

An AIDS Prevention Strategy Involving Rural General and Dental Practitioners - L London, M Howard-Tripp



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Curriculum vitae

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Summary

Primary health care personnel are ideally situated to participate in AIDS prevention but are not effectively trained to do so. A survey is described in which GPs and dental practitioners were given literature on AIDS as well as condoms for distribution. After 6 months these doctors and dentists were evaluated and the overall results were very encouraging: a good response rate was achieved, most doctors used the information and found it useful and almost all would value continued education in this field. Larger scale interventions of this kind could be of great value in equipping a larger group of health care personnel in this field, especially medical benefit scheme personnel: a large avenue which already exists covering about 1,3 million beneficiaries.

S Afr Fam Pract 1993; 14: 149-55

KEYWORDS:

Aids-prevention; Research;
Health Education;
Contraceptive Devices, Male.

Introduction

Infection with the Human Immunodeficiency Virus (HIV) is likely to be the most formidable public health peril faced by humankind this century.¹ Rates of infection are increasing exponentially in South Africa with rapid doubling times amongst heterosexual populations.² Given that AIDS is a uniformly terminal infectious disease with presently little prospect of an effective vaccine³, it has been argued

that the only effective weapon is prevention, of which the cornerstone is education. The objectives of any educational programme could be considered to be one or more of the following: to impart knowledge; to reinforce or to change attitudes; and to reinforce or to change behaviour.³

At present there are two important sectors at which AIDS education should be aimed. The first because a change in their behaviour will reduce the rate of HIV transmission, and the second because they are in a position to influence the first group.³ Included in this latter group are the primary health care professionals, often the first people to be turned to in times of doubt or crisis.^{4,5,6,7,8} With the increasing media coverage and extensive awareness campaigns concerning AIDS, more people are likely to approach these health professionals for information and advice about AIDS and HIV transmission. In order to deal with these queries the basic resources required by the primary health care professional include: patience, tolerance, sensitivity and understanding, and in addition: a good understanding of the facts about HIV infection and AIDS, a familiarity with, and ease in discussing, different life-styles and patterns of sexual behaviour, and an awareness of community resources to which people can be referred for further help.⁵ The support staff of these health professionals, who often act as 'gate-keepers' and who have access to patients and patient records, also need to be educated in the tactful handling of patients, as well as needing education and support to help deal with their own feeling about AIDS.⁴

It is important that the primary

health care professional, when dealing with patients and AIDS, responds appropriately and from an informed point of view so that the patient receives the correct care and advice. However, a number of studies have shown that the health professional is often poorly informed about AIDS and HIV infection,^{9, 10, 11, 12, 13} and that it is not known how effective the attempts at educating the health professional have been.^{7, 14}

The Food Workers Medical Benefit Fund (FWMBF) initiated an ongoing HIV prevention programme for workers in the food processing industry in the Boland in 1989.¹⁵ As part of this programme, rural general and dental practitioners contracted to the Fund's panel system were each sent three general articles on AIDS^{1, 16, 17} accompanied by a sample of some 400 condoms for distribution to their patients early in 1990. It was hoped that this initiative would assist in encouraging practitioners to play an active role in AIDS prevention and complement the workplace-based educational activities to which Fund

Rates of HIV Infections are increasing exponentially in the RSA

members were exposed. Practitioners were further encouraged to request additional reading materials and condoms from the fund offices if needed. In order to evaluate this intervention, a follow-up telephonic survey of the practitioners was performed 6 months later.

The objectives of the study were:

1. To describe the age, gender and

practice histories amongst the practitioners.

2. To assess practitioners' knowledge, attitude and previous experiences in relation to AIDS and HIV infection, and their attitude toward compulsory testing for AIDS.
3. To ascertain how the practitioners handled the materials sent to them by the Fund and whether this was related to individual knowledge, attitude or previous experience.
4. To ascertain the practitioners'

feelings and attitude towards the intervention, and to identify possible areas for improving on the intervention in the future.

Methods

The study population consisted of all general practitioners (n = 46) and dentists (n = 18) who had been sent the three articles and condoms six months previously. The practitioners were surveyed by means of a semi-structured telephonic interview administered by two investigators in the language preference of the practitioner. Standardisation was

Table I - Scoring for handling, knowledge, perceived seriousness and previous experience

		Maximum
Handling		5
Read literature	2	
Staff read literature	1	
Distributed condoms	2	
Knowledge		9
HIV positivity projected, SA, 1991	3	
Proportion HIV progressing to AIDS	2	
Mortality from AIDS	2	
Length window period	2	
Perceived seriousness		9
HIV positivity projected, SA, 1991	3	
Proportion HIV progressing to AIDS	3	
Mortality from AIDS	3	
Previous Experience		5
Previously treated or referred HIV	2	
Attended AIDS course	2	
Staff training on AIDS	1	

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ensured by pre-testing and training in interview administration.

