

Services rendered and barriers faced by public sector oral hygienists in two provinces of South Africa

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ABSTRACT

Oral hygienists (OHs) drive oral disease preventive programmes and promote good health practices. South Africa (SA) has a shortage of this cadre of health worker especially in the public sector.

This 2009 project was the first effort to determine the professional activities performed, barriers faced and work-related issues that affected OHs employed at that time in Gauteng and in KwaZulu-Natal. The cross-sectional descriptive study used a self-administered questionnaire developed after a comprehensive literature review. The response rate was 78% (N=32). Almost all (94%) respondents gave "providing a service to the community" as the main reason for working in the public sector, where they were committed to offering preventative oral and dental services at clinics and in the community. Common employment problems were poor salaries (94%), lack of resources (81%) and the perception that opportunities for promotion are limited (78%), compounded by poor recognition of the services provided by OHs. In order to more effectively utilise the skills and commitment of OHs in delivering preventive dentistry in the public sector, such problems facing the profession should be addressed.

INTRODUCTION

The South African National Department of Health in 2005 adopted a re-evaluated National Oral Health Strategy which determined how oral health care should be delivered in the

ACRONYMS

GIC: Glass Ionomer Cements

OHs: Oral Hygienists

OHE: Oral Health Education

MDUs: Mobile Dental Units

various provinces.¹ The implication and application of this strategy as it applies to oral hygienists (OHs) is of great importance as it requires them to be in the forefront in the delivery of preventive oral health services and promoting health. OHs are regarded as the drivers of prevention programmes for the control of dental caries and periodontal diseases.²

The profile of oral disease in South Africa suggests that most preventive oral health services have the potential to make a significant impact on dental treatment needs.³ Since the majority of the population (80%) depends on the public health sector for dental treatment, OHs in the public sector have a crucial role to play in the provision of oral health services.³ OHs could by their efforts in preventive dentistry reduce the prevalence and prevent the progression, of oral diseases which could otherwise result in early tooth loss⁴ and the consequent demand for Rehabilitative Dentistry requiring additionally skilled personnel (dentists) and expensive special resources.

There is evidence of increasing frustration among OHs employed in the public sector, reflecting problems which limit their opportunities to perform their full range of clinical and non-clinical duties.⁵ This could be due to factors such as: lack of resources, problems in management, lagging morale, poor salaries and the low priority that prevention of oral diseases is given within the public sector.⁵

In South Africa, the public oral health sector offers clinic and community-based oral hygienist services. The clinic-based services usually include examinations, oral hygiene instruction, scaling, polishing, root planing, fissure sealants and professional topical fluoride treatments. The community-based services are performed at sites away from the dental clinic such as schools, crèches, HIV institutions and other community facilities where the focus is on primary preven-

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tion. These approaches include oral health promotion and protection initiatives that incorporate oral health education, brushing, fluoride and fissure sealant programmes. Oral hygienists are therefore responsible for developing, implementing and co-ordinating the preventive dentistry programmes at schools, a main component of community-based oral health care services.

No recent work has been done to describe and justify the role of public sector OHs in South Africa. Optimal utilisation of OHs in delivery of disease prevention strategies may depend on determining their current role in the public sector. The purpose of this study was therefore to determine the activities of, and the barriers faced by OHs employed in the public sector in Gauteng (GP) and Kwazulu-Natal (KWZ) provinces of South Africa.

Methodology

This was a cross-sectional descriptive study. The study population consisted of all OHs registered with the Health Professions Council of South Africa who were in either full-time or part-time employment within the public sectors in GP and KZN provinces during 2009. The human resource records of the Oral Health Services in GP and KZN showed that 21 and 20 OHs were employed in these provinces respectively ($n=41$). All received a hand-delivered questionnaire. Participants were provided with an addressed postage paid envelope in which to return the self-administered questionnaire. The initial response after a six week period was less than 50%. A second set of questionnaires was sent out and after an additional four weeks, those completed questionnaires received by that stage were accepted as constituting the final sample size.

