



## **A Comparison of Nursing and Non-nursing Supervisory Managers' Competence at an Urban Tertiary Hospital in North Central Nigeria**

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. Author MD designed the study, wrote the protocol, performed the statistical analysis and wrote the first draft of the manuscript. Authors MZG and EIB managed the data collection. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Aims:** Supervisory managers are key to ensuring that hospitals are effective, and they also contribute to employee satisfaction in the workplace. There is inadequate knowledge regarding their competences, skills and skill gaps. The study aimed to determine supervisory managers' self-assessed managerial competence, and compare nursing and non-nursing managers.

**Study Design:** A cross-sectional survey of all consenting supervisory managers.

**Place and Duration of Study:** Bingham University Teaching Hospital Jos, February to March 2016.

**Methodology:** A two-part, self-administered questionnaire was used to obtain data on socio-demographic, work context and supervisor management competence. Data was entered to a data entry form in Statistical Package for Social Sciences (SPSS 21).

**Results:** A total of 48 managers completed the study giving a study response rate of 85.7%. Most of the participants were female (70.8%), with a mean age of 46.7±8.67 (Nurses 53.1±4.26 vs Non-

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nurses 43.1±8.49,  $P<.001$ ) and mostly from the Health Service Provider cadre (64.6%). They had a mean duration of service of 19.9±10.3 years (Nurses 28.1±4.71 vs Non-nurses 15.4±9.72,  $P<.001$ ). Median duration of management experience was 4 years and range of 1-26 years. Overall, 52.1% of the managers assessed themselves as competent (Nurses 58.8% vs Non-nurses 48.4%,  $P=.509$ ).

“Gaining acceptance as Supervisor” and “Counselling a trouble employee” were the domains with the highest proportion (81.25%) of managers self-assessing as competent. “Dealing with performance problems” was the domain that the least proportion of managers (41.7%) felt competent. There were no statistically significant differences in competences of Nurse and Non-Nurse managers. Age, gender, occupation, education, years of service and years in management were not significant predictors of overall management competence.

**Conclusion:** Just over half of the managers were competent overall. There were significant gaps in managers competence in the performance related areas.

*Keywords: Hospitals; leadership; management competence; supervisory nursing; self-assessment.*

## ABBREVIATIONS

*HMSW : Health Management and Support Worker*

*HSP : Health Service Provider*

## 1. INTRODUCTION

In the dynamic world of health care administration, managers have been identified as key factors in ensuring that healthcare organizations are effective [1]. Several authors have identified the crucial link between organizational effectiveness and leadership styles and practices [2-4]. Apart from improving organizational effectiveness, supervisory managers leadership style has also been linked to employee satisfaction [5]. Dissatisfaction with leadership style of their managers is one major factor contributing to poor performance of healthcare employees and ultimately leaving health jobs. In developing countries where low human resource for health indices are common, supervisory managers effectiveness becomes even more important. The Nigerian health sector is particularly stressed by these inadequate human resources for health [6].

Competent managers are central to strengthening health systems and ensuring that individual and organization effectiveness is achieved [7]. Supervisory managers, particularly Nursing managers, are also acknowledged to be central to ensuring that hospitals are effective at providing quality health care, although there is inadequate knowledge regarding their competences, skills and skill gaps [8].

The tertiary hospital where this study was conducted is a busy urban hospital with nursing staff constituting majority of the healthcare

workers. Previous published studies from the institution had documented high burnout rates, [9] and some degree of family dysfunction in some of the staff [10]. This would imply that studying the managerial effectiveness of supervisory managers, particularly nursing managers, might provide key insight to possible interventions which could increase the likelihood of organizational effectiveness, as well as increase employee job satisfaction.

The study was aimed at determining supervisory managers' self-assessed managerial competence, and comparing the nursing and non-nursing managers.

