A Study of Managerial Practices of Pharmacists Working in Teaching Hospitals in South-Western Nigeria

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There is a dearth of studies on managerial practices by hospital Pharmacists in Nigeria. The objectives of this study were to identify the types of managerial skills, leadership styles used by hospital pharmacists, and assess the influence of such leadership styles on managerial practice. A cross-sectional survey of randomly selected 137 registered pharmacists in five teaching hospitals was conducted using pre-tested questionnaires. Responses were analyzed with appropriate descriptive and inferential statistics with the aid of SPSS version 20 software. The response rate was 80.6%. The study revealed that conceptual, human and technical skills were the dominant skill types while the leadership style was more transformational than transactional. There was a positive correlation between human and technical skills. Negative correlation was observed between transformational and transactional leadership style components. The study showed that more attention should be paid to management courses at the undergraduate level in order to equip pharmacists with managerial and leadership skills for hospital practice.

INTRODUCTION

Knowledge and skills in management are essential for effective utilization of scarce resources while the quality of managerial practices by hospital pharmacists, is partly dependent on the types of leadership structure in place. Meanwhile, attitudes towards management and leadership roles in the health system expose a potential gap in Pharmacy leadership [1]. Hence the need for increased focus on management and leadership development for hospital Pharmacists [2-4].

Literature is replete with what management and the functions of managers are all about. Every organization desires to have a good management structure and high performing leadership in place at all times. However, no particular management style has been adjudged the best. Rather, what prevails in most cases, is that every organization usually puts in place what it deems fit for a particular situation.

Three basic levels of managers have been identified [5]. These are line managers, middle managers and top managers [6]. All the categories of managers require technical, human, and conceptual skills at varying degrees. Managerial roles on other hand are classified as interpersonal, informational and decisional in nature [7]. All managers require three essential generic skills to perform their goals namely; technical skills, human skills, and conceptual skills [8, 9].

Leadership is the ability to influence the behaviour of others in order to achieve organizational vision and goals [10]. It also influences organizational culture, structure, climate, communication, productivity and performance [11-13].

Few studies on managerial practices of hospital pharmacists in Nigeria are available. The present study was therefore designed to answer three currently unresolved questions in academic discourse through the following objectives: identify the types of managerial skills in use by hospital pharmacists; identify the leadership styles of pharmacists; and, assess the influence of such leadership styles on managerial practices by pharmacists in teaching hospitals in South-Western Nigeria.

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The study was aimed at providing more evidence-based information on managerial practices of teaching hospital pharmacists in resource limited settings as well as highlight areas of improvement. Accordingly, it could serve as a data base for future research in human resource management practices in hospitals and may also act as a template for tertiary hospitals in human resource activities.

METHODS

Study Area

The study which was carried out between February, 2015 and March, 2016, was a cross sectional survey of registered pharmacists in five Teaching hospitals in South-Western Nigeria. The study sites were situated in four South-Western Nigeria states as follows: Ladoke Akintola University Teaching Hospital (LAUTH), Osun State; Lagos State University Teaching Hospital (LUTH), Lagos State; Olabisi Onabanjo Teaching Hospital (OOUTH), Ogun State; University College Hospital Ibadan (UCH), Oyo State; and Lagos University Teaching Hospital (LUTH), Lagos State.

Sampling Procedure

The sampling frame consisted of all pharmacists in the selected teaching hospitals who had completed their internship and youth service programme. The study sample was obtained using stratified random sampling method. The pharmacists were classified into their respective strata such as Chief Pharmacist, Deputy Chief Pharmacist, Assistant Chief Pharmacist, Principal Pharmacists, Pharmacist Grade 1, and Pharmacist Grade 2 in order of decreasing seniority.

Sample Size determination

The total number of teaching hospitals in South-Western Nigeria as at 2016 were eight. Out of this, five (5) were purposefully selected with the following number of Pharmacists namely, OOUTH (13), UCH (80), LASUTH (30), LUTH (53), and LAUTECH (16) giving the total number of pharmacists of 192 which served as the sample frame. The sample size was determined using the Yaro Yamane's formula [14]:

$$n = \frac{N}{1+N(e)^2} = \frac{192}{1+192(0.05)^2} = 130$$

where, n = sample size, N=population size, e = tolerable error (5%)

Research Instruments

Multifactor leadership questionnaire (MLQ-5) was adapted in designing of the questionnaire [15]. It was further modified to collect data which were related to pharmacy management practice and leadership styles. The questionnaire consisted of four sections A, B, C, and D. Section A, contained information on socio-demographic variables of respondents while section B contained questions on core issues. Section C was on management skills used by hospital pharmacists. Lastly, questions on leadership styles of the Head of Department were presented in section D. An oral interview session was held with the various Heads of Department of Pharmacy.

