



A Comparison of Leadership Competencies among Doctors Practicing in Public and Private Hospitals in Jos Metropolis of Plateau State, Nigeria

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Abstract

Aim:

This study aimed at assessing and comparing perceived leadership competencies of doctors occupying managerial positions in a public and various private hospitals in Jos metropolis of Plateau state, Nigeria.

Materials and Methods:

This was a cross-sectional, comparative multicenter study. It involved self-assessment by 27 doctors occupying managerial positions in public and private hospitals within Jos metropolis and peer-assessments by 89 health and non-health professionals who worked with the doctor-managers at the time of the study. The National Center for Healthcare Leadership competency model was used as the assessment tool.

Results:

We found that perceived leadership competencies were low for all doctor-managers irrespective of their hospital affiliation. Distributions of these competencies varied with the private sector showing superiority for certain competencies.

Conclusion:

Perceived leadership competencies were low for the doctor-managers assessed. This calls for an innovative approach to the training and practice of health management in Jos Metropolis.

Keywords: Doctor-manager, health leadership competence, private hospitals, public hospitals, Médecin-gestionnaire, compétence de leadership en santé, hôpitaux privés, hôpitaux public

In Nigeria, many private and public hospitals are managed by medical doctors.[1] Often, those who have distinguished themselves as clinical specialists are chosen for this role and assumed to be competent enough to lead. However, the public and some health workers have expressed dissatisfaction with the quality of care in Nigerian public hospitals.[1] Public hospitals have also been troubled by incessant industrial strike actions, poor staff motivation, and strained relationships between health workers.[2]

While management structures for these institutions and existing labor laws may play key roles in the frequency of industrial strikes in Nigerian public hospitals, leadership competency among its doctor-managers has been implicated as a major contributory factor.[2,3] With evolving patient and health workers' needs, and the increasing dissatisfaction with the quality of care received at public hospitals in Nigeria, doctor-managers in these institutions would need to possess such leadership competencies that enable them surmount these challenges and maintain their hospitals' image as the preferred choice for health-care services. On the other hand, the doctor-manager in a private hospital will be expected to have the type of leadership competence that strategically positions his/her hospital, as the preferred health-care provider, taking advantage of the public hospital's struggles.

Leadership competence though laudable has suffered intense criticism. The focus on a set of individual skills has been condemned, since it describes leadership as a product, instead of a process.[4] It also presents leadership competence as a panacea for promoting health-care reforms instead of treating such problems contextually.[5] It is also argued that the use of leadership competency restricts its interpretation to observable indicators while ignoring subtle moral, situational, and emotional indicators of leadership.[6] Despite these criticisms, an alternative validated framework connecting "what" with the "how" of leadership is yet to be seen.

Competency frameworks can still provide a means of addressing both individual and organizational needs within a specific context.[7] Previous studies have established the need to outline certain leadership competencies for health-care leaders, as well as build them into an educational, developmental, and selection process of health-care leaders.[8,9] These competencies have been assessed among hospital managers in South Africa and found to be lacking among those in the public sector with a medical background.[10] An assessment of leadership competence has not been the practice in the author's study setting, hence, this study focused on answering the research question is there a significant difference between perceived leadership competence possessed by doctor-managers in a typical public hospital and those in private hospitals?

Aim

This study aimed at determining and comparing perceived leadership competencies of doctor-managers practicing in a typical public and different private hospitals within Jos Metropolis, with a view to providing recommendations for improvement.

MATERIALS AND METHODS

This study was carried out at the Jos University Teaching Hospital (JUTH), a typical public hospital, and 21 private hospitals within Jos Metropolis. Jos is the capital of Plateau State in North-Central Nigeria.[11] JUTH is a 525-bed hospital that provides primary, secondary, and tertiary health care to the people of Plateau state and the adjoining states within North-Central Nigeria. The organogram starts with the hospital management board and the Chief Medical Director (CMD). Below the CMD is the Chairman, Medical Advisory Committee (who oversees the activities of the clinical departments through the 14 Heads of Medical Departments) and the Director of Administration (a nonmedical administrator who oversees all the nonclinical departments through the Assistant Director of Nursing, Works, Finance, and Domestic services).[12] The CMD and the Heads of the Medical Departments are elected from their peers and appointed by the Federal Government of Nigeria and the JUTH management board, respectively. The private hospitals have a leaner workforce and simpler structure. Most of them have a Medical Director (often the owner of the business in a typical sole proprietorship model), a nurse/community health worker, and a nonclinical assistant in charge of records, bookkeeping, and/or general administration.