Questionnaire

The questionnaire comprised 15 closed and two open-ended questions formulated to obtain information about demographics, activities performed and barriers faced whilst working as an oral hygienist within the public sector. The activities were separated into two groups: community-based and clinic-based services. The work timetable provided a maximum of ten sessions per week. The common schedule required that in the morning session the OHs went out to schools, satellite clinics, crèches and mobile dental units to offer community-based services and in the afternoon session they performed multiple clinical services in dental clinics. OHs were asked to indicate the types of services and treatments they offered, in general, for each of the ten sessions in a representative week. The questionnaire required an estimate of the number of sessions spent on a weekly basis in offering the following services both in the communities and in the dental clinics: examinations, brushing programmes, brushing and fluoride programmes, scaling, polishing and root planing, fissure sealants, HIV related procedures, topical fluoride applications, temporary restorations, administering local anaesthetics and re-cementing of crowns and bridges.

The questionnaire was piloted amongst OH staff members at the University of the Witwatersrand, Johannesburg. Ethical approval was obtained from the Human Research Ethics Committee at the University of Witwatersrand and permission to conduct the study was granted by the Departments of Oral Health Services in both provinces. Anonymity and confidentiality was ensured. Data was analysed using the Epi Info software package.

Table 1: Level of employment and distribution of OHs by province

Level of employment	GP	KZN	Total number OHs
Junior	4	8	12 (37%)
Senior	1	4	5 (16%)
Chief	10	5	15 (47%)
Assistant director	0	0	0 (0%)
Total	15 (47%)	17 (53%)	32 (100%)

GP: Gauteng province; KZN: KwaZulu-Natal province

Table 2: Mean number of procedures performed per week in the community and in the clinic ($n=320$)

Procedures performed	Number of sessions per week spent on average on various procedures	
	Community based (%)	Clinic based (%)
Examinations	19 (13)	34 (19)
Oral health education (OHE)	55 (38)	24 (14)
Brushing programmes only	35 (24)	0
Brushing and fluoride programmes	10 (8)	0
Scaling, polishing and root planing	6 (4)	44 (25)
Fissure sealants	7 (5)	26 (15)
HIV related procedures	7 (5)	15 (8)
Topical fluoride applications	0	21 (12)
Other procedures	4 (3)	13 (7)
Total	143 (100)	177 (100)

RESULTS

The response rate was 78% ($n=32$) and the majority (94%) of responding OHs were employed full-time. The mean number of years of service was 9.43 years ($SD = +/6.5$). The breakdown according to the level of employment and distribution is shown in Table 1.

The 32 completed questionnaires gave information on a total of 320 sessions. These were divided into clinical and community based services. The numbers of sessions spent on each treatment activity were then totalled and the means were calculated (Table 2). Of the ten sessions per week, three quarters (74%) of respondents spent five sessions rendering community-based services and five sessions rendering clinical services. In the community-based sessions, most involved the imparting of OHE (38%) and the monitoring and implementing of brushing programmes (24%). Only 4 sessions (3%) were spent on other services such as the placement of glass ionomer cements (GIC) or temporary restorations. Of all possible services, 90% were provided at schools, 57% at HIV institutions and 43% at crèches. For the clinic-based services, most sessions were spent carrying out scaling and polishing and/ or root planing (25%), examinations (19%) and oral health education (OHE) (14%). Other services (7%) included the administration of local anaesthetics and the placement of temporary restorations. There was no statistical relationship between clinical and community services and most OHs divided their time equally. The clinic-based afternoon activities involved treatment of individual patients. Almost two thirds (61%) of respondents provided services to fewer than 20 patients per week while the remaining 39% reported treating more than 20 patients per week.

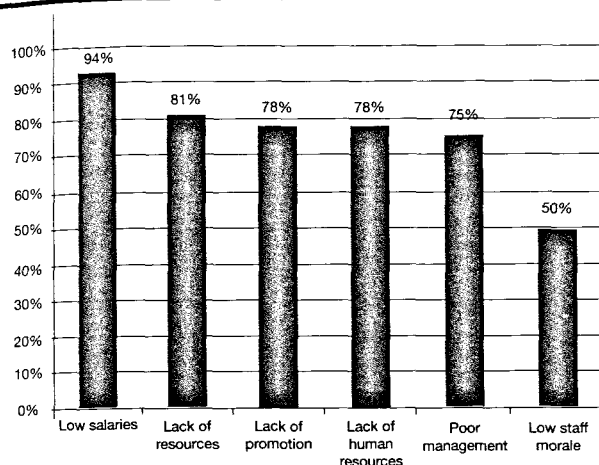


Figure 1: Problems as reported by the OHs which limit their scope of work (N=32).