Answers to questions were grouped to estimate scores for

- (i) handling of the sent material (3 questions; maximum score 5)
- (ii) knowledge 4 questions; maximum score 9)
- (iii) perceived seriousness 3 questions; maximum score 9)
- (iv) experience with HIV infected patients (3 questions; maximum score 5). Table I illustrates information collected in each group.

Differences in proportions were tested by means of a Chi-squared test, or, where expected frequencies were too low, by means of a Fisher exact test. Odds ratios (ORs) were calculated as estimates of association for categorical variables according to Fleiss.¹⁸ Differences in median scores

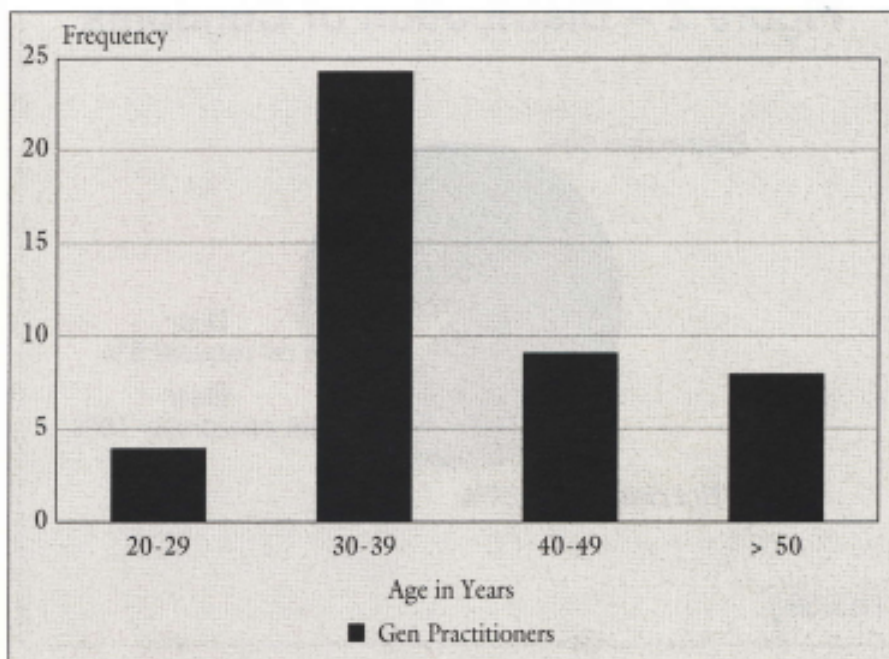
They did not rely on patient requests before distributing condoms

were calculated using a Mann-Whitney test and correlation between scores was estimated by calculating a Spearman's correlation coefficient for non-parametric data.¹⁹

Results

Of the 65 listed practitioners, 18 could not be traced and 2 declined to participate. This left a total of 45 practitioners (32 general and 13 dental) who were included in the survey giving a response rate of 69%. All subjects were male practitioners in small country towns and their age distribution is shown in figure 1.

Figure 1. Age Distribution



The mean number of years in private practice was 11,84 years, with a range of 1 to 39, and 62% of respondents were in solo practice. All the medical practitioners ran dispensing practices.

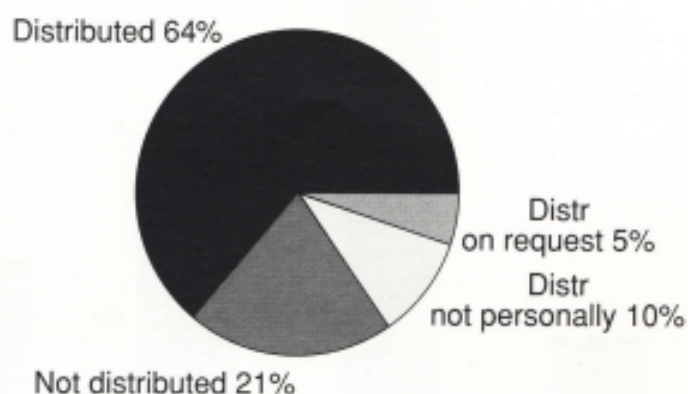
Eighty seven percent of the practitioners said that they had received the literature and condoms, with 85% of these reporting that they had read the literature. No significant difference was found between general and dental practitioners in the latter regard (Fisher's exact test; $p = 0,66$). The majority (82%) of those that read the literature thought that it was either useful or very useful. None reported the literature as being useless. 44% of the practitioners who had received the literature said that they had given it to their staff to read.