## 2. MATERIALS AND METHODS

A cross sectional study was carried out. Approval was obtained from the Hospital Research and Ethics Committee for the study. We attempted a total sample of all supervisory managers in the hospital, based on data obtained from administration indicating that the hospital had a total of 56 supervisory managers: 20 nursing and 36 non-nursing managers. All the managers were presented with the study information sheet and consent form. After obtaining written consent, all consenting managers were then presented with a two-part questionnaire with the following sections:

1. Sociodemographic and work context questions
2. The WHO supervisor competency self-assessment inventory.

The results were entered into a data entry form created in SPSS version 21. (IBM, USA). The scores and the implications were subsequently presented to each participant for their

knowledge. The WHO self-assessment inventory was also consolidated as an anonymized needs assessment report and presented to the Nursing department of the hospital for developing leadership training programmes.

Data was analysed using rates, chi square for categorical variables and multinomial logistic regression to test for multivariate relationships.

All costs were borne by the Investigators.

The first part of the questionnaire contained questions determining the sociodemographic and work context characteristics of the study participants.

The second part of the questionnaire was the WHO Supervisor competency self-assessment inventory. This is part of the WHO Health and Family Planning Manager's Toolkit developed by Technical unit, Family Planning Management Development of Management Sciences for Health in 1998 [11]. This Self-Assessment Inventory outlines the major areas of competence an effective supervisor must have. The competency areas are sub-divided into categories which correspond to the major functions supervisors perform. Its primary use is as a self-assessment tool. Individuals are encouraged to use it to assess their competence and performance as supervisors and use the results to develop a plan for improvement. This

Inventory can also be used as a guide to curriculum development for Supervisory Training, using the components as the basis for a needs assessment exercise. It is an 8-part, 69-question inventory with derived scores from the Likert scale as follows:

- 4 = Very competent (capable of performing and practice this function regularly)
- 3 = Competent (capable of performing but don't practice this function regularly)
- 2 = Competency needs improvement (little experience performing)
- 1 = No competency (no experience)

For this study, competence was assessed as a self-assessed score of 3 or 4.

### 3. RESULTS

A total of 48 managers completed the study giving a study response rate of 85.7%. Most of these participants were female (70.8%), middle aged with a mean age of 46.7±8.67 (Nurses 53.1±4.26 vs Non-nurses 43.1±8.49, *P*<.001) and were mostly from the Health Service Provider cadre (64.6%). They had a mean duration of service of 19.9±10.3 years (Nurses 28.1±4.71 vs Non-nurses 15.4±9.72, *P*<.001). Median duration of management experience was 4 years and range of 1-26 years. Other details are as reported in (Table 1).

**Table 1. Sociodemographic and work context characteristics of participants**

Variable	Total # (%)	Nurses # (%)	Non-nurses # (%)	P
<b>Age group</b>				
• 25-34	5 (10.4)	0	5	.005
• 35-44	15 (31.3)	2	13	
• 45-54	20 (41.7)	10	10	
• 55-64	8 (16.7)	6	2	
<b>Sex</b>				
• Male	14 (29.2)	4	10	.315
• Female	34 (70.8)	14	20	
<b>Occupation</b>				
• HSP	31 (64.6)	18	13	<.001
• HMSW	17 (35.4)	0	17	
<b>Qualification</b>				
• Professional	4 (8.3)	0	4	.018
• Masters	2 (4.2)	0	2	
• Bachelors	34 (70.8)	18	16	
• Diploma	7 (14.6)	0	17	
• Secondary School	1 (2.1)	0	1	
<b>Duration of service</b>				
• <10 years	16 (33.3)	1	15	.005
• 10-19 years	3 (6.3)	1	2	
• 20-29 years	18 (37.5)	8	10	
• ≥30 years	11 (22.9)	8	3	

