ISSUES IN MEDICINE

Community service doctors in Limpopo province

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The shortage of health professionals, especially doctors, in public hospitals is a major health problem in South Africa. These shortages have been and remain particularly dire in rural areas and are largely associated with the poor conditions of services and inadequate support structures within the public hospitals, which in most instances fail to attract and retain health professionals.[1,2]

In 2002, Hlangani[3] found that there were at least 29 200 vacant health professional posts in public hospitals throughout the country. Limpopo province (LP), with a population of 5.6 million, had 4 395 vacant posts. Of the 1 079 medical doctors registered with the Health Professions Council of South Africa as practising in LP, less than 60 were registered as full-time employees in public hospitals. At the time the majority of the public hospitals in LP were run by part-time doctors, community doctors and Cuban doctors.[4] Recent reports have indicated that public health services in LP are on the brink of collapse and struggling to meet their service delivery obligations.[2,5]

Implementation of the legislation[6] for community service for health care professionals in 1998 aimed primarily at reducing the shortage of doctors in public hospitals, thus improving the provision of health services. In addition, community service doctors (CSDs) get the opportunity to develop new skills and confidence[7] which helps them in their professional development.

Each year more than 1 500 health graduates are allocated to hospitals to do community service throughout the country, with more than 25% going to district hospitals.[7] By the end of each year these doctors have become skilled and valuable members of the health team, able to cope with patient demands within the available resources at district hospitals.[7]

However, very few of these CSDs choose to remain at public hospitals despite the fact that the vast majority considered that they made a difference during their community service year.[2,7] Several reports[2,3,7] indicate that CSDs are overworked and not satisfied with their working conditions. Indications are that senior doctors are also becoming increasingly dissatisfied with conditions at their workplaces, and CSDs are now concerned about receiving adequate clinical training and experience as many of them are left unsupervised.[4] In 2001 Reid reported that the majority of CSDs were working without senior doctors to support them in case of emergency.[7]

The aim of this study was to assess the work experiences of the CSDs in the public hospitals of LP during 2003.

Methods

A cross-sectional descriptive study was done of 103 CSDs in the 6 districts of LP (namely Bothlabelo, Capricorn, Mopani, Sekhukhune, Vhembe and Waterberg). A list with names of all 103 CSDs working in 36 public hospitals was obtained from the community service co-ordinator. Ethical clearance was received from the Ethics Committee at the University of Venda and the Department of Health and Welfare in LP. A letter was written to all managers explaining the purpose of the study, and requesting permission to conduct it.

The number of CSDs allocated per hospital ranged from 0 to 6 doctors. The mean number of CSDs per hospital was 3. Where there were fewer than 4 CSDs per hospital, all 4 were included in the study. In hospitals where there were 5 or more CSDs, a simple random sampling was used to select 4 CSDs. In total 70 CSDs were recruited into the study.

A structured, telephonic interview questionnaire was chosen because of the quick response factor and the accessibility of doctors by cell phone. The questionnaire was divided into 5 parts: (*i*) the hospital environment; (*ii*) doctors' workload; (*iii*) equipment, the health facility and service conditions; (*iv*) competency, work conditions and supervision and support received from senior staff; and (*v*) development of clinical skills and competency through working in a particular hospital, and treatment received. A 4-point Likert scale was used (very satisfied, satisfied, dissatisfied, very dissatisfied). The principal investigator (MSN) interviewed all CSDs from 18 October to 20 November 2003. The response rate was 70%. The results were captured on Excel and analysed using the EpiInfo 6 programme.

Results

Demography

In the study sample of 70 CSDs, 75% were in the 25 - 30-year age group. The gender distribution was 52.9% male and 48.1%

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female. Twenty-one per cent (N = 15) of the respondents were provincial bursary holders. CSDs were evenly distributed across all 6 districts of LP and were accommodated in the 30 district hospitals and 6 regional hospitals including the Polokwane-Mankweng (P-M) complex. Seventy per cent of CSDs worked in district hospitals and 30% in regional hospitals (Table I).

