

Knowledge about HIV/AIDS and policy knowledge in a South African state hospital



A Dijkstra, E Kangawaza, C Martens, H Boer, JJ Rasker

INTRODUCTION

Sub-Saharan Africa is the epicentre of the HIV/AIDS epidemic. With about 5.6 million people living with HIV/AIDS (PLWHA) in 2004, South Africa has the largest number of PLWHA in a single country (Shisana *et al.*, 2005; UNAIDS, 2003; UNAIDS, 2006). It is expected that in the coming years the number of PLWHA will increase in South Africa.

Medical staff involved in the hospital care of HIV/AIDS patients in South Africa, especially nurses and doctors, are confronted with a number of problems. Due to the presumed dangers of HIV infection during patient care, medical staff may experience stress when caring for HIV/AIDS patients. Adequate knowledge about HIV/AIDS is an important means to reduce stress and could result in better care and improve information to the general public (Hall & Shisana, 2003; Horsman & Sheeran, 1995; WHO, 2005).

In 1992 the National AIDS Committee of South Africa formulated a policy aimed at preventing HIV/AIDS. A review of this policy was conducted in 1997. Based on the strengths and constraints found, the South African National HIV/AIDS plan 2000-2005 was designed (AIDS Foundation South Africa, 2005; Garbus, 2002). The purpose of this plan was to provide a broad national framework aimed at four priority areas: a) prevention and treatment; b) care and support; c) research, monitoring and evaluation; and d) human

and legal rights (Department of Health South Africa, 1999). Based on the National HIV/AIDS plan, hospitals can adapt their hospital HIV/AIDS policy to the requirements of the hospital (Garbus, 2002; Zelnick & O'Donnell, 2005). A hospital HIV/AIDS policy helps employees living with HIV/AIDS to understand what support and care they will receive, and a prevention programme may limit the spread of HIV/AIDS; they also assist a hospital in planning/managing for the impact of HIV/AIDS and, ultimately, save money. Counselling programmes for medical staff include information about protocols used in the treatment of PLWHA, infection control programmes, and precautions taken during the treatment of PLWHA.

In South Africa a great majority of PLWHA are treated in state hospitals (Shisana *et al.*, 2005). However, to date little is known about the practical use that medical staff make of hospital HIV/AIDS policy in state hospitals in South Africa, as well as their knowledge about HIV/AIDS in general.

Objectives

The objective of this pilot study was to get insight into the knowledge about HIV/AIDS of medical staff (everybody involved in the hospital care of HIV/AIDS patients, but especially nurses and doctors), as well as their knowledge about and practical use of current hospital HIV/AIDS policy and counselling programmes in a South African state hospital.

Allard Dijkstra is physiotherapist working at the Rehabilitation Centre "Roessingh" Enschede, the Netherlands. At the time of the study he was a student at the University of Limpopo in Garankuwa, South Africa, in receipt of a research scholarship provided by Delta Beurzen. He is currently specialising in paediatric physiotherapy at Avans Plus.

Evelyn Kangawaza is internist and specialised in HIV / AIDS at the Dr. George Mukhari Hospital, University of Limpopo, MEDUNSA, Gauteng, South Africa. She is also a lecturer in internal medicine at the Limpopo University. She had a 2nd degree at the University of Pretoria and a diploma in HIV/AIDS management at the college of medicine of South Africa.

Caroline Martens, physiotherapist, Enschede, The Netherlands. At the time of the study she was a student at the University of Limpopo in Garankuwa South Africa, in receipt of a research scholarship provided by Delta Beurzen.

Henk Boer is associate professor at the Faculty of Behavioural Sciences, Department of Psychology and Communication of Health and Risk, University of Twente. He has carried out research in South Africa on the psychological correlates of HIV prevention behaviour and on the role of communication in shaping social norms related to condom use. He is interested in applying psychological knowledge to improve our understanding of HIV prevention behaviour among adolescents in Africa.

