

A hospital-management training programme in South Africa

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Background. The South African (SA) National Department of Health (NDoH) has identified the training of managers of public hospitals as key to improving efficiency in health-service delivery. As a part of that process, the NDoH, together with the universities of KwaZulu-Natal (UKZN) and the Witwatersrand (Wits) and the government of France, has launched a Master's programme to train hospital managers. Its development began in 2003, and was initially based on the French hospital-management training programme. The aim was to make it a prerequisite for appointment as a senior hospital manager in the near future, although this was not achieved. The programme also aims to realise the NDoH's policies of revitalisation and decentralisation of hospital management, by empowering managers and equipping them to effectively address the challenges of providing equitable and efficient health-service delivery. The aims of the Master's course in hospital management are five-fold: (i) to develop uniform standards for the training of hospital managers; (ii) to develop leadership and managerial capacity among prospective and current hospital managers; (iii) to apply these competencies to critical research, intervention, evaluation and policy-development efforts in hospital management; (iv) to train adequate numbers of hospital managers for SA; and (v) to develop hospital management as a recognised profession among health and other professionals in SA. The programme was launched in 2006, and 150 students (chief executive officers (CEOs) of public hospitals) were enrolled during the 4-year duration of the programme. They were selected by the Training Unit for Hospital Managers of South Africa (the collaboration unit created by the abovementioned partners) based on selection criteria that it developed. An evaluation was carried out to assess the programme.

Objectives. To do a baseline audit of the current skills and competency levels of students enrolled in the Master of Public Health (MPH) in hospital management programme, and to assess the functioning of the hospitals they have been managing.

Methods. A cross-sectional study design was used. The study participants were the specific cohort of students ($n=47$) from public hospitals in SA who were enrolled in 2006 and 2007 at Wits in the MPH in hospital management programme. A structured questionnaire was distributed to the participants, and 41 out of the 47 students (30 first-year and 11 second-year students) completed it.

Results. The majority of the participants in the programme had been working in the public-health sector for a long time, and had acquired substantial practical experience. All of them had professional qualifications, as well as some management training or qualifications. Most of them had attended numerous management-related short courses. They suggested that the programme should be offered in such a way as to reinforce and consolidate their existing knowledge. They proposed that the NDoH should explore the possibility of recognition of prior learning. The participants supported the idea of continuing the current structure of the programme, and recommended the incorporation of soft skills such as the development of leadership, emotional intelligence and conflict-management skills. The participants preferred classroom teaching, case studies and experiential learning, and least supported the distance-based teaching methodology.

Conclusion. The findings from this study assisted the two universities and the NDoH to refine the programme currently offered, and confirmed that its strategy to professionalise hospital-management training was on the right track.

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Management training is fundamental to developing human resources for health. A lack of managerial capacity has been blamed for most health systems' inefficiencies.^[1] Healthcare systems need strong leadership if they are to be sustainable and responsive to the health needs of the future.^[2] According to the World Health Organization,^[1] effective leadership and management in the health services are key to using the available resources effectively and achieving measurable results. Leadership and management

skills have a positive impact on strengthening health systems,^[3] and therefore these systems need strong leadership if they are to be sustainable and responsive to the health needs of the future.^[2] Good leadership and management facilitate change within health organisations, and achieve better health services through the efficient and responsive deployment of people and other resources. However, health management has proved a deceptively difficult and imprecise domain to grasp and define,^[4] and the development

of the adequate management and leadership skills that are needed in order to strengthen health systems has been given insufficient attention.^[3]

Capacity building of the managers working in the SA public-health sector remains one of the priorities of the National Department of Health (NDoH). It was included in their Ten Point Plan,^[5] as well as the Human Resources for Health Plan^[6] and the Policy on the Management of Hospitals.^[7]

A number of universities in SA offer Master's and doctoral education that seeks to produce skilled public-health practitioners, appropriately trained for the SA and African context. The programmes are all concerned with developing the capacity to address the major health challenges facing the public-healthcare systems of developing countries, particularly in Africa. Designed to meet the health-services management and research capacity building needs of Africa, each of these programmes aims to understand, mitigate the effects of, or challenge inequity within its disciplinary framework.

