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Attitudes of South African oral hygienists towards compulsory community service

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Abstract: Compulsory Community Service (CCS) was introduced into the health service by the government to address the shortage and maldistribution of health professionals within the public sector. The aim of this study was to assess the perceptions of oral hygiene (OH) students, registered in 2004 at the five dental universities regarding the introduction of a 1-year-long CCS. *Objectives:* To determine: (a) the students' socio-demographic profile and (b) their attitudes towards CCS. *Methods:* A self-administered questionnaire was hand delivered to all OH students who were registered during 2004 at the respective dental universities. *Results:* The study yielded a response rate of 70% (109) with the average age of participants being 21.4 years. Most students were female (94%) and more than half were White (52%). More than half (53%) did not want to perform CCS even though 75% acknowledged its' importance. The most common concern for not supporting CCS was security (89%). Ninety per cent (90%) indicated that their preferred tasks would be to engage in clinical work and oral health promotion. *Conclusion:* Although the majority of participants supported the principles of CCS, a significant number were against the introduction citing security as their main concern. Most of the students preferred to perform clinical work and preventive programmes during their CCS.

Key words: Compulsory Community Service; oral hygiene training and teaching; oral hygienists

Introduction

There is a shortage of human resources to meet the oral health needs of communities in South Africa (1, 2). This shortage has been exacerbated with the introduction of free oral health

services at Public Oral Health (POH) facilities in Primary Health Care (PHC) settings since 1994 which has resulted in an increase in the patient attendances, although the number of personnel have remained fairly stable (3, 4).

The results of the 1999–2002 National Children's Oral Health Survey (1) for South Africa indicated a huge unmet need for basic oral healthcare procedures such as restorations, extractions and fissure sealants. A major concern was the large amount of untreated caries in young children which varied between 45% and 60% within the nine provinces.

Dentists alone cannot meet the current high unmet oral health needs of the population (2). The recommendations made by Van Wyk (2) which were also supported by Gordon (5), suggested that most of the oral health problems in South Africa could be prevented and the treatment needs could be carried out by dental therapists and/or oral hygienists. Gordon (5) analysed the oral disease profile in South Africa and reported that the majority of patients who seek dental treatment in South Africa require dental extractions and basic restorations. She further suggested that most oral conditions could be prevented if adequate preventative programmes were in place. However, due to a number of reasons including a lack of resources, these preventative programmes have not yet been effectively implemented.

Oral Hygienists in South Africa are trained to perform the following procedures (6): dental examinations, oral health education and promotion, scaling and polishing, simple restorations using the atraumatic restorative technique (ART), administering local anaesthetics, re-cementing crowns and bridges and the taking of radiographs and dental impressions. Eighty per cent of the oral hygienists in South Africa work in the private sector and this could explain to some extent the lack of sustainable and effective public preventative programmes (5). The reasons for this include the lack of posts in the public sector, poor salary packages and poor working conditions (5). Given the scope of their functions and the needs of the South African population, oral hygienists could play a huge and essential role within the public sector by providing basic preventative oral health packages.

In December 1997, the Health Professions Amendment Act (7) endorsed the concept of Compulsory Community Service (CCS) which was introduced for all health professionals. Currently, dentists serve a 1-year period of CCS. The aim of the government is to include all other oral health personnel, including oral hygienists, into this year-long programme.

Some of the reasons for introducing CCS are to improve the provision of health services to all citizens in South Africa; to improve the clinical skills of newly qualified health professionals; to address the lack of doctors and other health workers working in the public service rural hospitals and to increase the human resource capacity in the public sector (7).

If oral hygienists are compelled to perform CCS, they could supplement and enhance these prevention programmes which are desperately needed within the communities.

No study has evaluated the perceptions of OH students either locally or internationally regarding the introduction of CCS. The aim of this study was to assess the attitudes of the undergraduate oral hygiene (OH) students at the five dental universities in South Africa regarding the introduction of CCS.

The objectives were to obtain demographic data and assess their attitudes towards the introduction of CCS.

Methods

This was a cross-sectional descriptive study. All oral hygienists who were registered during 2004 at the five dental universities that are accredited to offer the OH degree in South Africa were included. The five dental universities are the Universities of Kwa-Zulu Natal (UKZN), Limpopo (MEDUNSA campus), Pretoria, Western Cape (UWC) and Witwatersrand (Wits).

