (2003). *National HIV AND Syphilis Antenatal Sero-prevalence Survey in South Africa*. <http://www.doh.gov.za/docs/reports/>. Last accessed: 7 November 2005.
- Doughty, D. L. & Schneider, H. G. (1987). Attribution of blame in incest among mental health professionals. *Psychological Reports*, 60, 1159-1165.
- Francesca, E. (2002). AIDS in contemporary Islamic ethical literature. *Medicine and Law*, 21(2), 381-394.
- Green, G. (1995). Attitudes towards people with HIV: Are they as stigmatizing as people with HIV perceive them to be? *Social Science and Medicine*, 41(4), 557-568.
- Greeley, A. M. (1991). Religion and attitudes towards AIDS policy. *Sociology and Social Research*, 75, 126-132.
- Guth, L. J., Hewitt-Gervais, C., Smith, S. & Fisher, M. S. (2000). Student attitudes toward AIDS and homosexuality: The effects of a speaker with HIV. *Journal of College Student Development*. http://www.findarticles.com/p/articles/mi_qa3752/is_200009/ai_n8906970. Last accessed: 18 October 2005.
- Hassan, A. (2004). Sex, lies and HIV. *Index on Censorship*, 33(1), 91-93.
- Heaven, P. C. L., Connors, J. & Kellehear, A. (1990). Structure and demographic correlates of attitudes toward AIDS sufferers. *The Journal of Psychology*, 124(3), 245-252.
- Heist, P. & Yonge, G. (1968). *Omnibus Personality Inventory: Form F and Manual*. New York: The Psychological Corporation.
- Herek, G. M., Mitnick, L., Burris, S., Chesney, M., Devine, P., Thompson Fullilove, M., et al. (1998). Workshop report: AIDS and stigma: A conceptual framework and research agenda. *AIDS and Public Policy Journal*, 13(1), 36-47.
- Kagee, A., Toefy, Y., Simbayi, L. & Kalichman, S. (2005). HIV prevalence in three predominantly Muslim residential areas in the Cape Town metropole. *South African Medical Journal*, 95(7), 512-516.
- Kelley, L. M. & Eberstadt, N. (2005). The Muslim face of AIDS. *Foreign Policy*, 149, 42-48.
- Lee, M. Y., Campbell, A. R. & Mulford, C. L. (1999). Victim-blaming tendency toward people with AIDS among college students. *The Journal of Social Psychology*, 139(3), 300-308.
- Lester, D. (1989). Attitudes towards AIDS. *Personality and Individual Differences*, 10, 693-694.
- Ornstein, M. (1992). Aspects of the political and personal sociology of AIDS: Knowledge, policy attitudes, and risk. *Canadian Review of Sociology and Anthropology*, 29, 243-265.
- Pargament, K. I., McCarthy, S., Shah, P., Ano, G., Tarakeshwar, N., Wachholtz, A., et al. (2004). Religion and HIV: A review of the literature and clinical implications. *Southern Medical Journal*, 97(12), 1201-1209.
- Peruga, A. & Celentano, D. D. (1993). Correlates of AIDS knowledge in samples of the general population. *Social Science and Medicine*, 36, 509.
- Price, V. & Hsu, M. (1992). Public opinion about AIDS policies: The role of misinformation and attitudes toward homosexuals. *Public Opinion Quarterly*, 56, 29-52.
- Rademakers, J., Mouthaan, I. & de Neef, M. (2005). Diversity in sexual health: Problems and dilemmas. *The European Journal of Contraception and Reproductive Health Care*, 10(4), 207-211.
- Redjimi, G. & Lert, F. (1993). Images of AIDS among teenagers and young adults. *AIDS Care*, 5(4), 449-465.
- Ross, F. & Levine, S. (2002). *Perceptions of and attitudes to HIV/AIDS among young adults at the University of Cape Town*. CSSR Working Paper No. 14. Cape Town: Centre for Social Science Research, University of Cape Town.
- Valimaki, M., Suominen, T. & Peate, I. (1998). Attitudes of professionals, students and the general public to HIV/AIDS and people with HIV/AIDS: A review of the research. *Journal of Advanced Nursing*, 27(4), 752-759.
- Yong, F. L. & Miller, S. R. (1993). AIDS and students who are gifted: knowledge, attitudes, and beliefs. *Roeper Review*, 15(4), 231-234.

Full text version of

SAHARA *J* available online at

www.sahara.org.za