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### **Abstract**

**Objectives:** This study explored major factors that influenced staff motivation at a district hospital in South Africa following hospital reforms and comparison of these factors across the two main staff categories.

**Design:** This study was a cross-sectional descriptive survey.

Settings and subjects: This study included all medical and nursing staff working at the district hospital.

Outcome measures: A semi-structured questionnaire coded for anonymity was used. It comprised three sections: the introduction, demographic information and a list of factors to which participants responded by indicating their level of agreement or disagreement using the Likert's scale. The questionnaire's reliability was confirmed using Cronbach's coefficient alpha with a value of 0.9.

Results: Of the 179 participants, 122 returned the questionnaires. This equated to a response rate of 68%. The staff expressed more demotivation than motivation. Major factors that played a role were institutional in character, namely poor management and leadership, unfavourable institutional policies and administration practices with regard to staff development, conflictual inter- and intraprofessional relationships, a paucity of equipment and retention and recruitment strategies. The unique motivator was the individual value of the vocational aspect of the profession. Distance travelled to the workplace did not have any association with the identified motivating and demotivating factors.

Conclusion: Staff motivation is crucial in any institution or organisation. Presently, the South African healthcare sector is undergoing transformation in terms of implementation of National Health Insurance. The effectiveness of the healthcare system in achieving its goals will be impacted by the prioritisation of institutional strategies that contribute to staff motivation. Managers' skills in healthcare facilities are critical to the success of the implementation of reforms in South Africa.

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### Introduction

Hospitals and other healthcare facilities do not function and operate in a vacuum. Laws and regulations guide many aspects of clinical healthcare. For example, the scope of activity at each level of health care is determined by national policy. This has a significant impact on staffing and funding at healthcare facilities. A regional hospital can render specialised services and is equipped to do so. At this level, access to support services, such as laboratory and imaging, is the norm. At such an institution, senior medical staff will have a wide scope of facilities at their disposal in clinical practice and with which to develop skills and abilities. On the other hand, a district hospital or community healthcare centre or clinic might not have a budget for specialised services. Senior medical staff members who work at such institutions might experience constraints to clinical practice and further personal growth and development.

The change in the status of healthcare facilities, as was the case for many hospitals during hospital restructuring in South Africa, can affect budget, equipment, the work environment and staff motivation indirectly. Experience has repeatedly proven that change in any part of a given system will trigger a shift in balance. This shift or its consequences can be positive or negative. All aspects of the system, including the healthcare personnel, need to adjust to the change in order to re-establish equilibrium. The human factor in this process of adaptation, or lack thereof, is critical. Maintaining or attaining a set standard within the healthcare system revolves around a key factor: motivated healthcare personnel.

Many studies have shown that there is a correlation between quality of care, healthcare outcomes and the availability of motivated healthcare personnel.<sup>1,2</sup> Low motivation burdens



the healthcare system further by encouraging the migration of healthcare workers (push factors) from rural areas to the city, and then out of the country.3,4 The success, failure or obstacles that relate to implementation of policies demand that managers take adequate consideration of this factor. Therefore, it is imperative that human resource management strategies are designed to motivate healthcare workers from, and including, the heads of healthcare facilities, right down to auxiliary staff.3,5

Why did hospital restructuring take place in South Africa? In any country, policy and regulations change from time to time. The triggers for such changes can be political, economic, social or technical. Most African countries embraced primary health care and decentralisation immediately after independence. In South Africa, the reforms and transformation processes coincided with the advent of democracy in 1994. There were political and social imperatives for the healthcare sector to effect changes in the way in which the healthcare system was structured and the way in which it functioned. This included rationalising the distribution of healthcare facilities in the country to ensure that previously disadvantaged areas had adequate healthcare services coverage. Where there were duplications, some facilities were downgraded. Where there were no regional hospitals, existing first-level hospitals were upgraded to regional status. The purpose of this research was to determine the prevalence and nature of factors that affected staff motivation at a restructured district hospital in the West Rand, Gauteng province. Identifying these factors might guide a review of human resource management strategies that aim to improve the motivation of healthcare workers in this hospital and others in South Africa.