Johannes J. Rasker is specialist Internal Medicine and Rheumatology, Professor at the Faculty of Behavioural Sciences, Department of Psychology and Communication of Health and Risk, University of Twente. He has cooperated in epidemiologic studies with COPCORD and is past Secretary-General of the International League of Associations for Rheumatology (ILAR).

Correspondence to: Johannes J Rasker, Univeristy Twente, Cubicus Room C-229, PO Box 217, 7500 AE Enschede, The Netherlands, e-mail: jjrasker@utwente.nl

Knowledge about HIV/AIDS and policy knowledge in a South African state hospital

Methods

The participants in this study were members of the medical staff from the Dr. George Mukhari Hospital, a large state hospital with 3008 employees, located in Tshwane, South Africa. From the medical staff a stratified sample of 100 persons was selected, according to the actual percentage of each discipline working in the hospital, and invited to participate in the study. A questionnaire was developed after pre-testing, which asked participants to indicate their gender, age and occupation in the hospital, and whether they knew someone close to them with HIV/AIDS. Participants were also asked about their actual and perceived HIV/AIDS knowledge, and about their actual and perceived HIV/AIDS policy knowledge. Their opinion was asked about current counselling programmes.

Findings

A total of 58 questionnaires were returned (response rate 58%). The sample included 44 nurses (76%), seven doctors (12%) and seven (12%) other hospital staff, including a social worker, a physiotherapist, an occupational therapist, a speech therapist and a psychologist. The mean age of the participants was 38 years (range: 22 - 54 years). There were eight men (14%) and 47 women (81%). The gender of three participants was unknown. Non-respondents were nurses (33/77, 43%) and doctors (14/21, 67%). Of the participants 70% (40/57) knew someone close with HIV/AIDS, while 30% (17/57) did not know of anyone close to them with HIV/AIDS.

Perceived and actual HIV/AIDS knowledge

The mean VAS-score on perceived HIV/AIDS knowledge was 76. Nineteen participants (33%) indicated complete confidence in their perceived HIV/AIDS knowledge, with a score of 100. Among these 19 participants were 17 nurses (90%). Six participants (10%) had no confidence in their perceived HIV/AIDS knowledge, with a score of 0. The actual HIV/AIDS knowledge question, in which participants were asked to indicate the meaning of the abbreviation AIDS, was answered correctly by 91% (53/58) of the participants (Table 1). The question assessing knowledge of routes of infection was answered correctly by 83% (48/58) of the participants. Further analysis indicated that 26% of the participants (15/58) had incomplete basic HIV/AIDS knowledge, as indicated by lack of knowledge of the meaning of the abbreviation AIDS and routes of infection. The

analysis also indicated that 87% (13/15) of these were nurses. Remarkably, there was a discrepancy between perceived and actual knowledge; of the participants (19/58) who scored themselves a 100 on perceived knowledge, 37% (7/19) actually scored lower than 100. Participants who knew someone with HIV/AIDS did not differ in their level of knowledge of HIV/AIDS (75%) from those who did not know someone with HIV/AIDS (76%).

Perceived and actual knowledge of hospital HIV/AIDS policy

The mean VAS-scores of perceived knowledge of the hospital HIV/AIDS policy were: among nurses 49, among doctors 69, and among other disciplines 56. The mean for the total group was 48. Of the participants 71% (41/58) indicated that they knew where to go in case of a possible work related HIV infection (Table 1). The question whether HIV/AIDS was a notifiable disease in South Africa was answered correctly ('not a notifiable disease') by only 53% (31/58). Of the participants, 66% (38/58) did not treat or deal differently with HIV/AIDS patients, but they were aware of the dangers. A further 28% (16/58) of the participants did not treat HIV/AIDS patients differently at all, and 7% of the participants (4/58) did treat / deal differently with HIV/AIDS patients. It appears that less than a quarter (24%) had a 100% score on the three questions.

