



Assessment of Managerial Practices at selected Teaching Hospital in Khartoum State: A case study

Abdullahi Ibrahim Janay^{1*}, Abdulmageed Osman Musa¹, Murwan Eisa Osman¹

¹Department of Community Medicine, Faculty of Medicine, International University of Africa

Abstract

Background and Objectives: Hospital management and its manner of governance influence different aspects of hospital performance. In Sudan; there were rare research about hospital management. The objective of this study was assessment of managerial practices of selected Teaching Hospital in order to improve the strategies of providing services and teaching.

Methods: A cross-sectional descriptive -analysis study was carried out in the period of January 1st to 15th of the year 2018. Sample size was 57 selected teaching hospital administrators, selected by randomly total coverage. The tool for data collection was a self-administered written questionnaire, which measures dimensions of planning, organizing, directing, evaluating, and materials, money, manpower and time management. Correlation test is used to analysis of Data. Data was entered to SPSS software version 20.

Results: Hospital administrators were 57.9% male and 42.1% female. 42% were married. 61% had a bachelor certificate. They gave overall high mean score on all dimensions of managerial practices; Planning=3.63, Organizing=3.66, Directing=3.69, Evaluating=3.57, Materials management=3.67, Money management=3.47, Manpower management=3.66, Time management=3.7 and Total variables=3.64.

A weak significant relationship was observed between 'materials management' and 'money management', 'money management' and 'directing', and also between 'time management' and 'planning' dimensions.

Conclusion: Hospital managers have to launch urgent initiative programs to concentrate and enhance specific aspects of hospital administration in order to improve their general management, including preparedness to internal fire disasters, financing from other than government sources, adequacy of health care workers and evaluation of satisfaction rate of customers. Health Policymakers have to give hospitals higher levels of autonomy in managing, including financial budgeting, and human resource management.

Keywords: Hospital management, Teaching hospital, Hospital administrators, Managerial practices, Assessment

Background and Objectives:

Reinforcing health systems is a globally urgent requirement as declared by the World Health Organization and the World Bank. At the core of this requirement lies the need for improving management capacity within healthcare delivery systems¹. Health systems are defined by WHO as comprising all the organizations, institutions and resources that are devoted to producing health actions including hospitals².

Hospitals constitute the most important components of the health systems, given their role in direct delivery of health care services as well as being the major consumer of health budget and resources³. Thus, all hospital administrators should have a good understanding of hospital organization and management for better care of their patients.

*Corresponding Author: Abdullahi Ibrahim Janay

Email: abdallaidari1311@hotmail.com

Moreover they should also have enough knowledge for management of human, material and financial resources in a cost effective way with optimum time approach, because Hospital Administration cannot be done on intuition. It needs a well awareness of the scientific methods to run and evaluate the hospital functions and services in an objective fashion⁴. Hospital management covers a large number of activities as the services are unique and rendered by different professionals from the medical, nursing, and other specialized backgrounds. Thus hospital management requires a great deal of tact and ingenuity. There is a great concern for clarity and responsibility. The cost of making mistake inpatient care is likely to be very high with serious life and legal consequences⁵.

Sudan, especially since it is a developing country, confronts problems along these; such as scarcity of resources which makes more important for hospital administrators to understand and practice management. And shortage of qualified managers in this field because of lack of hospital management specialties in the universities and institutions make necessary to do research in this field to assess the managerial practices, identify problems and recommend solutions.

The first step towards developing management capabilities in hospitals is to assess the current managerial skills of administrators. Self-assessment of managerial skills can lead to identification of management strengths as well as skill inadequacies that require urgent improvement to improve actions and works¹. The selected teaching hospital has been a district hospital and changed to a central hospital, at the same time it was used for training of medical students which made it more complex having to adopt various managerial practices that could be the process of infrastructure management or day-to-day operations.

Studies show that hospital management practices influence different aspects of hospital performance⁶, and correlate with the clinical outcomes it achieves, including mortality rates, as well as with the patients' satisfaction with care⁷.

A previous study; Self-assessment of Administrators' Managerial Skills and their Relationship with Effective Management in Hospitals of Tehran University of Medical Sciences: results identified relatively high self-assessment score on leadership ability and effective management, but the scores for effective use of organizational teams, employee motivation and change management were low. In addition, among considered dimensions of management skills, only leadership ability showed significant correlation with effective management.

Another study, Global Hospital Management Survey – China: important findings include: • Quality of management practices in interviewed public hospitals is slightly below average. However, the overall average management score is higher than expected for a developing country like China. • Public hospitals in China scored the highest in standardization of care and scored the lowest in talent management. • While performance and target management scores were average, management practices associated with autonomy were low.

A study on Clinical Governance: The Challenges of Implementation in Iran: found Seven themes explain challenges of implementing clinical governance, including human resources, management, communication, training, culture, resources, monitoring and regulations.