Prior to 1994, public-health training in SA focused exclusively on the specialist training of doctors. With the transformation to democracy, it became evident that established public-health-specialist training was not meeting the need to build the human-resource capacity to manage the hospitals that consume a significant amount of resources within both the public and private health sectors. As a result, the NDoH has identified the training of the managers of public hospitals as the key to improving efficiency in health-service delivery. As part of that process, the NDoH, together with the Universities of KwaZulu-Natal (UKZN) and the Witwatersrand (Wits) and the government of France, has launched a Master's programme to train hospital managers, and aims to make it a prerequisite for the appointment of senior hospital managers in the near future. The aims of the Master of Public Health (MPH) in hospital management are five-fold: (i) to develop uniform standards for the training of hospital managers; (ii) to develop leadership and managerial capacity among prospective and current hospital managers; (iii) to apply these competencies to critical research, intervention, evaluation and policy-development efforts in hospital management; (iv) to train adequate numbers of hospital managers for SA; and (v) to develop hospital management as a recognised profession among health and other professionals in SA. It was proposed that the programme would adopt an interdisciplinary

case-study and problem-orientated approach, with an emphasis on human resources, finance, operations, strategy, biostatistics and computing, project management, communication skills and operational-research methods, as applied to developing-country settings. Students were expected to complete a required set of core modules that cover these disciplines, and a range of elective modules that would build flexibility into the programme. A hospital-based research project was intended to consolidate students' competencies, skills and knowledge. Students were expected to conduct projects at selected hospitals identified in consultation with various stakeholders and role players. A workshop was organised by the NDoH in Durban in November 2005 to solicit opinion from various stakeholders and to finalise the content of the curriculum.

The two universities (UKZN and Wits) that launched the programme were chosen in 2005. A memorandum of agreement (MOA)^[8] was signed between the NDoH and the universities to deliver the programme with technical and financial support from the French government, within the framework of an international agreement signed between the governments of SA and France, under the auspices of the European Union. The purpose of the programme, as highlighted in the MOA, was to develop specific courses and teaching material directly targeting the needs of SA public-service hospital managers. It aimed to accompany the national policies of revitalisation and decentralisation of hospital management, by empowering managers and equipping them to effectively address the challenges of improving service delivery. A phased approach was put forward to achieve the vision of this programme (Table 1).

The programme was launched in 2006, and 150 students (chief executive officers (CEOs) of public hospitals) were enrolled during the 4-year duration of the programme. They were selected by the Training Unit for Hospital Managers of South Africa (the collaboration unit created by the abovementioned partners) based on selection criteria that it developed. An evaluation was carried out to assess the programme. Any programme should be subject to monitoring and evaluation to assess its impact and whether it has a beneficial effect and is adding any value to the health sector. It was specifically important to determine the impact of this programme on both the trainees and the hospitals where they work. However, it would not be possible to ascertain that any hospital-management improvements that might be experienced in the future are the

Table 1. Phased approach for the hospital-management programme

Phase 1	<ul style="list-style-type: none"> • Development of the coursework components for an internationally recognised postgraduate programme in hospital management at Wits at certificate, diploma and degree level • Introduction of at least two courses in the above programme • Establishment of links between the university and selected public hospitals suitable for students' hospital-based attachments • Full engagement of the French Department of Health as a partner in securing necessary expertise and resources, and in monitoring progress towards the achievement of goals
Phase 2	<ul style="list-style-type: none"> • Extension of links to include public hospitals throughout SA as potential sites for students' field-based attachments • Establishment of all the coursework and practical hospital-based components for the programme
Phase 3	<ul style="list-style-type: none"> • Development of distance-based modules of the course • Development of an African hospital managers' workbook • Seeking a link to other leading academic institutions in Africa with similar programmes, to develop regional nodes of excellence and a workable inter-regional academic framework



result of this intervention without comparing it with a baseline. In view of this, a baseline audit was done to assess the skills and competency levels of the students enrolled in the MPH in hospital-management training at UKZN and Wits.