Hospital HIV/AIDS counselling programme

Of the participants, 88% (51/58) indicated that they were aware of information from the counselling programme, such as information leaflets, posters and other means of HIV/AIDS education (Table 1). However, 36% (21/58) indicated that the accessibility and availability of HIV/AIDS counselling in the hospital was insufficient. The majority, 85% (49/58), stated they used part of the counselling programme, but 72% (42/58) found that not enough counselling was done in the hospital.

Discussion

To our knowledge this is the first study performed in South Africa by a South African HIV/AIDS specialist regarding knowledge about HIV/AIDS and HIV/AIDS policy among medical staff in a South African state hospital. Of the participants 41% scored themselves average or lower (< 50) on perceived HIV/AIDS knowledge. More than a quarter of the

Knowledge about HIV/AIDS and policy knowledge in a South African state hospital

TABLE 1. OVERVIEW OF ITEMS FROM THE QUESTIONNAIRE AND PERCENTAGES CORRECT ANSWERS FOR DOCTORS, NURSES AND OTHER DISCIPLINES IN A STATE HOSPITAL IN SOUTH AFRICA APPENDIX

Item	Doctors (n=7)	Nurses (n=44)	Other (n=7)	Total (n=58)
What does AIDS stand for?	100%	89%	100%	91%
How does one get HIV/AIDS?	86%	82%	86%	83%
HIV/AIDS is a notifiable disease.	71%	48%	71%	53%
Do you know where to go once infected?	86%	70%	57%	71%
Do you treat PLWHA differently?	57%	61%	100%	66%
Aware of counselling programmes?	86%	89%	86%	8%
Information on HIV/AIDS is accessible.	86%	61%	43%	62%
Have you participated in counselling?	86%	82%	100%	84%
Enough is done on counselling for medical staff.	57%	25%	14%	28%

participants (26%) appeared indeed to have incomplete basic HIV/AIDS knowledge. Thus our study indicated a rather poor level of HIV/AIDS knowledge, which is compatible with Shisana and Simbayi (2002, 2005) who found that only 33% of medical staff had received some training on the transmission of HIV. Moreover, nurses around the world have repeatedly reported a knowledge deficit regarding HIV/AIDS (Andersson *et al.*, 2004; Horsman & Sheeran, 1995; Lewis & Gray, 2003).

In this study 72% of the participants stated that not enough counselling was done in the hospital. According to this study, 38% of the respondents indicated that the information on HIV/AIDS was not accessible to everyone. Although most participants (85%) stated that they had used HIV/AIDS counselling programmes, a majority of 72% stated that not enough was done to train the medical staff. These findings imply that the current efforts regarding HIV/AIDS workplace counselling are insufficient. The results of this study are comparable to recent studies, concluding that awareness of hospital HIV/AIDS policies in the workplace is poor (Shisana & Simbayi, 2002).

Only 53% of the participants correctly indicated that HIV/AIDS was not a notifiable disease in South Africa. There would be some advantages if HIV/AIDS would become a notifiable disease, as it is in most parts of the world. One can imagine that formal knowledge

and awareness of the problem would increase among health authorities, both economically and socially. Making HIV/AIDS a notifiable disease could also stimulate the acceptance and treatment of HIV/AIDS patients, and officials would respond adequately to try and prevent the spread of HIV/AIDS and improve patient care (Shisana & Simbayi, 2002). However, since the majority of HIV/AIDS infection is among poor people, introduction of registration of the disease would be difficult in South Africa. The often inadequate infrastructure and communication in many of the townships may be a severe barrier to HIV prevention and may make it difficult to start HIV/AIDS notifications (Coetzee *et al.*, 2005; De Cock, Mbori-Ngacha & Marum, 2002; Fenton, 2004; Hogan *et al.*, 2005; Mukherjee *et al.*, 2003; Parker, Easton & Klein, 2000).