# Method

This study was a cross-sectional survey of the frequency and nature of factors that affected healthcare workers' motivation at a district hospital in the West Rand, Gauteng province. It was conducted between February and March 2008. The primary objective was to rank the frequency of major reported factors that motivated and demotivated staff at the study site and to compare the results obtained between the various staff categories. The study population included all nursing and medical staff who worked at the hospital under study in 2008. One hundred and seventyseven nurses and doctors were employed at the study site, three of whom were nursing managers, 49 auxiliary nurses, 62 professional nurses, 45 enrolled nurses, 15 full-time doctors and three session doctors. Seven auxiliary nurses and 15 enrolled nurses were admitted to a nursing college in early 2008. This reduced the total number of nursing and medical staff to 155, all of whom were included in the study. Nursing and medical students were excluded from this study.

# **Data collection instrument**

semi-structured questionnaire was used. questionnaire was divided into three coded sections to ensure anonymity during data collection.

#### These were:

- Respondents' identification demographic and characteristics.
- A tabulated list of factors, validated in contexts similar to that of the study site, 3,6,7 were presented as statements to which the respondent's level of agreement or disagreement was measured using a five-point Likert
- With regard to motivating and demotivating factors, participants were instructed to indicate five other factors that did not appear on the table. Participants were also requested to provide factors that would improve their motivation.

The questionnaire was piloted on 20 medical and nursing staff members, namely four doctors and 16 nurses. The collected information was used to rephrase ambiguous or inappropriate statements and introduce other statements that were not previously considered. The adequacy of the questionnaire was further tested by measuring its Cronbach's coefficient alpha with a value of 0.9. The correlation between age, sex, profession, staff category, duration of employment, work experience and distance lived from the workplace was calculated.

#### **Data collection**

The researcher personally handed out the questionnaires, participants' information leaflets and consent forms to participants during working hours in the day, and in the early evening for those who were on night duty. The researcher returned to collect the completed questionnaires on the agreed days with each participant. The data were collated on Microsoft Excel® and imported into Stata® 10 for analysis. Frequency and proportions were used to describe the level of agreement within the different staff categories on motivating and demotivating factors. The scores were expressed in percentages and calculated by dividing the number of positive responses to the particular question under consideration by the total number of staff in the category who answered the question, and then multiplying by 100.

The Kruskal-Wallis test was used to compare the scores between the staff categories. Analysis of variance was used for the continuous scores, in order to simultaneously evaluate the factors that affected the scores pertaining to the motivating and demotivating statements. The considered demographic factors were profession, sex, duration of employment, distance to work and type of contract. The differences between the responses of nurses and doctors were deemed to be significant if p-values were < 0.05. The staff categories were reduced to two: doctors and nurses for this statistical analysis because of the small number of managers. Approval to conduct this study was obtained from the hospital, the ethics committee of the University of Pretoria (approval number 129/2007) and the Gauteng provincial healthcare department.