Methods

The study was conducted on the cohort of students from public hospitals in SA who were enrolled in 2006 and 2007 at the two universities in the Master of Public Health (MPH) in hospital management programme. Sixteen students were enrolled in 2006 and 36 in 2007 at Wits. At the time of this survey, there were 14 students in their second year (the 2006 cohort), and 33 students in the first year (the 2007 cohort).

The scope of the study included an audit of the skills and competency levels of the cohort (trainees), and a baseline evaluation of the functioning of their hospitals. This baseline report would be used at the end of the project to evaluate the impact of the training programme on the improvement of hospital management.

A longitudinal cohort study design was used. A cohort was chosen and observed for a period of 3 years. A study of the skills and competencies of the cohort prior to completing the programme was therefore undertaken, which at the end of study period would serve as a baseline to measure the success of the intervention. No intervention was to be made by the researchers. However, recommendations were made to the NDoH based on the findings of the study. The audit was initially expected to include all 47 students enrolled in 2006/2007. An information sheet was developed to explain to the participants the purpose of the project. A self-administered questionnaire was then administered to collect information from those students who were willing to participate. The data were analysed using the NCSS statistical software package (NCSS, USA).

Results

The results obtained from the self-administered questionnaire (on the competency baseline audit of trainees) are described below.

Composition of the study group

A total of 41 students participated (30 first-year and 11 second-year students) out of the total of 47, which is a response rate of 87% (90% among first-year and 78% among second-year students).

General characteristics of the subjects

The general characteristics of the subjects are described below (Table 2). One of the participants reported having a physical disability.

Previous education and training

The participants were asked about their educational background (professional and management training). The results are described in Tables 3, 4 and 5.

The majority (93%) of the participants had professional training in healthcare (Table 3). Six of them did not have an undergraduate degree. Some participants had completed various postgraduate courses (such as in family medicine or emergency care, a diploma in

Table 2. Demographics of the participants (N=41)

	Total, n (%)	First year, n (%)	Second year, n (%)
Number	41 (100)	30 (73)	11 (27)
Age group (years)			
30 - 39	5 (12.5)	4 (13.8)	1 (9.1)
40 - 49	19 (47.5)	13 (44.8)	6 (54.5)
50 - 59	16 (40)	12 (41.4)	
Gender			
Male	20 (48.5)	15 (50)	5 (45.5)
Female	21 (51.5)	15 (50)	6 (54.5)
Ethnicity			
African	34 (85)	25 (86.2)	9 (81.8)
Asian	1 (2.5)	1 (3.5)	1 (9.1)
Coloured	4 (10)	3 (10.3)	-
White	1 (2.5)	-	1 (9.1)

Table 3. Previous professional education and training, n (%)

Medicine	6 (14.6)
Nursing (Master's)	3 (7.3)
Nursing (BCurr Hons)	7 (17.1)
Nursing (BCurr)	13 (31.7)
Nursing (Diploma)	6 (14.6)
Pharmacy (BPharm)	1 (2.4)
Radiography (BTech)	2 (4.9)
Environmental Health (BTech)	1 (2.4)
Other (BA)	1 (2.4)
Other (Diploma education)	1 (2.4)

tropical medicine and health and a certificate in TB/HIV care).

Thirty-one participants (75.6%) reported that they had some management qualifications (Table 4). Some (7) had more than one qualification. Three had completed a postgraduate degree and one had started but had not completed a Master's degree in public administration.

The majority (85%) of the participants reported that they had attended some short courses (Table 5). Fifteen reported that they had attended many such short courses.