In terms of placement, nearly 80% of the respondents reported working in hospitals that were not their first choice. Fourteen per cent were accommodated outside the hospital because of a lack of accommodation facilities and 7% arranged their own private accommodation, citing poor facilities and sharing of houses as contributing factors. More than 70% indicated that they were satisfied with their accommodation. All reported that their hospitals were in rural areas and that they served rural communities.

The majority (97.1%) of CSDs reported working more than the standard 40-hour week. Those who worked considerably beyond standard hours cited the following factors as reasons for doing so: (*i*) shortage of doctors (68.6%); (*ii*) feeling for the patients (85.7%); (*iii*) greater opportunity to learn (12.9%); and (*iv*) need for a good reference from a supervisor (50%) (Table II).

Table I. Demographic characteristics of CSDs in LP (N (%))

Characteristic	N	%
Gender of the CSDs		
Male	37	52.9
Female	33	47.1
Age of CSDs (years)		
25 - 30	54	77.1
31 - 35	8	11.4
36 - 40	5	7.2
41 +	3	4.3
Number of CSDs per district		
Sekhukhune	9	12.9
Mopani	14	20.0
Capricorn	10	14.3
Waterberg	15	21.4
Vhembe	16	22.9
Bothlabelo	6	8.5
Distribution of CSDs per level of hospital		
District	42	60.0
Big district	7	10.0
Regional	19	27.2
P-M complex	2	2.8

Table II. Reasons for and levels of overtime worked

	Level of overtime worked (N (%))			
Reason	None	Some	Quite a bit	Extensive
Need good reference from supervisor	5 (7.1)	26 (37.2)	4 (5.7)	35 (50.0)
Feeling for the patients	2 (2.9)	2 (2.9)	6 (8.6)	60 (85.7)
Greater opportunity to learn	5 (7.1)	32 (45.7)	24 (34.3)	9 (12.9)
Staff shortages	2 (2.9)	13 (18.6)	7 (10.0)	48 (68.6)

With regard to workload and rest during night duty, 67.1% reported having an average of fewer than 2 hours of uninterrupted sleep per night. There was no significant difference between male and female CSDs with regard to uninterrupted hours of sleep. All CSDs in Bothlabelo district experienced fewer than 2 hours of sleep, while 37% of CSDs working in Vhembe district had 6 or more hours of uninterrupted sleep.

CSDs working in district hospitals reported the highest number of calls during night duty. Units that were busy at night were trauma sections (52.8%), followed by maternity sections (28.6%) and various acute admissions. When asked about cases that they treated, all respondents indicated that the number of acute admissions seemed to be a key factor in district hospitals. Data from the work questionnaire for all subjects showed that the number of acute admissions was significantly negatively correlated with lack of equipment and referral problems.

Sixty-seven subjects (95.7%) reported that equipment was often not working at some stage of their night duty. Referral (22.9%) to other institutions was reported as the general problem of all hospitals, with the exception of those working at the regional hospital in Capricorn. Of great concern was that more than 58% of subjects reported experiencing the death of a patient related to system failure, and nearly two-thirds of the CSDs reported possible medical errors associated with fatigue.

With regard to supervision, training and support from senior doctors, 37% reported that supervisors conducted separate teaching sessions through continuous professional development meetings in their hospitals, 59% said that cases were discussed with supervisors during working ward rounds, 33% reported that their supervisors felt threatened by CSDs' knowledge, and 7% did not discuss their cases.

A simple scale was used to measure the amount of feedback that CSDs reportedly received from senior doctors on their inpatient work. Fig. 1 summarises the subjects' responses. A total of 35.7% reported not getting any feedback from senior doctors; those who received feedback reported it to be scanty and not helpful (32.9%). More than 31% of the respondents reported that the feedback was both adequate and helpful.

When subjects were asked for general comments on what might deter them from working in public hospitals, long hours and staff shortages emerged as the most important factors.