Study population

Doctors in managerial positions (i.e., doctor-managers) were the primary units of observation, while members of their staff were the secondary units of observation.

Study design

This was a cross-sectional, multicenter comparative study.

Sample size estimation

Using a 95% confidence interval (α), a power of 80% (β), and an estimated difference of 14.4%,[\[10\]](#) the minimum sample size for this study was 160.

Sampling technique

For the public hospital, all the doctor-managers were included in the study since the total number of those who met the inclusion criteria did not exceed 20. For each of these doctor-managers, three members of his staff were selected using a purposive sampling technique (i.e., those who had worked closely with the doctor-manager, had been with him/her for the longest duration of time compared to other staff members, and were accessible at the time of the study). For the private hospitals, no sample frame (official list) was available. Hence, the author interacted with other private doctors and identified 27-private hospitals within Jos Metropolis at the time of the study. Twenty hospitals were selected using a simple random sampling technique. The other staff members were selected in the same manner as for the public sector described above.

Inclusion criteria

We included doctor-managers (i.e., medical doctors in managerial positions, e.g., medical directors, heads of departments, etc.), other doctors who at the time of this study worked with the doctor-managers and nonphysician health staff (Nurses and Pharmacists) whose offices/functions were closely linked with the offices/functions of the doctor-managers. Nonhealth staff (e.g., administrative staff) whose offices/functions were closely linked with offices/functions of the doctor-managers were also included in this study.

Exclusion criteria

We excluded doctor-managers who did not work with a team of health staff or nonhealth staff in a unit or department.

Study protocol

After ethical approval was obtained for the study, informed consent was obtained from each of the doctor-managers. Baseline details (e.g., age, sex, and designation) and self-assessed leadership competencies were obtained from the doctor-managers using the questionnaires. Baseline characteristics and their perceptions of doctor-managers competencies were also elicited from the other staff.

Survey instrument

The survey instrument was divided into two parts. The first was self-designed to collect baseline data about the respondents. The second is the National Center for Healthcare Leadership (NCHL) Health Leadership Competence tool.[\[13,14\]](#) The NCHL Health Leadership Competence tool was designed and validated following research conducted by the Hay group, United States of America. It enables those interested in health-care management to assess leadership competence in different technical and human behavioral aspects. It has 26 competencies and 3 domains: transformation, execution, and people skills. For each of the competencies ranging from L1 accountability to L26 team leadership, there are 4–6 subcompetencies arranged in order of complexity (e.g., L1.1 which is less complex was given a

score of 1 while L1.6 which is the most complex subcompetency was given a score of 6). For each of the items L1–L26, doctor–managers were expected to choose a score from 1–6 corresponding to the subcompetency level that best described them, while the other respondents were expected to do same in their assessment of the doctor–manager.

Statistical test/analysis

Data obtained at each visit were entered into the Statistical Package for the Social Sciences (SPSS) for Windows, Version 16.0 for analysis.[15] The primary outcome variable for this study was perceived leadership competence by doctor–managers and the staff they worked with. Since subcompetency levels under each of the competency items L1 to L26 had a corresponding score, the median score for each competency item was determined. Using Chi-square test of independence, we compared the proportion of doctor–managers in both private and public sectors who scored above and below the median value. $P < 0.05$ was considered statistically significant, while 0.05 to 0.06 was considered at the edge of significance.

Ethical considerations

We obtained ethical approval from the JUTH ethical committee. This committee is recognized as the regional ethical review board and its approval was acceptable by the private hospitals where this study was conducted. Permission to administer the questionnaires was also sought from the heads of department/units in the public hospital and the medical directors of the private hospitals. We also obtained signed informed consent from each eligible consenting participant and treated all information collected, confidentially (i.e., no name or initials were recorded, instead identification numbers recognizable by only the researchers). Participants were free to decline participation even though they had previously given consent.

RESULTS

A total of 116 respondents were involved in this study, giving a total response rate of 72.5% (116/160). Of the 116 respondents (i.e., doctor–managers and their staff who assessed them), 63 were from private hospitals and 53 from the public hospital.

Baseline characteristics of the doctor–managers

Most were male (24/27, 88%) and above 40 years of age (i.e., 25/27, 92%). These distributions were the same for doctor–managers working in the public and private hospitals. Details can be seen in [Table 1](#).