The above information shows that the majority of the participants had attended various levels of programmes, from a Master's degree in management to various short courses. It is interesting to note that they still wanted to attend the MPH programme, which implies that they might not be satisfied with the above programmes, which had failed to give them the necessary skills for their jobs. Therefore it is a challenge to this Master's programme to offer those skills.

Another interesting fact is the number of short courses attended by these participants. A number of short courses are offered by the private sector, which has substantial cost implications. Therefore, it is a challenge to the NDoH and the universities as to how they address the hunger for knowledge and skills of the existing health managers to equip them to become good and effective hospital managers.



Health facilities

The participants came from six provinces in SA (Table 6). The majority of them are from Level-1 (61%) and Level-2 (24.4%) health facilities.

Table 4. Previous management education and training, participants' qualifications, *n* (%)

Qualification	
Master's degree	
Public management	1 (2.4)
Public administration	1 (2.4)
Business administration	1 (2.4)
Postgraduate diploma	
Management	1 (2.4)
Human-resource management	1 (2.4)
Graduate degree	
BCurr (Management)	1 (2.4)
Graduate diploma	
Health management	2 (4.8)
Health-service management	4 (9.8)
Human-resource management	-
Hospital management	2 (4.9)
Nursing management	1 (2.4)
Health and social welfare	1 (2.4)
Public management	6 (14.6)
Business management	1 (2.4)
Business administration	1 (2.4)
Certificate	
Hospital management	4 (9.8)
Health management	6 (14.6)
Integrated health and wellness programme management	31 (75.6)
Public management	1 (2.4)
Management	1 (2.4)

Table 5. Previous management education and training, short courses, *N*

Courses	
Finance (including Public Finance Management Act and asset management)	8
Human resources (including change management, wellness, labour relations, dispute resolution, motivation, performance management and development system, and job evaluation)	10
Project management	7
Mentoring and coaching	2
Gauteng Provincial CEO's Training Programme	2
District health management	1
Occupational health	2
GMDP	1
Public service management	1
Batho Pele	1
TQM	2

CEO = chief executive officer; GMDP = Government Management Development Programme; TQM = total quality management

Work experience

Most of the participants were CEOs (85.4%) (Table 7). The majority of them had long experience in the health sector, and the average length of stay in their current post was 4.4 years. This indicates that this cohort of hospital managers is committed to the public health sector.

Working responsibilities

Thirty-three of the participants perform only management responsibilities, while others also perform clinical and other responsibilities. The majority of them work after hours.

Necessary skills

Most of the participants identified the following skills as necessary for their work:

- technical skills
- soft skills (leadership, communication, time management)
- coaching and mentoring
- computer skills.

Some of them had acquired these skills through on-the-job training, while others acquired them through short courses provided by private institutions.

Among the participants, 8 had experience of mentoring both as mentor and mentee, 15 as a mentor only and 5 as a mentee only. All the respondents suggested that mentorship should be an integral part of this programme.

Table 6. Health facilities managed by students (*N*=41)

	Total, <i>n</i> (%)	First year, <i>n</i> (%)	Second year, <i>n</i> (%)
Province			
Free State	6 (14.6)	6 (20.7)	-
Gauteng	11 (26.8)	9 (31)	2 (18.2)
Limpopo	12 (29.3)	7 (24.1)	5 (45.5)
Northern Cape	4 (9.8)	3 (10.3)	-
North West	7 (17.1)	4 (13.8)	3 (27.3)
Western Cape	1 (2.4)	-	1 (9.1)
Health facilities			
Level 3	2 (4.9)	1 (3.4)	1 (9.1)
Level 2	10 (24.4)	9 (31.0)	1 (9.1)
Level 1	25 (61)	16 (55.2)	9 (81.8)
CHC/ Clinic	-	-	-
Specialised hospital	3 (9.8)	3 (10.3)	-

Table 7. Work experience (*N*=41)

Position, <i>n</i> (%)	Total	First year	Second year
Chief executive officer	35 (85.4)	25 (83.3)	10 (90.9)
Clinical director	0	-	-
Medical superintendent	2 (4.9)	1 (3.3)	1 (9.1)
Nursing service manager	3 (7.3)	3 (10)	-
Hospital manager	1 (2.4)	1 (3.3)	-
Years of experience, mean (SD)	4.4 (3.4)	4 (2.9)	5.6 (4.3)



Current training programme

The participants were asked to rate various teaching methodologies used in this programme (Table 8).