**Table 2. Supervisory competence of participants**

Variable		Total # (%)	Nurses # (%)	Non-nurses # (%)	P
• Gain acceptance as supervisor	Competent	39 (81.25)	13 (76.5)	26 (83.9)	.551
	Not competent	9 (18.75)	4 (23.5)	5 (16.1)	
• Develop employee workplan	Competent	25 (52.1)	8 (47.1)	17 (54.8)	.622
	Not competent	23 (47.9)	9 (52.9)	14 (45.2)	
• Maintain high level of performance	Competent	29 (60.4)	12 (70.6)	17 (54.8)	.308
	Not competent	19 (39.6)	5 (29.4)	14 (45.2)	
• Conduct performance review meeting	Competent	21 (43.75)	6 (35.3)	15 (48.4)	.404
	Not competent	27 (56.25)	11 (64.7)	16 (51.6)	
• Dealing with performance problems	Competent	20 (41.7)	7 (41.2)	13 (41.9)	.965
	Not competent	28 (58.3)	10 (58.8)	18 (58.1)	
• Managing conflict between employees	Competent	32 (66.7)	12 (70.6)	20 (64.5)	.692
	Not competent	16 (33.3)	5 (29.4)	11 (35.5)	
• Counselling a troubled employee	Competent	39 (81.25)	14 (82.4)	25 (80.65)	.909
	Not competent	9 (18.75)	3 (17.6)	6 (19.35)	
• Time management	Competent	32 (66.7)	11 (64.7)	21 (67.7)	.833
	Not competent	16 (33.3)	6 (35.3)	10 (32.3)	

**Table 3. Multinomial logistic regression of factors predicting managerial competence in study participants**

Variables	Adjusted Odds ratio (95%CI)	p value
Age (<50 years)	0.66 (0.10-4.42)	0.67
Gender (female)	1.85 (0.41-8.24)	0.42
Duration of employment (<20years)	3.29 (0.55-19.69)	0.19
Years in management (<10 years)	4.16 (0.64-26.92)	0.13
Education (Bachelor's degree)	0.89 (0.176-4.48)	0.89
Occupation (Nurse)	1.31 (0.21-8.29)	0.78

Overall, based on the scores in the supervisory manager inventory, 52.1% of the managers assessed themselves as competent with more Nurse Supervisors (58.8%) vs Non-nurse supervisors (48.4%) but the difference was not statistically significant. ( $P=.509$ ).

Out of the areas of competence, "Gaining acceptance as Supervisor" and "Counselling a trouble employee" were the domains with the highest proportion (81.25%) of managers self-assessing as competent. "Dealing with performance problems" was the domain that the least proportion of managers (41.7%) felt competent. There were no statistically significant differences in competences of Nurse and Non-Nurse managers. Other details are in (Table 2 above).

Multivariate analysis did not reveal any statistically significant factors predicting managerial competence in the participants. Details are in (Table 3 above).

#### 4. DISCUSSION

This study was carried out to determine the self-assessed competence rating of supervisory managers in an urban, faith-based teaching

hospital, and compare Nurse and Non-Nurse managers.

The study had an 85.7% survey response rate. Owing to the smallness of the sample size, it is difficult to compare the survey response rate of 85.7% in the current study, with the reports from similar studies among Nurse managers in South Africa and Jos (Nigeria); where the response rates were 44.6% [8] and 75% [12] respectively, as the sample sizes for those two were evidently larger. It is however almost identical to the 85% response rate from a survey of hospital managers in Abuja Nigeria [13].

#### 4.1 Sociodemographic Characteristics of Participants

This group of middle level managers were relatively young and mostly female, findings similar to previous reports from Jos and nearby cities [10,13]. Nurse managers were however significantly older than the Non-nurse managers (53.1±4.26 years vs 43.1±8.49 years,  $P<.001$ ). More Nurse managers also had Bachelors and higher degrees than Non-nurse managers. These findings seem to suggest that Managers might have been promoted to supervisory

management positions due to their length of service and clinical experience rather than as a deliberate appointment for their managerial skills. A similar study conducted among public and private sector Nurse managers in South Africa, also reported that majority of the Nurse Managers in that study were appointed in their fifties, mostly due to their clinical experience [8]. A Nigerian study had also reported that Managerial training was considered in only 37.5% of managers in private and public hospitals in Abuja Nigeria, leading to significant leadership ineffectiveness and inefficiencies [13].