Table I: Distribution of participants according to staff categories

| Staff category                    | Number of staff<br>(%) | Mean age (years) | Duration of<br>employment<br>(years) | Mean experience<br>(years) | Mean distance<br>travelled (km) |  |  |
|-----------------------------------|------------------------|------------------|--------------------------------------|----------------------------|---------------------------------|--|--|
| Medical staff                     |                        |                  |                                      |                            |                                 |  |  |
| Chief medical officer             | 1 (0.8)                | 41               | 0.3                                  | -                          | 2                               |  |  |
| Principal medical officer         | 4 (3.3)                | 43.8             | 5.5                                  | 18.5                       | 2.3                             |  |  |
| Senior medical officer            | 5 (4.1)                | 31.6             | 2.0                                  | 5.8                        | 3                               |  |  |
| Junior medical officer            | 2 (1.6)                | 32.5             | 2.0                                  | 7.5                        | 3                               |  |  |
| Community service doctor          | 1 (0.8)                | 32               | 0.3                                  | 0.9                        | 3                               |  |  |
| Intern doctor                     | 2 (1.6)                | 26.5             | 0.1                                  | 1.1                        | 2.5                             |  |  |
| Medical officer                   | 2 (1.6)                | -                | -                                    | -                          | -                               |  |  |
| Nursing staff                     |                        |                  |                                      |                            |                                 |  |  |
| Nursing managers                  | 4 (3.3)                | 51               | 17.3                                 | 29.5                       | 2                               |  |  |
| Chief professional nurse          | 15 (12.3)              | 14 (48.9)        | 11.7                                 | 14 (23.4)                  | 2.7                             |  |  |
| Professional nurse                | 32 (26.2)              | 30 (38.7)        | 30 (4.4)                             | 30 (12.6)                  | 2.4                             |  |  |
| Registered midwife                | 7 (5.7)                | 37.6             | 5 (5.5)                              | 13.7                       | 5(3)                            |  |  |
| Auxiliary nurse (nurse assistant) | 24 (19.7)              | 36.2             | 15(3.9)                              | 18 (10.3)                  | 22 (2.5)                        |  |  |
| Enrolled nurse (staff nurse)      | 17 (13.9)              | 14 (39.4)        | 16 (7)                               | 16 (14.6)                  | 16 (2.6)                        |  |  |
| Primary healthcare nurse          | 1 (0.8)                | -                | -                                    | -                          | -                               |  |  |
| Unidentified category             | 5 (4.1)                | -                | -                                    | -                          | -                               |  |  |
| Total                             | 122 (100)              |                  |                                      |                            |                                 |  |  |

Table II: Degree of association between motivating and demotivating factors and distance travelled to the workplace

| Agreement level                     | Travelling distance to work |            |           |           |                |  |
|-------------------------------------|-----------------------------|------------|-----------|-----------|----------------|--|
| Agreement level                     |                             | < 1 km     | 1-5 km    | > 5 km    | p-value        |  |
| With motivating factor statements   | Yes, n (%)                  | 4 (28.6)   | 18 (62.1) | 30 (41.1) | n volue 0.07   |  |
|                                     | No, n (%)                   | 10 (71.4)  | 11 (37.9) | 43 (71)   | p-value = 0.07 |  |
| With demotivating factor statements | Yes, n (%)                  | 10 (71.43) | 14 (50)   | 42 (60)   | n value 0.40   |  |
|                                     | No, n (%)                   | 4 (28.6)   | 14 (50)   | 28 (40)   | p-value = 0.40 |  |

### **Results**

Atotal of 199 questionnaires, information leaflets and consent forms were issued to 179 staff at the hospital, including the 20 staff who participated in the pilot study. Twenty questionnaires were re-issued to the same participants who had forgotten the form at home on the day of collection. A total of 122 completed questionnaires and consent forms were returned. This equated to a 68% response rate. More than half (51.3%) of the respondents' ages were 36-55 years. The majority (72.1%) were female. The mean age was 40 years. Male respondents were younger, with a mean age of 37 years. All staff categories were represented, but in lesser proportions for the specialised nurses and medical staff. There were less doctors [17 (13.9%) with a mean age of 36], than nurses, [105 (86.1%) with the mean age of 40]. The categories of the medical staff ranged from chief medical officer to intern doctor. The categories of the nursing staff ranged from nursing managers to the enrolled nurse. The majority of participants 102 (83.6%) were employed fulltime. Only 20 (16.4%) had part-time contracts.

Table I shows the distribution of participants according to staff categories.

The participants' duration of employment at the district hospital ranged from 0.25-39 years. The maximum mean work experience of the medical staff was 18.5 years, and 29.5 years for the nursing staff. There were more female nurses than males. Some participants did not indicate the distance travelled from home to the workplace. However, 74 participants (60.7%) lived more than 5 km from their place of work; 29 (23.8%) lived within 1-5 km, and 14 (11.5%) lived less than one kilometre away.

Table II shows a degree of association between motivating and demotivating factors and distance travelled to the workplace. The observed differences were not significant.