The analysis showed that most of the participants rated classroom lectures, case studies, experiential learning and group work highly. The two universities should seriously consider these recommendations from the participants.

Contents of the existing programme

The participants were asked to comment on the suitability of the modules recommended at the Durban stakeholders' workshop organised by the NDoH in Durban in 2005.

Most participants agreed that all the modules listed in Table 9 are important and should continue to be covered in this programme. The participants suggested that more time should be allocated to the financial management, human-resource management, operations management and strategic management modules. They believed that they would gain a better understanding of hospital management from completing these modules. They also hoped to utilise the skills and knowledge acquired through this programme in managing their own hospitals.

Mentorship

The following areas were covered during the programme: Patient Information, Financial Information, Procurement Information, HR Information, Clinical Management, Nursing Management and Hospital Management. The following areas of need were

identified as a result of the project: (i) the integration of various areas of the hospital; (ii) good co-ordination between clinical and management divisions; (iii) a multidisciplinary team approach; (iv) a health-information system; (v) evidence-based practice to improve efficiency; and (vi) the application of theory to practice. The main limitations of the project were a lack of similar projects that had been undertaken in a hospital setting, meaning that the project team had to use its own ideas for the development of the project, and the unavailability of a best-practice model within SA. As a result, it was decided to use mentors from another country.

Opinions about future training

Thirty-three of the participants (81%) believed that there should be a separate programme for a Master's in hospital management. Only 3 participants (7%) suggested a generic Master's in public health. Two participants suggested a Master's in business administration specialising in health.

Thirty-six participants (88%) believed that hospital management should be recognised as a professional career track in SA.

In view of the above findings, the researchers recommended to the NDoH that it should consider creating a specialised qualification, a Master's in Hospital Management, and explore the possibility of registering the qualification with a professional body such as the Health Professionals Council of SA.

Discussion

The study highlighted the following important issues:

- The majority of the participants in the programme had been working in the public health sector for a long time, and had acquired substantial practical experience.
- All participants had a professional qualification as well as some management training or qualifications. Most of them had attended numerous short courses. Therefore the MPH in hospital-management programme should be offered in such a way as to reinforce and consolidate their existing knowledge. The NDoH should explore the possibility of recognition of this prior learning.
- The participants supported the idea of continuing the current structure of the programme, and also recommended the incorporation of soft skills into the programme.
- The participants preferred classroom teaching, case studies and experiential learning, and least supported a distant-based teaching methodology.
- The courses selected for the curricula are the same as those covered by the current programme at Wits and UKZN.

Conclusion

The findings from this study assisted the two universities and the NDoH to refine the programme currently offered, and confirmed that its strategy to professionalise hospital-management training was on the right track.

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Conflicts of interest. None.

Table 8. Students' approval ratings of teaching methodologies used

	Mean (SD)
Classroom lecture	4.7 (0.7)
Group work	3.9 (1.1)
Case study	4.1 (0.9)
Distance-based work	3.1 (1.4)
Computer-based work	3.3 (1.4)
Seminar and workshop	3.4 (1.1)
Experiential learning	4.3 (1.0)

5 = most preferable; 4 = preferable; 3 = neutral; 2 = not preferable; 1 = least preferable
SD = standard deviation

Table 9. List of modules

Health measurement (e.g. epidemiology, biostatistics)
Human-resource management
Financial management
Operations management and logistics
Problem-solving and decision-making
Hospital disaster preparedness
Institutional, corporate and hospitals management (corporate governance)
Health policy and legislation
Project management
Strategic planning
Control of diseases
Leadership
Research methodology



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