A number of other factors may have contributed to the low level of knowledge among hospital staff, including limited woman's' rights in African countries, stress caused by high work pressure, stigma, and economic and infrastructural conditions (Deacon, Stephney & Prosalendis, 2004; Desapriya, 2004; Hogan *et al.*, 2005). In a recent study, 43% of health care workers reported that stigma existed in health care, and 44% stated that stigma affected the performance of their duties (Shisana & Simbayi, 2002). HIV/AIDS related stigma leads to a vicious circle with isolation of and discrimination toward people with HIV/AIDS,

Knowledge about HIV/AIDS and policy knowledge in a South African state hospital

increase of the workload of nurses, and a negative influence on adequate care and treatment (Deacon *et al.*, 2004; Horsman & Sheeran, 1995; Parker *et al.*, 2000; Smit, 2005). Financial and political support of the South African government seems to be necessary to overcome HIV/AIDS stigma (Desapriya, 2004; Dixon *et al.*, 2002; Mukherjee *et al.*, 2003; Ruger, 2004; Sidley 2004). (We added Dixon to the reference list. Sidley was indeed 2004).

The hospital in which our study was performed is a state hospital in South Africa, with many HIV/AIDS patients and relatively good facilities. Patients in the hospital came from within and outside the district. Since South Africa is one of the most developed countries in Africa, the situation in other African countries may be comparable or even worse (Buve, Bishikwabo-Nsarhaza & Mutangadura, 2002).

Conclusions

More than a quarter of the medical staff in a state hospital appear to have insufficient knowledge of HIV/AIDS and hospital HIV/AIDS policy. Moreover, half of medical staff did not know that HIV/AIDS is not a notifiable disease. The medical staff was also not confident in working with the current hospital HIV/AIDS policy. Education of medical staff may be insufficient due to several factors, including lack of accessibility to information, lack of training and counselling, and lack of knowledge about HIV/AIDS policy.

Recommendations

Medical staff should be educated regarding HIV/AIDS, for an effective HIV/AIDS prevention programme and adequate care and treatment of PLWHA. It may be advisable for current HIV/AIDS counselling programmes to be evaluated for their effectiveness. We recommend that hospital HIV/AIDS policy and counselling programmes are developed in co-operation with community based organisations (UNAIDS 2005) and all disciplines in the hospital, especially nurses. Sufficient attention should be given to making HIV/AIDS a notifiable disease, which is an important step in overcoming the challenges facing patient care for HIV/AIDS in South Africa (Shisana *et al.*, 2002).

Acknowledgements

We thank the medical staff of the Dr. George Mukhari Hospital for their cooperation in the study and the

Hospital Board for their cooperation in conducting the study. The researchers AD and CM received a Delta Research Scholarship.