Baseline characteristics of those who assessed the doctor–managers

Most of the doctors (18/27, 67%) involved in assessing the doctor–managers worked at the public hospital, were males (18/27, 67%), <40 years of age (20/27, 74%) and most (16/27, 59%) had spent <4 years working with the doctor–manager they were assessing.

For others who assessed the doctor–manager, most worked in the private sector (61.3%, 38/62), were female (67.7%, 42/62), aged >40 years of age (75.8%, 47/62), and most (53.2%, 33/62) spent <4 years working with the doctor–manager. Details of these baseline characteristics are available in [Tables 2](#) and [3](#).

Transformation domain of the leadership competency model

Less than half (33.6%–49%) of all the respondents indicated that the doctor–managers performed higher than the median value for each of the seven subcomponents of the transformation domain. Most of the respondents (77/116, 66.4%) scored doctor–managers less than the median value for strategic orientation; while financial skill was the subcomponent in which the doctor–managers were scored above the median value by almost half the number of respondents (57/116, 49%). Compared to the public hospital, a higher proportion of respondents from the private hospitals scored their doctor–managers higher than the median value for achievement orientation and innovation think-

ing subcomponents of the transformation domain. Similarly, a higher proportion of the respondents from the public hospitals indicated that their doctor-managers performed more than the median value for information seeking. Details can be seen in [Table 4](#).

Execution domain of the leadership competency model

Less than 50% of all the respondents (33.6%–48.3%) indicated that the doctor-managers performed higher than the median value for each of the seven subcomponents of the execution domain. The highest number of respondents (77/116, 66.4%) scored the doctor-managers less than the median value on the project management subcomponent. Communication skills were the subcomponent on which the doctor-managers were scored more than the median value by the highest number of respondents (i.e., 56/116 [48.3%]). Compared to the public hospitals, a higher proportion of the respondents from the private hospitals indicated that their doctor-managers performed better than the median value for the project management subcomponent of the execution domain. Details can be seen in [Table 5](#).

People domain of the leadership competency model

Less than half of all the respondents (i.e., 25.9%–47.4%) thought that the doctor-managers performed better than the median value for each of the seven subcomponents of the people domain. The perceived competence was least for the talent development subcomponent, as 74.1% of all the respondents scored the doctor-managers lesser than the median value; while human resource management was the subcomponent on which the doctor-managers were scored greater than the median value by the highest number of respondents (55/116, 47.4%). Compared to the public hospital, a higher proportion of respondents from the private hospitals indicated that their doctor-managers scored higher than the median value for the team leadership subcomponent. Details can be seen in [Table 6](#).

DISCUSSION

In this study, most of the doctor-managers were males and aged above 40 years [[Table 1](#)]. The male doctor dominance (as well as those aged above 40 years) in managerial positions of many hospitals across Africa and Europe has been documented in other studies.[[16,17,18](#)] While doctors need to progress through the ranks to become managers in the public hospital, for the private hospitals, doctor-managers should ordinarily not be limited to this age bracket. Perhaps, young doctors in this setting were not interested in health-care entrepreneurship, hence, the age distribution of managers from the private hospitals. For women, choosing between raising a family and pursuing a carrier is often challenging.[[19](#)]

The doctor-managers from the public hospital had more staff in each division/unit compared to those at the private hospitals. This is also consistent with observations in a study comparing private and public hospitals in France.[[20](#)] They discovered that number of staff was dependent on the hospital size and the severity of illnesses they managed. Expectedly, since public hospitals are large and attract severe illnesses, they will have more staff than private hospitals. Furthermore, considering that all the private hospitals included in this study had doctor-managers as sole proprietors who ran a predominant fee for service model of payment, expectedly their staff strength will be lower than the public hospital that receives a lot of funding for its overall cost from the federal government.

Considering all subcomponents of the leadership domains [[Tables 4–6](#)], this study revealed that irrespective of hospital setting, perceived leadership competence was low for all the doctor-managers assessed. Indeed, previous studies have acknowledged this as a reason for the dysfunctional health systems prevalent in Africa.[[2,3,21](#)]

In this study, this deficit was observed across all the units/hospitals visited in the public and private sectors. Even though managerial competencies was the focus, a similar study in Nepal also found low-leadership competences among doctor-managers from all the hospitals at Kathmandu Valley.[[22](#)]

A study in the United Kingdom (UK), found similarly effective leadership practices across public and private hospitals. One reason for this was due to the government's decision to incorporate business-like methods (found in the private sector) into the work processes of public hospitals.[[23](#)] Hence, the findings in our study may suggest an overall medical leadership deficit, implying that the public and private hospitals in Jos are not entirely separate and independent of each other and as such, weaknesses and strengths found in one sphere coexist in the other.