Seventy-nine percent of the

practitioners who said that they had received the literature and condoms reported distributing the condoms (Figure 2). Medical practitioners were more likely to distribute the condoms than the dental practitioners (Odds Ratio = 6,94; Fisher's exact $P < 0,05$). Of the 31 practitioners who did distribute the condoms, 29 gave them to their patients, one gave them to his staff, and one gave them to his friends. The majority of practitioners did not rely on patient requests before distributing condoms.

Twelve practitioners (27%) indicated that they had previously attended courses on HIV and three had sent their staff for training. Most practitioners indicated that they would like to be sent more condoms and/or literature (Figure 3), particularly pamphlets for patients.

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Figure 2 – Distribution of Condoms

(n = 39)

Sixty eight percent reported that they had already begun providing information on AIDS to their patients prior to receiving the sent materials. However, none of the doctors had actively contacted the fund offices with requests for additional materials by the time the evaluation commenced.

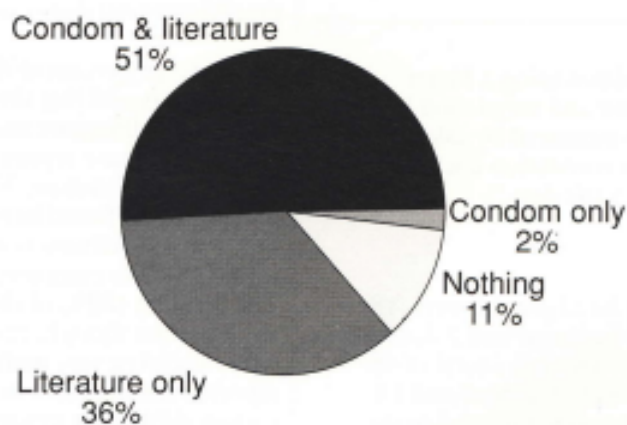
The distribution of the scores obtained for the questions on knowledge of, perceived seriousness of, and experience with AIDS and HIV infection are shown in figures 4, 5 and 6. From the data it appears that perceived seriousness scored higher than knowledge and that most practitioners had little direct experience with AIDS and HIV infection. There were no statistically significant difference between general and dental practitioners with regard to these scores (Mann-Whitney test;

$p = 0,45$). The scores for knowledge, perceived seriousness and previous experience were each separately correlated with scores for handling of sent material but no statistically significant correlations were found (Spearman's correlation coefficient $< 0,17$ for all three analyses).

Sixty-seven percent of the practitioners stated that they thought that testing for AIDS should be compulsory, the most common candidates for testing being given as: patients with sexually transmitted diseases; immigrants to South Africa; and young males.

Discussion

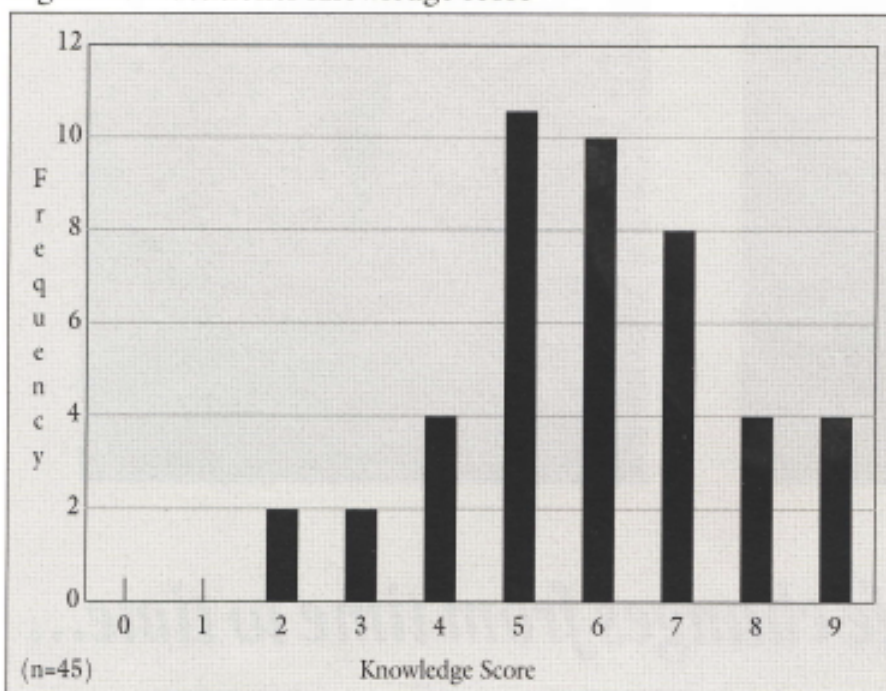
This study has explored the value of AIDS control interventions directed at general medical and dental practitioners who are part of a