# **Motivating factors**

Generally, participants scored the highest levels of agreement with regard to a few motivating factors of an intrinsic nature. These included approaching work primarily as a vocation, being driven by a professional conscience in the performance of one's duty, love for work, professional



Table III: Comparison of perception of motivating factors among the staff categories, expressed as a percentage

| Agreement levels with motivating factors  | All | Managers | Doctors | Nurses | p-value |
|---|-----|----------|---------|--------|---------|
| I consider my work to be a vocation primarily   | 70  | 100      | 90      | 66     | 0.1     |
| I carry out my work with a professional conscience  | 96  | 100      | 100     | 97     | 0.5     |
| I love my work and it motivates me to give the best that I can  | 93  | 100      | 86      | 94     | 0.3     |
| I derive professional satisfaction from my present job  | 80  | 80       | 76      | 81     | 0.9     |
| I am conscious that my work contributes to healing patients   | 98  | 100      | 100     | 98     | 0.6     |
| At my place of work, we are concerned about each other, and help and support each other beyond the work environment too | 51  | 25       | 27      | 57     | 0.1     |
| The nurses and doctors respect each other and relate well to one other  | 58  | 40       | 50      | 60     | 0.8     |
| The nurses and doctors work as a team at my workplace   | 58  | 40       | 64      | 58     | 0.5     |
| The staff members are responsible. I am encouraged to be working with responsible staff members                         | 68  | 0        | 44      | 74     | 0.1     |
| The supervisors acknowledge our good work and are supportive  | 41  | 50       | 13      | 44     | 0.2     |
| I feel a lot of appreciation and support from colleagues  | 71  | 50       | 67      | 73     | 0.9     |
| People respect me and appreciate my work  | 79  | 75       | 71      | 80     | 0.6     |
| It is motivating to know and experience that the community appreciates all that we do                                   | 71  | 50       | 67      | 72     | 1.0     |
| The hospital has adequate equipment to maintain standard care   | 23  | 40       | 0       | 26     | 0.1     |
| The staff are continuously trained  | 45  | 80       | 13      | 46     | 0.2     |
| The pay package is attractive   | 24  | 75       | 0       | 25     | 0.1     |
| There is regular staff promotion which encourages hard work   | 12  | 20       | 0       | 14     | 0.6     |
| This is a stable job and income   | 58  | 80       | 60      | 56     | 0.7     |
| Communication among managers is satisfactory  | 38  | 40       | 13      | 42     | 0.3     |
| Communication between managers and staff is satisfactory  | 41  | 50       | 11      | 45     | 0.2     |

satisfaction and contribution to healing patients. There were high agreement levels with regard to the motivating impact of respect (up to 59.7% agreement) and appreciation (up to 73.4% agreement) from colleagues and the community (up to 72.3% agreement).

To a large extent, doctors and nurses disagreed with the statement that factors that related to the current status of their working conditions, such as availability of equipment, communication and relationships, were motivating. The lowest level of agreement about these factors (only 11%) was among doctors. They also disagreed in general that the pay package was a motivating factor, unlike managers who registered 75% agreement. There was no agreement at all among doctors, and only 25% agreement among nurses, on whether the salary package was a motivating factor. However, job and income security attracted agreement scores higher than 50% across the staff categories. There was a contrast between the high scores of managers (80% agreement) and the lower scores of clinicians [doctors and nurses (46% or less agreement)] when rating performance management and training as a motivating factor. All participants reflected a low level of agreement on promotion as a motivating factor (between 0% and 20% agreement). None of the observed differences among the groups of respondents were statistically significant.

Table III shows the comparison of perception of motivating factors among the staff categories, expressed as a percentage.

### **Demotivating factors**

There were high agreement scores on pay and human resource development in relation to demotivating factors. These included a low wage (up to 100% agreement), absence of a career path (up to 100% agreement), absence of training (up to 90% agreement) and recruitment and retention strategies (up to 92% agreement). These scores were highest among doctors. Managers recorded much lower scores. High levels of agreement were recorded among participants on demotivating factors relating to the work environment. These included difficulties with transportation to work (up to 85% agreement), poor communication between clinicians and management (up to 83.3% agreement), a heavy workload (up to 85% agreement), a shortage of staff (up to 100% agreement) and faulty equipment (up to 100% agreement).