Even though we observed a general deficit in leadership competence, we also found some variations between the public and private sector. Doctor-managers from the private hospitals scored higher for the following competency items – *achievement orientation*, *innovation thinking* (transformation domain), *project management* (execution domain), and *team leadership* (people domain) while those from the public hospital scored higher only in information seeking [Tables 4–6]. Our findings are consistent with previous studies which observed better leadership (and managerial competence) among doctor-managers in private hospitals.[10,24] The response rate for doctor-managers from the public hospital was lesser than that from the private hospital. However, the involvement of others in the assessment of leadership competence ensured that our findings were not dependent on the doctor-managers alone. Since scoring was done by both doctor-managers and their colleagues, we consider this a strength for our study.

Implications and recommendations

Neglecting leadership competencies will no doubt make it more difficult to ensure efficient health systems and universal health coverage in Nigeria. Hence, leadership courses should be part of the medical curriculum not only as a prerequisite for completing the undergraduate and postgraduate medical training but also as a prerequisite for yearly licensing. This gives an incentive for leadership training/development all through the doctor's career.

CONCLUSION

We observed that perceived leadership competencies were low for all doctor-managers irrespective of their hospital affiliation. Distributions of these competencies varied with the private sector showing superiority for certain competencies.

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Conflicts of interest

There are no conflicts of interest.

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Table 1

Baseline characteristics of doctors in managerial positions

		Total	Public	Private	P
Doctor being assessed	Count	27	6	21	
Gender					
Male	Count	24	5	19	0.62
Female	Count	3	1	2	
Age group					
	<40 years	2	0	2	0.43
	>40 years	25	6	19	
* DSSG					
	<36	14	2	12	0.30
	>36	13	4	9	
#TSICO Grouped					
	<4 years	14	5	9	0.08
	>4 years	13	1	12	
†NOOPP Grouped					
	<2	16	3	13	0.60
	>2	11	3	8	
‡TDPLP grouped					
	<4	14	2	12	0.30
	>4	13	4	9	
**Course P. Grouped					
	<8	14	2	12	0.30
	>8	13	4	9	
##Course A Grouped					
	<5	14	4	10	0.41
	>5	13	2	11	
Specialty					
®GPs	Count	6	0	6	0.18
ⓂFPs & PHS		7	1	6	
Hospital Specialist		14	5	9	
Managerial level					
~CMD/CEO	Count	14	0	14	<0.01
~~HOD/Unit Head		13	6	7	

*DSSG-departmental staff strength, #TSICO-Time spent in current office, †NOOPP-No. of previous positions, ‡TDPLP-Total duration of previous leadership posts, **Course P-Managerial/Leadership courses attended prior to current position, ##Course A- Managerial/Leadership courses attended after assuming position. ®GPs- General Practitioners, ⓂFP-family physicians, PHS - public health specialists, ~ CMD/CEO-Chief medical Director/Chief Executive Officer, ~ ~ HOD-Head of department, < less than, > greater than

Table 2

Baseline characteristics of doctors who assessed the doctor-manager

		Total	Public	Private	P
Doctors who assessed the Doctor-Managers	Count	27	18	9	
Specialty	Count				
*GPs		5	0	5	
#FPs & PHS		11	7	4	<0.001
Hospital Specialists		11	11	0	
Gender	Count				
Male		18	11	7	
Female		9	7	2	0.39
Grouped Age					
<40 years		20	13	7	
>40 years		7	5	2	0.76
Grouped length of time spent with doctor being assessed					
<4 years		16	7	9	
>4 years		11	11	0	0.002

*GPs- General practitioners without residency training, #FPs - Family physicians, PHS - Public health specialists, < less than, > greater than, $\alpha = 0.05$