More than 90% of respondents cited "providing a service to the community" as their main reason for working in the public sector. Almost two thirds (63%) remained in the public sector because of professional satisfaction while 37% indicated that they continued to work in the public sector because of job security.

Figure 1 shows the problems reported by the OHs. Almost all (94%) of the OHs indicated that salaries in the public sector were not competitive; 81% reported that there was a shortage of resources and 78% observed a lack of opportunities for promotion and a shortage of either OHs or dental nurses. Half of the respondents reported low staff morale. There were two open ended questions related firstly to the problems or barriers that OHs faced and secondly to the possible improvements that could be made to facilitate and enhance the working conditions amongst OHs in the public sector. The answers to the first question were similar and the following three themes were identified. There was a generalised perception that the salaries were inadequate and some of the responses included: "Managers do not see the need for us to be promoted for better salaries"; "Poor motivation for promotion and salaries"; "No recognition given for academic achievements"; "Salaries must be reviewed as oral hygiene is one of the essential services in primary health care".

Many felt that there was a shortage of equipment and staff and these were some comments: "Two Mobile Dental Units for eight oral hygienists"; "Not enough dental materials, as that is dependent on the availability of funds"; "Too few oral hygienists"; "I am the only oral hygienist in the region"; "Schools have more than 500 children, difficult to manage".

The respondents also felt that there was low staff morale as confirmed by these responses: "Have been employed for seven years and am still a junior level oral hygienist"; "Employed for 12 years as a dental assistant, studied for three years and employed for eight years as an oral hygienist in the same institution and still employed at a junior level".

There were only two responses to the second question, regarding the possible improvements and both were of the opinion that more resources should be allocated in order to allow OHs to carry out their core duties.

DISCUSSION

The response rate was much higher than for both the National Surveys^{6,7} which reported response rates of 47% and 51% respectively. This could be due to the study questionnaires being hand delivered; a focus on only two provinces and as a result of the follow-up. The majority (90%) of community-based services were provided to learners at schools, and logically these were usually morning sessions as determined by schools to prevent undue interference with the school curriculum. More than a half of the clinical sessions delivered by OHs (52%) were spent in providing OHE to individuals and to the community (Table 2). OHE is an essential part of health promotion and education as it aims to control plaque accumulation and to influence dietary practices for the prevention of oral diseases.

Examination, charting and screening is necessary for early identification of those patients at high-risk for dental caries and periodontal diseases. More than 10% of OHs reported doing examinations in the community. This not only assists in early diagnosis of oral diseases, but more importantly, non-restorative needs such as OHE can be addressed by OHs.⁸

In SA, the most common need in children is preventive services which include fissure sealants.⁴ The low response for fissure sealants (5%) was not unexpected due to the frequent reports of inadequate and insufficient dental facilities, staff members, equipment and materials. Access to mobile dental units (MDUs), portable dental equipment and adequate supply of materials would greatly facilitate the provision of fissure sealants in the community, an activity which is regarded as an effective and efficient preventive intervention. More than half of the OHs performed activities at HIV institutions. Due to the high prevalence of HIV/AIDS (30.2%) in South Africa¹⁰ there has been an increase in the number of institutions established for the care of patients suffering from HIV/AIDS. Studies indicate that over 50% of patients with HIV/AIDS present with oral lesions associated with HIV.¹¹ Oral hygienists therefore have a valuable role to play in the oral health care of these patients.

The low numbers of other procedures that were being performed (3%), could be attributed to a lack of need for these services, the inability of the OHs to perform these functions, the environment not being conducive or a lack of the necessary materials and facilities.