The survey instrument consisted of 17 closed and two open-ended questions eliciting information regarding the students' socio-demographic profile; their perceptions and attitudes regarding CCS and possible activities they would like to perform whilst carrying out CCS.

The data were analysed by means of descriptive statistics together with bivariate analysis using the Epi Info version 3.2.2 software package (CDC, Atlanta, GA, USA). The data from the two open-ended questions were analysed separately. The Mantel–Haenszel chi-squared test and correlation analysis (r^2) was used to determine the association between the test variables and the willingness to perform CCS. The confidence levels were set at 95% and values of $P < 0.05$ were considered statistically significant.

Results

A total of 109 of 156 (70%) students responded to the questionnaire with the majority being female (94%). The average age of the respondents was 21.4 years (range 18–37 years; SD 2.8).

Table 1 represents the response rate from the dental universities and the racial breakdown of the students. The UWC had the most number of OH students (59) registered during 2004 and the highest response rate (78%). The University of Limpopo had the lowest response rate (39%) and the least number of students registered (13).

Table 1. **The response rate and racial distribution by the University**

Dental University	Asian	Blacks	Coloureds	Whites	No. of respondents	Total no. of students	Response rate (%)
Pretoria	0	5	0	30	35	50	**70**
Kwa-Zulu Natal	4	3	0	1	8	13	**62**
Western Cape	1	11	17	16	46	59	**78**
Limpopo	1	4	0	0	5	13	**39**
Witwatersrand	2	3	0	10	15	21	**71**
Total	**8** (7%)	**26** (24%)	**17** (16%)	**57** (53%)	**109**	**156**	**70**

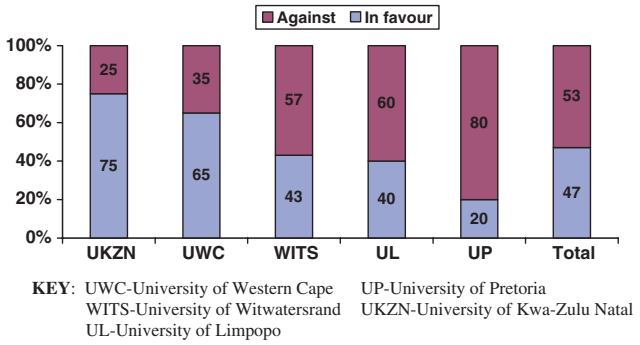

Fig 1. Students' willingness to perform CCS amongst dental universities (n = 109).

More than half of all respondents (53%) were White * with the majority from the University of Pretoria (85%).

As there were no significant differences in age, gender and race between the different dental universities, the results were pooled and analysed as a single cohort. Those who were willing to perform CCS (47%; n = 51) listed the following reasons for their positive attitude: (i) CCS would improve the oral health of disadvantaged communities; (ii) it would improve their confidence and clinical skills and provide employment opportunities for them.

More than half of the respondents (53%; n = 57) felt that CCS should not be introduced for the OH profession. Some of their reasons for not wanting to perform CCS included concerns about security, financial and personal implications, religion and being coerced into performing CCS without prior notification during their initial registration and their subsequent training.

A significant number of the respondents (83%) who were against the introduction of CCS were White students registered at the University of Pretoria (P = 0.001). The majority of students from the Universities of Kwa-Zulu Natal and the Western Cape (Black, Asian and Coloured) were in favour of CCS (Fig. 1).

A significant number of students (75%) were of the opinion that the introduction of CCS would improve the health of the communities in which they would be serving (P = 0.02). The students chose various activities that they would like to perform during their CCS (Table 2). They were allowed to choose more than one option and most chose to perform Clinical Work (scaling and polishing, restorations, fissure sealants, administering local anaesthetics and taking of impressions). Other activities included health education/promotion and the implementation of school programmes.

The majority of students preferred to perform their CCS in the Western Cape (38) and Gauteng (30) provinces as shown in Fig. 2. Over 95% of respondents chose their resident province as their preferred choice for carrying out CCS (P = 0.02).