Table 3

Baseline characteristics of other health workers who assessed the doctor-manager

		Total	Public	Private	P
Other health workers who assessed the Doctor-Managers	Count	62	24	38	
Professional Discipline	Count				
Not stated		11	4	7	0.16
Administrators/Accountants		21	10	11	
*CHEW/CHO		3	1	2	
Nurses		22	6	16	
Medical Lab. Scientists		3	3	0	
Pharmacists		2	0	2	0.48
Gender	Count	20	9	11	
Male		42	15	27	
Female					
Grouped Age					
<40 years		15	4	11	0.27
>40 years		47	20	27	
Grouped length of time spent with Doctor being assessed					
<4 years		33	9	24	0.02
>4 years		29	15	14	

*CHEW - community health extension workers, CHO - community health officers. $\alpha = 0.05$, < less than, > greater than

Table 4

Performance levels of the doctor-manager in the Transformation domain as perceived by all the respondents

	Median	Total	Hospital setting		
			Public <i>n</i> (%)	Private <i>n</i> (%)	<i>P</i>
Achievement orientation	≤2	73	35 (73)	38 (56)	0.06
	>2	43	13 (27)	30 (44)	
Analytical thinking	≤2	65	26 (54)	39 (57)	0.73
	>2	51	22 (46)	29 (43)	
Community orientation	≤2	61	24 (50)	37 (54)	0.64
	>2	55	24 (50)	31 (46)	
Financial skills	≤2	59	24 (50)	35 (51)	0.88
	>2	57	24 (50)	33 (49)	
Information seeking	≤2	70	24 (50)	46 (68)	0.06
	>2	46	24 (50)	22 (32)	
Innovation thinking	≤3	75	38 (79)	37 (54)	<0.01*
	>3	41	10 (21)	31 (46)	
Strategic orientation	≤2	77	31 (65)	46 (68)	0.73
	>2	39	17 (35)	22 (32)	

≤ less than or equals to, > greater than, $\alpha = 0.05$, * distribution that is significant, marginal ones are underlined

Table 5

Performance levels of the doctor-manager in the Execution domain as perceived by all respondents

	Median	Total	Public n (%)	Private n (%)	P
Accountability	≤2	66	29 (60)	39 (57)	0.52
	>2	50			
Change leadership	≤2	70	19 (40)	29 (43)	0.45
	>2	46			
Collaboration	≤3	67	27 (56)	43 (63)	0.92
	>3	49			
Communication skills	≤2	60	21 (44)	25 (37)	0.76
	>2	56			
Impact and influence	≤3	72	28 (58)	39 (57)	0.14
	>3	44			
Information technology management	≤2	61	20 (42)	29 (43)	0.64
	>2	55			
Initiative	≤2	62	24 (50)	36 (53)	0.61
	>2	54			
Organization awareness	≤2	66	24 (50)	32 (47)	0.62
	>2	50			
Performance management	≤1	61	26 (54)	46 (68)	0.64
	>1	55	24 (50)	31 (46)	
Process management and Organization design	≤2	67	25 (52)	42 (62)	0.30
	>2	49	23 (48)	26 (38)	
Project management	≤2	77	40 (83)	37 (54)	<0.01*
	>2	39	8 (17)	31 (46)	

< less than, ≤ less than or equals to, > greater than, $\alpha = 0.05$, *distribution that is significant

Table 6

Performance levels of the doctor-manager in the People domain as perceived by all respondents

	Median	Total	Public n (%)	Private n (%)	P
Human resource Management	≤1	61	24 (50)	37 (54)	0.64
	>1	55	24 (50)	31 (46)	
Interpersonal understanding	≤ 2	62	26 (54)	34 (53)	0.90
	>2	54	22 (46)	32 (47)	
Professionalism	≤ 1	65	24 (50)	41 (60)	0.27
	>1	51	24 (50)	27 (40)	
Relationship building	≤ 2	68	28 (58)	40 (59)	0.96
	>2	48	20 (42)	28 (41)	
Self confidence	≤ 2	65	24 (50)	41 (60)	0.27
	>2	51	24 (50)	27 (40)	
Self-development	≤ 2	66	29 (60)	37 (54)	0.52
	>2	50	19 (40)	31 (46)	
Talent development	≤ 3	86	37 (77)	49 (72)	0.54
	>3	30	11 (23)	19 (28)	
Team leadership	≤ 2	73	38 (79)	35 (51)	<0.01*
	>2	43	10 (21)	33 (49)	

< less than, ≤ less than or equals to, > greater than, $\alpha = 0.05$, * distribution that is significant