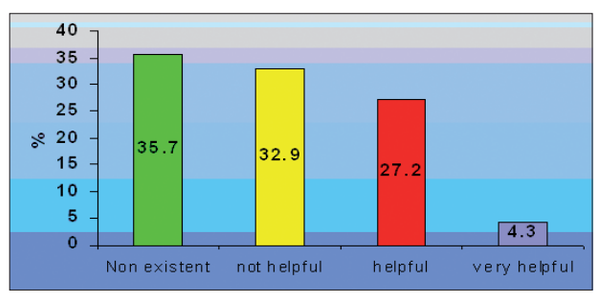

Fig. 1. Type and percentage of feedback received by CSDs.

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A small proportion (10%) of the CSDs without provincial bursary obligations indicated their intention to stay on in public hospitals in LP. Their comments show that the problems described are unlikely to diminish unless addressed: 'We are very short staffed, there is no medicine to give to patients, and we work late on most days. Therefore it is not an attractive option.'

Discussion

The response rate of almost 70% in this survey was representative of CSDs in terms of gender, districts, and hospitals in LP.

Difficulty placing CSDs at hospitals of their choice was apparent. Many doctors prefer to work and live around big cities and towns where there are good services and infrastructure. A number of hospitals in the rural areas were experiencing severe shortage of doctors and other health professionals. A number of countries, in both the developing and developed world have experienced problems recruiting and retaining doctors and other professionals in areas of greatest need.[8] In South Africa, the majority of doctors are concentrated around big cities and medical schools, leaving the former 'homelands' with a severe shortage of health providers.[7,9]

Negative reports of patients dying in public hospitals and of poor working facilities in rural areas have made CSDs increasingly reluctant to choose these posts. The RuDASA study[2] found that CSDs were not happy with the accommodation facilities. The results of the present study confirm what other studies have previously reported.[7,10] Recent developments (Departmental Circular No. 136 of 2004, LP) in the Department of Health are encouraging, viz. the introduction of a rural allowance and a scarce skills allowance for doctors and dentists.[11] The Department of Health and Welfare in LP recommended that the entry notch for the different salary levels of all doctors and dentists should be from notch 10 upwards. Implementation of the above measures will help in the recruitment and retention of health professionals.

However, a flexible approach to placement of doctors in hospitals of their choice, and provision of safe accommodation still need to be addressed.

Numerous studies show that even under pressure health professionals continue to work in the best interests of their patients.[7-9,12] CSDs acknowledged that they made medical errors as a result of excessive workload and constant pressure to satisfy patient needs. The results in the current study confirm the findings of other studies, viz. that doctors report committing medical errors as a result of work-related stress.[13]

Their confidence in performing clinical tasks was slightly higher than reported in our study. Liu and Tamaka[14] also suggested that doctors who were stressed, overworked and who had insufficient sleep were prone to develop non-fatal myocardial infarction.

The main challenges identified by CSDs with regard to skills development and confidence were inadequate support and supervision by senior doctors, lack of medical equipment, increased workload and poor feedback. Inadequate support and supervision influenced the CSDs' perceived competence and ability to cope in the wards. Results from this study confirm the findings of a study in the UK.[15] Most doctors who said that they underperformed when treating patients felt that this was linked to poor training and lack of supervision.[15] Similarly, the more specific the teaching associated with a ward round, the more effective the learning was perceived to be, and the more the doctor was able to cope with clinical duties.[15]

A limitation of the study was that the researcher did not assess the performance of CSDs. Bias in the form of self-reporting by respondents and recalling of events is usually the main limitation of this type of study.

Conclusion

The study showed that CSDs are often placed in public hospitals not of their first choice. The majority of CSDs worked more than the normal 40 hours per week and slept less than 2 hours per night because of patient load and staff shortages. Although CSDs received limited and/or poor clinical support from supervisors, were over-stressed and not remunerated for working beyond normal working hours, they remained committed to providing the best professional service to their patients under the prevailing circumstances.

The implementation of the recruitment and retention schemes for identified health professionals will go a long way towards addressing the shortage of health professionals in public hospitals.

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