This obviously has implications since appointing managers simply for long service may in the long run promote inefficiency while frustrating younger but talented managers.

#### **4.2 Workplace Characteristics of Participants**

Most managers were from the Health Service Provider cadre which is a common finding in hospitals where middle level managers are mostly professional clinical staff. Long duration of service of about two decades in this cohort, is also in keeping with patterns reported by other investigators [7,8,13]. However, Nurse managers tended to have worked for significantly longer durations ( $28.1 \pm 4.71$  years vs  $15.4 \pm 9.72$  years), even though they had spent an almost equivalent duration in Management positions. This is most likely due to the disproportionate appointment of Nursing Managers more for clinical experience, than for specific management training and skill. There are obvious implications for how effective nursing leadership would be in the hospital, with the secondary effects on staff retention, job satisfaction, commitment, work unit climate and client satisfaction with nursing services as previously elucidated by other authors in South West Nigeria [14].

#### **4.3 Supervisory Competence of Participants**

Just a little over half (52.1%) of the managers scored themselves as competent in management supervision. Nurse managers scored a little higher than Non-nurse managers but the difference was not statistically significant. Munyende and colleagues in their study of PHC Nurse managers, utilized a 360-degree instrument and compared the self-assessment of Nurse managers with the assessment of their

subordinates and supervisors [7]. The Nurse managers consistently rated their managerial competence higher than the ratings of their subordinates and their supervisors [7]. This would imply that the actual competence of the supervisory managers in our study may lie much lower than the 52.1% competence self-assessment obtained. This obviously has implications for functional effectiveness of the hospital.

There were significant differences in the domains the Supervisory managers assessed themselves as competent-in, even though there were no significant differences between Nurse managers and Non-nurse managers.

More than 80% of the supervisors felt competent in gaining the acceptance of their staff and counseling troubled employees. About two thirds also considered themselves competent in time management and managing conflicts among employees. These areas of strength which are indirect pointers to emotional intelligence, are domains that their age and long duration of service obviously give them an advantage. Our findings are in keeping with previous observations of emotional dimensions of leadership and the link with effectiveness of hospital managers reported from India, Iran, and Nigeria [1,2,15].

On the other hand, the managers self-assessed themselves as least competent in the performance-related areas of supervisory managers roles. Less than half scored within the competent range for dealing with performance problems (41.7%); Conducting performance review meetings (43.8%); and to a lesser extent, developing employee workplans (52.1%). These are core activities that underpin the vital functions of planning, organizing, directing and controlling in hospital management. These weaknesses and inactions in core managerial functions has significant implications for hospitals. Gabriel had observed that such managerial settings tend to produce counterproductive employee behavior in Nigerian public hospitals [16]. Other authors have also pointed out that the multiple challenges in the Nigerian health sector require significant levels of emotional intelligence among hospital leaders if employees would be helped to perform better [17].

Overall, this study indicates a relatively low self-reported managerial competence. This implies

that other measures of competence might very likely yield even lower assessments of competence. The very low ratings in performance domains of supervisory management also imply that this set of managers did not receive deliberate competency-based management training. Poor management performance at supervisory level has far reaching consequences for hospitals and health systems.

Our study is limited by the relatively small sample size, although we aimed for a total sample and achieved about 85% response rate. Managerial competence ratings were also based on self-reports using a tool that had not been locally validated.

## 5. CONCLUSIONS

Overall, just over half of the supervisory managers in the study were competent in basic management functions expected of supervisory managers in a hospital setting. Most managers were not competent in performance-related domains of their expected functions. There was no difference in overall management competence or specific domains between nurses and non-nurses. This calls for assessment of managerial competence, specific management training and re-training of supervisory managers in similar settings.

## CONSENT

All authors declare that written informed consent was obtained from the participants.

## ETHICAL APPROVAL

All authors hereby declare that the study was approved by the Health Research Ethics Committee of Bingham University Teaching Hospital Jos.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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