Validity and Reliability of Research Instruments

Questionnaires were pre-tested at Adeoye Maternity and Teaching Hospital, Yemetu, Ibadan. This was done by administering eight questionnaires to different cadres of pharmacists at the facility. Codes were given to each questionnaire and after 3 weeks the same questionnaires were re-administered to the same participants (test-retest method). Tests were carried out to check for reliability whereby a reliability coefficient of 0.8 was obtained. The content and face validity were confirmed using senior academics, supervisors and experienced researchers in Pharmacy Practice research.

Data Collection

Primary data was collected using pre-tested structured questionnaire and oral interview of all Heads of Pharmacy Departments. The

questionnaire elicited information on the types of managerial skills and leadership styles of pharmacists as well as the influence of leadership styles on managerial practices of pharmacists. The interview yielded more information on the leadership styles and managerial practices of the Heads of Pharmacy Departments to complement information obtained using the questionnaire.

Data Analysis

Data was analyzed using the SPSS Version 20 software and presented with descriptive statistics such as frequencies, percentages, means and standard deviation to identify the managerial skills and leadership styles while inferential analysis, such as Chi-square and correlation techniques were employed to assess the influence of such leadership styles on managerial practices of the hospital pharmacists.

Ethical Approval

Ethical approval was obtained from Health Research Ethics Committee (HREC), Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Nigeria under protocol number IPHOAU/12/474. Administrative approval was obtained from all the pharmacy departments in the study hospitals. Respondents were briefed about the purpose of the research and requested to fill the consent form before the study tools were administered.

RESULTS & DISCUSSION

Out of the 170 questionnaires distributed, 137 were completed, retrieved and found suitable for analysis thus giving a response rate of 80.6%. There was a larger proportion of the female respondents (55.5%) which agrees with previous surveys on hospital pharmacists [16]. More respondents (29.9%) had graduated from university within the last 5-10 years compared to other brackets. A majority of respondents had a Bachelor of Pharmacy (B. Pharm.) qualification as their first degree (Table 1) and occupied the positions of Pharmacist 1, Senior Pharmacist, Principal Pharmacist, Chief Pharmacist, Assistant Director, Deputy Director and Director of Pharmacy.

Most of the respondents possessed all the three key types of skills namely technical, human, and conceptual [8,9] to varying degrees as recorded in Table 2.

This finding reinforced the assertion made by previous researchers, that managers require three essential generic skills to manage and achieve organizational objectives [8, 9]. The least managerial skill identified amongst the managers was the technical skill. This is also in tandem with the amount of technical expertise expected from professionals as seen even in related health professionals such as nursing and medicine [17]. Furthermore, human skill was the predominant skill type deployed by the managers of the study hospitals, in their daily routine. This result is expected because hospital pharmacist/managers frequently interact with clients, subordinates, and patients in pursuit of organizational objectives especially in ensuring optimal therapeutic outcomes for patients. Conceptual skills were moderately used by most managers which is at variance with apriori expectation since the hospital environment is usually made up of a critical mass of highly skilled professionals. Top level managers therefore need conceptual skills to think through and conceptualize abstract and complex problems, in order to understand the relationships among various subunits and visualize how the pharmacy departments can fit into the broader environment.

Table 1:   **Socio-demographic characteristics of respondents**

Variables	Frequency	Percentage (%)	Cumulative %
Sex			
Male	61	44.5	44.5
Female	76	55.5	100.0
Total	137	100.0	
Age (yrs)			
20-29	32	23.3	23.3
30-39	66	48.2	71.5
40-49	30	21.9	93.4
50-59	9	6.6	100.0
Total	137	100.0	
Name of Institution			
UCH	60	43.8	43.8
LAUTH	15	11.0	54.8
LUTH	40	29.2	84.0
LASUTH	18	13.1	97.1
OOUTH	4	2.9	100.0
Total	137	100.0	
Year of Graduation			
1-5yrs	34	24.8	24.8
5-10yrs	41	29.9	54.7
11-15yrs	22	16.0	70.7
15-20yrs	25	18.3	89.0
Above 20yrs	15	11.0	100.0
Total	137	100.0	
Years of experience			
<5yrs	55	40.1	40.1
5-10yrs	35	25.6	65.7
11-20yrs	37	27.0	92.7
Above 20yrs	10	7.3	100.0
Total	137	100.0	

Table 2:   Multivariate Analysis of Skill Types

Institutions	Technical Skills Range N (%)			Human Skills Range N (%)			Conceptual Skills Range N (%)		
	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
UCH	0 (0.0)	33(55.0)	27(45.0)	2(3.3)	47(78.3)	11(18.3)	12(20.0)	38(63.3)	10(16.7)
LAUTH	0 (0.0)	10(66.5)	5(33.3)	0(0.0)	13(86.7)	2(13.3)	5(33.3)	8(53.3)	2(13.3)
LUTH	0 (0.0)	19(47.5)	21(52.5)	2(5.0)	30(75.0)	8(20.0)	26(65.0)	26(65.0)	8(20.0)
LASUTH	0 (0.0)	13(72.2)	5(27.8)	0(0.0)	12(66.7)	6(33.3)	10(55.6)	10(55.6)	4(22.2)
OOUTH	0 (0.0)	2(50.0)	2(50.0)	1(25.0)	2(50.0)	1(25.0)	3(75.0)	3(75.0)	1(25.0)
TOTAL	0 (0.0)	77(56.2)	60(43.8)	5(3.6)	104(75.9)	28(20.4)	85(62.0)	85(62.0)	25(18.2)