Figure 3 – GP Follow up preference

(n = 45)

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Figure 4. Practitioner knowledge score

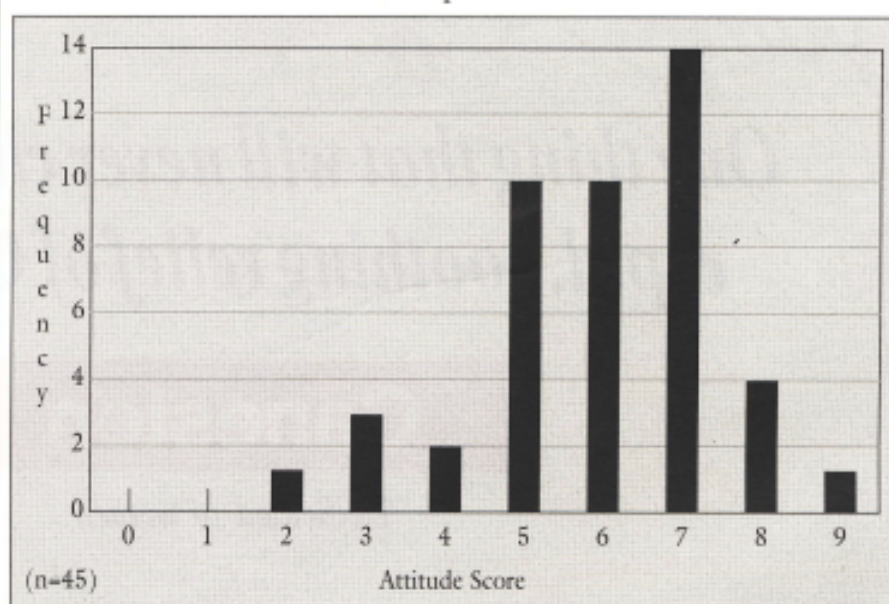


Encouraging results in this study were that the majority of practitioners both read the literature and distributed the condoms, and the latter was generally not reliant on patient request. Even prior to being sent material, 68% of practitioners had already been providing educational material to patients, though it was not possible to assess the nature of these materials. The dental practitioners were, however, less likely to distribute the condoms to their patients than the general practitioners, the reason most often given being that they thought it was inappropriate for dentists to hand out condoms. Less than half of the practitioners gave the literature to their staff to read, and this is an aspect that could be highlighted and investigated further in future studies.