There were high levels of agreement on demotivating factors in relation to leadership and managerial support. These included poor management style (up to 100% agreement), lack of team work (up to 100% agreement), not being valued as a person (up to 91% agreement), insufficient appreciation and reward (up to 100% agreement), lack of discipline (up to 100% agreement) and absence of compensation for hard work (up to 100% agreement).

In general, doctors displayed the highest level of agreement on these demotivating factors. The scores for nurses and managers were similar. The observed differences between



Table IV: Comparison of perceptions of demotivating factors across staff categories, expressed as a percentage

| Statement   |      | Percentage agreement with demotivating factors |         |        |         |  |  |
|---|------|--|---------|--------|---------|--|--|
|   | All  | Managers                                       | Doctors | Nurses | p-value |  |  |
| Income and allowance are low  | 80.2 | 33.3   | 100     | 78.9   | 0.07    |  |  |
| Policies promote stagnation in career paths (no promotion)  | 65.2 | 0  | 100     | 61.8   | 0.03    |  |  |
| No ongoing staff training results in lack of professional and personal development  | 72.4 | 40   | 90      | 72.2   | 0.46    |  |  |
| Staff recruitment and retention strategies are inadequate   | 83.3 | 75   | 92.3    | 82.2   | 0.35    |  |  |
| Transportation is difficult and nursing staff, such as theatre nurses who work late hours, are not provided for               | 74.3 | 80   | 85.7    | 72.6   | 0.37    |  |  |
| There is poor communication between nursing and medical staff   | 51.9 | 66.7   | 50      | 51.5   | 0.89    |  |  |
| There is poor communication between staff and management  | 70.8 | 80   | 83.3    | 68.1   | 0.6     |  |  |
| The workload is heavy, without a plan   |      | 80   | 78.6    | 85.3   | 0.64    |  |  |
| The nursing and medical staff is inadequate   | 85.7 | 100  | 100     | 82.4   | 0.11    |  |  |
| The equipment is in a poor condition  | 71.9 | 75   | 78.6    | 70.4   | 0.45    |  |  |
| Broken or faulty equipment is not satisfactorily replaced   | 74.3 | 75   | 100     | 71.3   | 0.03    |  |  |
| The management style is not adequate  | 73.9 | 60   | 100     | 70.3   | 0.13    |  |  |
| There is no culture of team work among the medical and nursing staff  | 66.3 | 60   | 66.7    | 66.7   | 0.69    |  |  |
| There is no team work because staff does not go beyond what is assigned,  | 67.8 | 100  | 84.6    | 62.9   | 0.16    |  |  |
| and will not help colleagues  |      |  |         |        |         |  |  |
| At work, you are not valued as a person, but only according to what you can do  | 73.6 | 60   | 91.7    | 71.6   | 0.33    |  |  |
| The management is not supportive  | 70.5 | 60   | 92.3    | 67.1   | 0.17    |  |  |
| There is insufficient appreciation by management and an insufficient reward strategy in place. Instead, errors are emphasised | 81.3 | 50   | 100     | 80.3   | 0.33    |  |  |
| There is a lack of effective disciplinary measures  | 68.4 | 60   | 100     | 65.1   | 0.16    |  |  |
| Hard-working staff members are made to work even harder, without any form of compensation                                     | 82   | 60   | 100     | 81.1   | 0.41    |  |  |

nurses and doctors were statistically significant in the case of factors relating to policies that created stagnation in career paths, and improperly repaired, broken or faulty equipment.

Table IV shows the comparison of perceptions of demotivating factors across the staff categories, expressed as a percentage.

### **Discussion**

The response rate of 68% was slightly below the 70-80% recommended for surveys. However, the questionnaire had a high scale of reliability (0.9 Cronbach's coefficient alpha). To optimise response rates, questionnaires were re-issued to those participants who forgot or lost their questionnaires. The comparison of differences in means for statistical significance among managers and clinicians was not possible because of the small number of managers. There were only three nursing managers and one doctor, the chief medical officer. The doctor to nurse ratio at this institution was 1:7. The greater percentage of females in the study population that represented the nursing profession reflects the pattern of sex distribution in the labour market for the nursing profession in South Africa. Staff motivation was not influenced by sex, age, profession, type of contract and duration of service.