P≤0.05, n=137, Technical Skills: χ^2= 3.872, P=0.424, Human Skills: χ^2 = 9.262, P=0.321, Conceptual Skills: χ^2 = 3.802, P=0.875

Two leadership types namely transactional and transformational were identified as frequently used. However, the transformational leadership was more prominent among the various Heads of Departments (Table 3). Transformational leadership style has the ability to not only influence behavior of subordinates [10] but also organizational culture, structure, and performance [11, 13].

This leadership style which is represented by Idealized Influence Attributed, Idealized Influence Behavior, Inspirational Motivation, Intellectual Simulation, Individualized Consideration and Contingent Reward had higher mean scores as compared to transactional leadership style represented by Management by Exception (Active), Management by Exception (Passive) (Table 4).

Table 3:   Leadership types in pharmacy departments of the teaching hospitals

Institutions	Transactional	Transformational	Laissez- faire	**Total**
UCH	4	56	0	60
LAUTH	2	13	0	15
LUTH	5	35	0	40
LASUTH	1	17	0	18
OOUTH	1	3	0	4
TOTAL	13	124	0	137

Table 4:   **Elements of conceptualized transactional and transformational leadership styles in pharmacy departments of the teaching hospitals**

Variables	No	Min	Max	Mean	Std. Dev.
Idealized influence Attributed	119	0	16	11.03	3.55
Idealized Influence Behavour	111	3	16	11.62	3.20
Inspirational Motivation	118	3	16	12.07	3.35
Intellectual Simulation	95	0	16	10.09	3.53
Individualized Consideration	122	1	16	9.43	3.26
Contingent Reward	114	0	16	10.33	3.57
Management by Exception (Active)	118	0	16	9.04	4.07
Management by Exception (Passive)	120	2	14	5.71	2.71

The influence of leadership styles on managerial practices of Pharmacists in the teaching hospitals, revealed that there was a positive correlation between human skills and technical skills as well as between conceptual skills and human skills. There was also a positive correlation between various components of transformational leadership style. However, a negative correlation was observed between transformational and transactional leadership style components (Table 5). Meanwhile, no significant relationship was observed between leadership styles and managerial skills. Otherwise such synergy could cause great influence on managerial practices.

CONCLUSION

The study revealed that the types of managerial skills in use were conceptual, human and technical skills. The leadership styles were more of transformational than transactional in nature. The influence of leadership styles on managerial practices was dependent on the components that make up transformational leadership style. Laissez-faire leadership and passive management by exception, negatively influenced managerial practices.

Based on the results obtained, it is recommended that incessant trainings on leadership styles should be carried out for all managers within the pharmacy departments in a bid to prepare them for headship. As a precursor, management courses should be given more attention in the pharmacy curriculum at the undergraduate level.

Table 5: **Influence of leadership styles on managerial practices in the teaching hospitals**

Variables	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X_{12}
X_1	1.000											
X_2	.396**	1.000										
X_3	.335**	.536**	1.000									
X_4	-.102	-.051	.035	1.000								
X_4	-.001	.021	-.032	.540**	1.000							
X_6	-.167	-.092	-.048	.648**	.674**	1.000						
X_7	.008	.000	.041	.581**	.621**	.608**	1.000					
X_8	-.074	-.010	-.030	.600**	.537**	.472**	.613**	1.000				
X_9	-.132	-.028	.015	.590**	.705**	.724**	.688**	.654**	1.000			
X_{10}	-.006	-.168	-.084	-.016	.244*	.126	.097	-.092	.062	1.000		
X_{11}	-.025	-.001	.036	-.227*	-.312**	-.367**	-.258*	-.187*	-.239*	.056	1.000	
X_{12}	.125	-.059	-.069	-.283**	-.400**	-.493**	-.351**	-.186*	-.326**	.057	.604**	1.000

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

X_1= Technical Skill, X_2= Human skill, X_3= Conceptual skill, X_4= Idealized Influence Attributed, X_5= Idealized Influence Behaviour, X_6= Inspirational Motivation,
 X_7= Intellectual Simulation, X_8= Individualized Consideration, X_9= Contingent Reward, X_{10}= Management by Exception (Active),
X_{11}= Management by Exception (Passive), X_{12}= Laissez-Faire Leadership

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