Almost two thirds of respondents provided services to less than 20 patients per week in the two hour afternoon sessions devoted to individual treatment. This could be due to the length of time each procedure takes, the low utilisation of services, low clinic attendances, failed appointments or the lack of awareness of oral health in the population.¹² A quarter of all the clinical sessions per week (25%) were utilised for the delivery of scaling, polishing and root planing procedures. This was not surprising as the National Oral Health Survey¹² reported that the presence of calculus and gingivitis was the most common periodontal condition amongst adults. Almost 15% of OHs reported providing OHE to individual patients. OHE is important to create awareness and promote good oral health practices in individual patients and the community. If OHs performed the examination and chartings, OHE, scaling, polishing and root planing, greater opportunities and additional time would be created for dentists to perform more complex procedures. The role of

the OH is therefore not only to provide preventive services but also to facilitate a more effective and efficient delivery of comprehensive services by the dentists.

Just over 10% of OHs applied topical fluoride and a similar number (12%) placed fissure sealants to patients seen at the dental clinics. These are procedures essential for the prevention and control of dental caries.

Oral hygienists can be employed at four levels in the public sector with clear guidelines regarding their remuneration. The lowest remuneration is at a junior level, increasing to a senior, chief and the highest being assistant director. In both KZN and GP, OHs were employed at only three levels, with almost half as chief OHs. No OH was employed as an assistant director. More than 90% of OHs reported that the salary structure in the public sector was poor and not competitive with that of the private sector. This was coupled with the lack of promotion opportunities (78%) as the main reason for the low staff morale. Many felt that they had remained too long at the same level of employment in spite of meeting the requirements for promotion and advancement. It is expected that with the introduction of the new dispensation for public workers and the possible introduction of over-time for OHs, these issues could be addressed.¹³ It was felt that there was a lack of recognition of the profession and insufficient motivation by their managers to the respective Departments of Health to improve salaries or to create opportunities for promotion. Oral hygienists also reported that academic achievements were not recognised towards enhanced remuneration or promotion.

Almost 80% reported a shortage of either OHs or dental nurses in the workplace. In Australia the high demand for OHs in the private sector has empowered public sector OHs to demand better salaries. Oral hygienists in Australia, Denmark and Switzerland receive the highest remuneration when compared with their international counterparts.² Gordon and Rayner⁷ reported that OHs felt that more public sector positions should be created in SA.

Bhayat et al¹³ observed that in South Africa less than 10% of all OHs worked in the public sector, which is one reason for the lack of sustainable and effective community preventive oral health programs. And yet, ninety four percent of OHs cited "providing a service to the community" as the main reason for working in the public sector. Similarly other studies in both private and public sectors in SA have reported that 94% of OHs believed they provided a worthwhile service to the public and contributed to community health which in turn provided career satisfaction.^{6,7} More than 60% said they remained in their jobs because of professional satisfaction. This was consistent with the findings of Gordon and Rayner⁷ who reported that the majority of OHs were satisfied with their choice of career.

Almost eighty percent of OHs considered that too few OHs were employed in the public sector.

These findings were similar to those reported by Gordon and Rayner.⁷ The poor OH to population ratio limited the provision of comprehensive preventive programs. Oral hygienists experienced challenges accessing resources such as finances, transport, MDUs, equipment and dental materials. Bhayat et al¹³ reported that the lack of OHs and poor working conditions impacted on the implementation of public pre-

ventive programs. The lack of human and other resources has a direct effect on the level and quality of oral health services being provided in the public sector.

Seventy five percent of OHs indicated they experienced problems with management in their facilities. This could be attributed to most dental clinics being managed by clinicians (doctors and nurses) who must deal with many other medical emergencies on a daily basis. Oral health and oral hygiene in particular may inevitably be neglected. The efficacy of OHs in the public sector is related to the support and attitudes of their supervising dentists or managers. Mutual recognition of professional expertise and contribution could help ease some of the tension and conflict that may be present, as has been suggested by other studies.²

CONCLUSION

It is evident that the role of OHs is to be a leader and provider in oral health education and promotion with the objective to increase oral health awareness and to decrease the need for curative care. In order for this cadre to be effectively utilised, however, several issues needs to be addressed. These include recognition of the services provided by OHs, creation of opportunities for promotion, improvement of salaries and enhanced provision of resources.

Declaration: No conflict of interest declared.

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