In general, participants reported that motivating factors were of an individual nature, such as the vocational aspect of their work, their love for their work and the professional satisfaction that was derived from helping to heal patients. These factors lie outside the classic human resource management tools in the public healthcare sector. Kanfer identified them as the "will do" components of internal motivation.3

Respect and appreciation were also reported to have a high impact on motivation. The absence of factors, such as staff appreciation from managers and the community (81.3% of respondents), interpersonal relationships at work or team work (67.8%), staff training (72.4%), salary (80.2%) and the presence of others such as poor equipment (71,9%) and lack of promotion (65.2%), were reported as key demotivating factors.

This supports Hezberg's theory of motivation which suggests that at organisational level, motivators are twopronged. The first are those that are extrinsic to the worker, e.g. company policy and administration, salaries, wages and other financial remuneration, supervision, interpersonal relations, working conditions and job security. The second are those that are intrinsic, e.g. status, opportunity for advancement, responsibility, recognition, challenging and



stimulating work, and a sense of personal achievement and growth in the job. When absent, they play the role of demotivators.89 Unequal opportunities for training and professional progress were identified in this study as demotivating factors. This is in keeping with studies that were carried out in Benin, Kenya and Vietnam.<sup>3,7</sup> Financial resource constraints should not be a limitation, as the study in Kenya showed that this problem could be circumvented by providing short information leaflets at relatively low cost, to update staff on basic guidelines and procedures.3

Respondents in this study suggested that poor leadership and management affected motivation. Overall, management was described as unsupportive (70.5% of respondents), managers made staff feel undervalued (73.6%), they communicated poorly (70.8%) and their management style was inadequate (73.9%). Management did not create a culture of team work (67.8%). Studies elsewhere have identified the importance of nonfinancial incentives to improve staff motivation. These include supervision schemes, recognition schemes, performance management, training and professional development, leadership, participation mechanisms and an intraorganisational communication process.3,10,11

Communication is the basis for teamwork, relationship and unity.<sup>12</sup> This can be achieved through regular meetings among doctors, nurses and nursing managers to discuss activities and problems. Medical staff play a vital leadership role, although not in the formal sense of a management committee. The way in which they work as professionals can inspire the rest of the team and positively influence the functioning of a hospital. 12 Managers should be able to interpret policies in cognisance with what is actually happening and encourage practices that help the attainment of both individual and organisational goals. Mathuer et al<sup>3</sup> have shown that good leadership and supportive management had a high motivation potential and overrode all other adverse conditions at the workplace.

The reported demotivating factors in this study match the description of push factors that were identified elsewhere. Studies in Mali and Vietnam suggested that the implementation of recognition and appreciation strategies was poor.<sup>6,7</sup> Previously, in Vietnam, biannual appraisal awards were conferred in the form of money, certificates or other tokens, but the value of this has decreased over the years.6 Findings from our study suggest that having a stable source of income could provide some sense of security, even though satisfaction was not derived from remuneration. On the other hand, the study that was carried out in Benin and Kenya revealed that the staff highly valued patients' appreciation because it was seen as an indicator of successful professional conduct and the achievement of healthcare workers' goals to cure patients.3 This differs from the study that was conducted in Vietnam in which appreciation from managers and colleagues was the most important motivating factors for healthcare workers.7

### Conclusion

The dynamics of staff motivation are multifaceted in the public healthcare sector. Motivation is a complex phenomenon that operates at an intrinsic and extrinsic level in relation to individuals. The failure of managers to support intrinsic values is demotivating. However, appropriate human resource management practices and approaches can assist in the creation of a culture of teamwork and in ensuring the availability of resources. Managers with the required knowledge and experience should be appointed. They should be willing to communicate and adopt an appropriate leadership style.

Managers should spend time with staff at their workplace ("walk the corridors") to appreciate their difficulties and concerns, particularly in times of change within the healthcare sector. In this study, staff members placed a high value on appreciation from colleagues and the community. As the National Department of Health is embarking on yet another transformation of the healthcare system, healthcare management should implement a well-strategised incentive and reward system in South Africa to improve and sustain motivation among healthcare workers.

## **Declarations**

There is no conflict of interest to declare. No funding was received for this study.

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