Table 2. **Activities that students would like to perform during CCS**

Preferred activities	Respondents	Percentage
Clinical work	79	51
Health promotion	65	42
School programmes	37	24
Management	18	12
Research	9	6

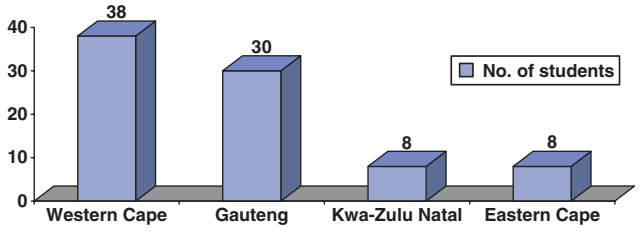

Fig. 2. The provinces that were chosen for performing CCS (n = 84).

*Prior to 1994 all people in South Africa were classified African, Indian, Coloured or White according to the Population Registration Act of 1950. The use of these terms does not imply the legitimacy of this racist terminology, but is necessary for highlighting the impact of the former apartheid policies on people in this country.

Discussion

The response rate varied between 78% (University of Western Cape) to 39% (University of Limpopo). The low response rate from the University of Limpopo was attributed to the students writing examinations during the study period. However, the overall response rate (70%) was disappointing given the importance of CCS for OH students and the captive target audience that was involved in the study.

The majority of respondents were White students and most of them were registered at the Universities of Pretoria and Witwatersrand. These two universities catered mainly for White students in the past and this racial imbalance is possibly reflective of their student intake. It must be noted however, that this racial profile is not representative of the province in which these universities are situated and these universities should adjust their intake criteria to become more racially representative. The University of Limpopo had no White students responding to the questionnaire. This is also not representative of the province and needs to be addressed. The respondents from the Universities of the Western Cape and Kwa-Zulu Natal showed a racial distribution which was more reflective of the communities in which they are located.

One of the most common reasons cited by the respondents was fear for their safety and a lack of security in their working environments. Given the high and violent crime rate in South Africa (8), this response is not entirely unexpected as the vast majority of OH students are female. However, studies on medical and dental graduates who previously performed CCS reported no crime-related incidents (9, 10). The fear expressed by OH students could be due to an overall sense of crime in the country rather than specifically associated to the healthcare facilities. These facilities in which CCS students are placed are often linked to central hospitals and this results in the students residing within these facilities and travelling together with other health professionals (dentists and medical doctors) into rural areas. It must also be noted that although CCS was introduced to try and address the imbalance in health professionals in rural areas, many dental CCS students are being placed in urban areas. Reasons for this include the high demand of dental services within urban areas and the shortage of dental staff at these healthcare facilities. As a result, OH students may not have to travel far nor reside alone and hence their expressed fear may not be as great as they perceive it to be.

Many of the students indicated financial and personal (student loans, marriage, children, etc.) commitments for not wanting to do CCS. Some of the students wanted to get married and settle down and others wanted to have children. They therefore felt that a year-long displacement from their spouses/children was not acceptable.

Among those who indicated they wanted to do CCS, many felt that it would improve their clinical skills and allow them to provide basic oral health services for people living in rural and disadvantaged areas. These reasons were similar to those cited by medical doctors and dentists (9, 10) who had completed their community service in the past and reflected on its positive outcomes.

By allowing oral hygienists to carry out CCS, it would increase the number of staff within the public sector and possibly address some of the unmet dental needs within the country. However, for this to occur, the Department of Health must be committed to the creation of more posts for the community service oral hygienists. The oral hygienists could implement brushing and flossing programmes to prevent oral diseases. They would also be able to place class I restorations using the ART. These preventive and curative programmes would be in alignment with the tenets of the National Oral Health Policy which stresses prevention and the relief of pain and sepsis (11).

Most of the students chose to perform clinical work; health promotion programmes and school brushing programmes. If the students were allowed to perform these activities during their CCS, it could address some of the oral health needs of the country (2, 3).

A significant number of students preferred to perform CCS in their resident provinces namely the Western Cape (38) and Gauteng (30) respectively ($P = 0.02$). However, most of the students who responded resided within these provinces and this may not be a true reflection of students from other provinces as other studies on dental (10) and medical students (9) showed no significant relationship between the students' residence and the location in which they performed CCS.

Limitations

The respondents were well aware that they would not be compelled to personally perform CCS and this may have influenced their responses.

Conclusions

Although most students accepted the importance of CCS, majority of White students were not in favour of doing it. The most cited reason was the lack of security. The students would

prefer to be involved with clinical activities and school prevention programmes during their CCS. A significant number of respondents indicated that they would like to be placed in the province of their residence during CCS.

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