References

- Aids Foundation South Africa (2005). *HIV/AIDS in South Africa*. Retrieved January 28, 2006, from <http://www.aids.org.za/hiv.htm>.
- Anderson, N., Ho-Foster, A., Matthis, J., Marokoane, N., Mashiane, V., Mhatre, S., Mitchell, S., Mokoena, T., Monasta, L., Ngxowa, N., Salcedo, M.P., & Sonnekus, H. (2004). National cross sectional study of views on sexual violence and risk of HIV infection and AIDS among South African school pupils. *British Medical Journal*, 329, 952-954A.
- Buve, A., Bishikwabo-Nsarhaza, K., & Mutangadura, G. (2002). The spread and effect of HIV-1 infection in sub-Saharan Africa. *The Lancet*, 359, 2011-2017.
- Coetzee, D., Hilderbrand, K., Boule, A., Draper, B., Abdullah, F., & Goemaere, E. (2005). Effectiveness of the first district-wide programme for the prevention of mother-to-child transmission of HIV in South Africa. *Bulletin of the World Health Organisation*, 83, 489-494.
- Deacon, H., Stephney, I., & Prosalendis, S. (2004). Understanding HIV/AIDS stigma: A theoretical and methodological analysis. Cape Town: Human Sciences Research Council.
- De Cock, K.M., Mbori-Ngacha, D., & Marum, E. (2002). Shadow on the continent: public health and HIV/AIDS in Africa in the 21st century. *The Lancet*, 360, 67-72.
- Department of Health South Africa (1999). *The National HIV/AIDS Plan 2000-2005*. Retrieved January 31, 2006, from www.doh.gov.za/docs/policy-f.html.
- Desapriya, E.B.R. (2004). Stigma of AIDS needs to be overcome. *British Medical Journal*, 329, 573.
- Dixon S., McDonald S. & Roberts J. (2002). The impact of HIV and AIDS on Africa's economic development. *British Medical Journal*, 324: 232-234
- Fenton, L. (2004). Preventing HIV/AIDS through poverty reduction: the only sustainable solution. *The Lancet*, 364, 1186-1187.
- Garbus, L. (2002). *HIV/AIDS in South Africa. Country AIDS policy analysis project*. San Francisco: University of California, AIDS Policy Research Center. Retrieved January 27, 2006, from <http://hivinsite.ucsf.edu/pdf/countries/ari-sf.pdf>.
- Hall, E., & Shisana, O. (2003). *The impact of HIV/AIDS on health workers employed in the health sector*. Cape Town: Human Sciences Research Council Publishers.
- Hogan, D.R., Baltussen, R., Hayashi, C., Lauer, J.A., & Salomon, J.A. (2005). Cost effectiveness analysis of strategies to combat HIV/AIDS in developing countries. *British Medical Journal*, 331, 1431-1437.
- Horsman, J.M., & Sheeran, P. (1995). Health care workers and HIV/AIDS: a critical review of the literature. *Social Science and Medicine*, 41, 1535-1567.
- Lewis, M., & Gray, J. (2003). HIV/AIDS: Educational needs and attitudes of nurses in the Dominican Republic. *Journal of Multicultural Nursing and Health*, 9, 59-66.
- Mukherjee, J.S., Farmer, P.E., Niyizankiza, D., McCorkle, L., Vanderwarker, C., Teixeira, P., & Kim, J.Y. (2003). Tackling HIV in resource poor countries. *British Medical Journal*, 327, 1104-1106.
- Parker, R.G., Easton, D., & Klein, C.H. (2000) Structural barriers and facilitators in HIV prevention: a review of international research. *AIDS*, 14 Suppl 1, S22-32.
- Ruger, J.P. (2004). Combating HIV/AIDS in developing countries. *British Medical Journal* 329, 121-122
- Shisana, O., & Simbayi, L. (2002). *Nelson Mandela/HSRC Study of HIV/AIDS: South African national HIV prevalence, behavioural risks and mass media household survey 2002*. Cape Town, South Africa: Human Sciences Research Council Publishers.
- Shisana, O., Rehle, T., Simbayi, L.C., Parker, W., Zuma, K., Bhana, K. *et al.* (2005) *South African National HIV prevalence, HIV incidence, behaviour and communication Survey*. Cape Town: Human Sciences Research Council Publishers.
- Sidley, P. (2004). South African health service must strengthen infection control measures. *British Medical Journal*, 328, 366.
- Smit, R. (2005) HIV/AIDS and the workplace: perceptions of nurses in a public hospital in South Africa. *Journal of Advanced Nursing*, 51, 22-29
- UNAIDS (2003). *AIDS epidemic update December 2004*. Retrieved January 31, 2006, from http://www.unaids.org/wad/2003/Epiupdate2003_en/Epio3_04_en.htm.
- UNAIDS (2006). *Epidemic update 2006 sub-Saharan Africa*. Retrieved January 31, 2006, from http://data.unaids.org/pub/EpiReport/2006/04-sub_Saharan_Africa_2006_EpiUpdate_eng.pdf.
- World Health Organisation (2005). *Prevention and treatment of HIV-related infections World Health Organisation*. Retrieved February 4, 2006, from http://www.who.int/hiv/topics/opportunistic_infections/en/index.html.
- Zelnick, J., & O'Donnell, M. (2005). Impact of the HIV/AIDS epidemic on hospital nurses in Kwazulu Natal, South Africa: Nurses' perspectives and implications for health policy. *Journal of Public Health Policy*, 26, 163-185.