Lewis et al¹⁰ found that when they

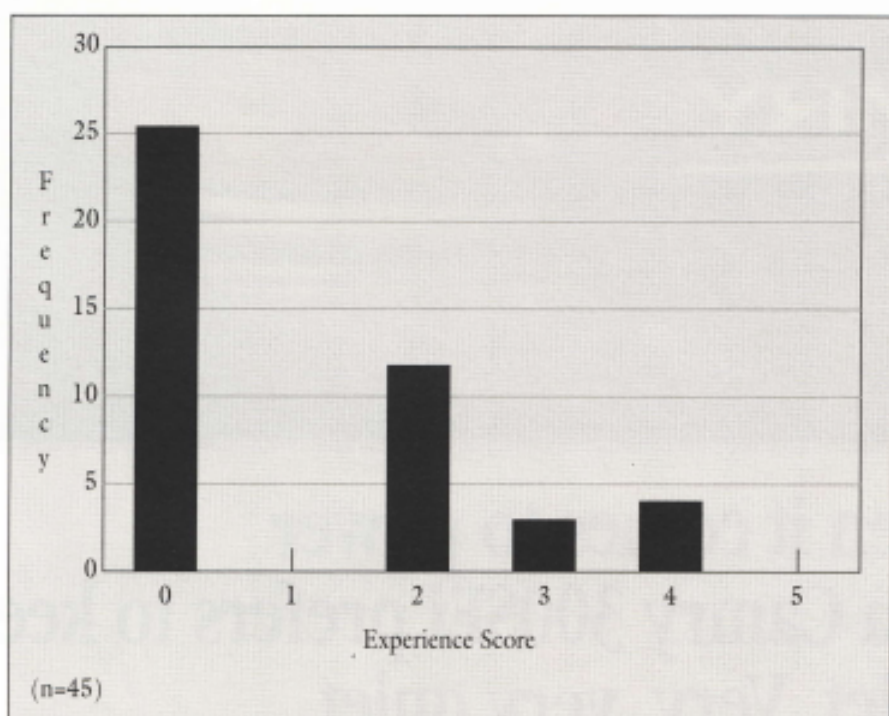
medical benefit scheme panel. In 1989 there were approximately 60 medical benefit funds registered in South Africa, each with a system of panel doctors and other health practitioners, covering an estimated 1,3 million beneficiaries.²⁹ An important avenue therefore exists to reach a large constituency of both patients and health care providers through the administrative arms of these funds. However, given their geographical isolation, and the nature of their practices, rural general practitioners are unlikely to be representative of the profession as a whole, and the results of this survey should be generalised with circumspection. Nonetheless, this evaluation has generated useful information on the value of such interventions, with an acceptable response rate.

Figure 5. Practitioner attitude score. Perceived seriousness of AIDS epidemic



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Figure 6. Practitioner experience score.
Training courses or treatment of HIV



provided a group of primary care physicians a variety of continuing education materials about AIDS, including videotapes, audiotapes, and printed materials, only half of the physicians utilised them. The better response in this study may be accounted for because the materials provided in this study were more easily utilised by the practitioners.

The only effective weapon is prevention

This is an important aspect to consider in obtaining the co-operation of private practitioners and other primary

health care personnel in future AIDS prevention exercises. More specialised material such as video and audiotapes should perhaps be reserved for use at small workshops or seminars, which is another area that needs to be addressed, judging by the small number of the study's practitioners who reported attending such meetings.

Data obtained in this study regarding knowledge of, perceived seriousness of, and experience with AIDS and HIV-infection is consistent with that of other studies,^{9,10,11,12,13} in that practitioners would probably benefit from further education about AIDS and HIV infection. Of concern was the high proportion of respondents who favoured mandatory testing for high risk groups. It may be

worthwhile following this as a marker with further interventions.

Perhaps surprisingly, there did not appear to be any correlation between practitioners' knowledge, attitude and experience in relation to AIDS/HIV infection, and their handling or non-handling of the sent materials. One explanation for this might lie in the choice of weighting under the

The most common candidates: patients with STD's, immigrants to the RSA and young males

scoring system applied to the data, which may artefactually obscure a significant association. However, in the face of very low correlation coefficients (less than 0,2), it seems implausible that there was an association that was missed by the study. The low correlation may be a positive factor for educational programmes if personal practitioner variables other than the intervention do not bias the frequency of a desired outcome. However, bias may still be introduced if the accompanying message from the practitioner is shaped by his or her attitude, knowledge and experience. It may be possible to address this discrepancy as the majority of the practitioners were receptive to the idea of being sent more educational material. There was, however, a tendency to place emphasis on easy-to-read material in the appropriate language for the patient, the practitioners perhaps underestimating their own information needs.

This study has suggested the value of

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AIDS control interventions directed at general medical practitioners belonging to medical benefit fund panels. Similar interventions may have an important role to play for other primary health care personnel and this hypothesis needs further exploration. Attention would have to be paid to achieving a balance between literature intended for the professional, and that intended for

Medical benefit health care workers are a strategic and valuable target group for AIDS prevention

the patient. It would also have to be determined as to what is deemed appropriate advice and action for the different sectors of the primary health care providers, so that future interventions can be 'loaded' in the most effective direction. Medical benefit panel health care providers are an important target group for AIDS prevention initiatives and such strategies could make an important contribution to control of the AIDS epidemic in the future.

Acknowledgements

The authors would like to acknowledge Ms Jenny Goy and Dr Mohamed Jebbhay for their assistance and to thank the Food Workers Medical Benefit Fund and the medical and dental practitioners on their panel for their cooperation.

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