In-hospital maternal mortality and morbidity of Ibrahim Malik Teaching

Hospital study: Results identified primary delays in seeking care and suboptimal service delivery as the main contributors to in-hospital maternal morbidity in IMTH. - The main cause of mortality was post-

partum hemorrhage, with high rates of morbidity from cephalo-pelvic disproportion leading to obstructed labor +/- uterine rupture, post-partum hemorrhage and vesico-vaginal fistulae. - Equipment and resources: Checklists found basic equipment to be adequate, although no hand held dopplers or CTG machines were available. Instead only pinards were in use. Problems were identified in the area of blood transfusion availability and delivery such as a lack of donors, a lack of O-ve blood, and poor communication between house officers and lab technicians. - Staff training and job satisfaction: Interviews with patients and staff also highlighted low staff morale and a need for better salaries, better supervision of juniors and more training opportunities. - Management of normal labor: Practice during labor and was variable and did not always correspond to WHO recommendations for best practice. Practice was aseptic, as reflected in the low morbidity rates due to sepsis. However practice included the routine use of oxytocin for all primagravidas, reinfibulation of circumcised women and not allowing relatives to be present during labor. Analgesia was not routinely given. - Management of obstetric Emergencies: Protocols for emergencies were generally clear and accurate, however, resource limitation was a problem e.g. magnesium not routinely given in eclampsia due to lack of availability. Delays in management included delaying C-sections until they were emergencies as patients then became exempt from paying. - Antenatal Care: In hospital-user fees for appointments and ultrasound scans. Partial attendance due to transport problems/childcare issues. Health Centre-Free (funded by NGO). Community outreach team (NB there are not enough of these to cover all of Khartoum). Referral system for high-risk cases. - Health Education Needs: No organized community health education programs. Patient

interviews highlighted need for antenatal and postnatal advice e.g. on breastfeeding, family planning.

The aim of this study was to assess managerial practices at selected teaching hospital in Khartoum state, Sudan.

Methods:

A descriptive analysis study was carried out in the period of January 1st to 15th of the year 2018 by randomly total coverage collecting data from 57 administrators (2 general managers, 12 managers, 30 head departments and 13 supervisors) of the selected hospital using census of among managers. Self-administered questionnaire was used in the study. 5 references were read for designing questionnaire. Questionnaires were validated by 2 professors in the community medicine department and micro-committee of Khartoum state ministry of health, research department. 49 questions were specified to measure management practices dimensions in the questionnaire as follows: planning (7 questions), organizing (15 questions), directing (10 questions, and evaluating (17 questions). Materials, money, manpower and time Management were assessed in the aforementioned dimensions' questions of the questionnaire according to the relation. Materials management (6 questions), money management (6 questions), manpower management (22 questions) and time management (2 questions). The demographic character since it is not more important for the study -as the study is assessment only not relation to the demographic factors- it was measured collectively by interview and observation, Hospital administrators were 57.9% male and 42.1% female. 42% were married. 61% had a bachelor certificate. A nominal four-point Likert-type style was used to measure the level of each item of the questionnaires, containing; yes = (score of 4 to 3.25), no =

(score of 3.25 to 2.50), unknown = (score of 2.50 to 1.75) and not applicable = (score of 1.75 to 1). Scores of "YES" were considered as "high or good", and scores in the range of "NO" were labeled as "low or bad" and anything other was regarded as "not meaningful".

The questionnaires were delivered to hospital administrators; research purpose and objectives were explained to them in clear simple words and given right to voluntary informed consent, then were asked to fill the forms of the questionnaire.

All participants filled and returned the questionnaires except two of them (response rate = 96.6%).

The reliability of the measurement tool was confirmed by obtaining a Chronbach's alpha of 0.88. Data entered to SPSS software version 20 and analyzed using descriptive statistics (mean and mode) and Pearson correlation analysis (significance level 0.05 and 0.01).

Results:

As Table 1 shows, the hospital administrators received good average scores (Between 1 to 1.75) in the dimensions of 'managerial practices'.

Table 1: Mean score of managerial practices' dimensions of IMTH administrators

Dimensions	Mean
Planning	3.63
Organizing	3.66
Directing	3.69
Evaluating	3.57
Total var.	3.64
Materials	3.67
Money	3.47
Manpower	3.66
Time	3.7
Total (56 persons)	

About eighty one percent of IMTH administrators gained good scores in 'planning', followed by 93% good scores in 'organizing'. In 'directing' 89.3% of IMTH administrators gained good scores, and in 'evaluating' 87.7% of IMTH administrators got good scores. Eighty three percent of IMTH administrators rated good scores in 'general management', and approximately eighty eight percent of IMTH administrators evaluated themselves as good in 'materials management'. About seventy seven percent of IMTH administrators scored good in 'money management', in 'human resource management' 94.7 % of IMTH administrators scored good scores. And in 'time management' 86 % of IMTH administrators got good scores.

Table 2: The lowest mean in dimensions of managerial practices of IMTH administrators

Variables	Mean
Preparedness to internal fire disasters	3.25
Financing from other than government sources	3.29
Adequacy of health care workers	3.25
Evaluation of satisfaction rate of customers	3.23
Total (56 persons)	

The hospital administrators got low average scores (Between 1.75 to 2.50) in 4 of the variables.

Approximately thirty percent and sixty eight percent of respondents received low scores in preparedness to response for internal fire disasters and the adequacy of health care

workers respectively. In financing from other than government source, 38.6% of participant administrators got low scores and 44.6 % of the respondents gained low scores in evaluation of the satisfaction rate of customers.

Correlation		materials	money	manpower	time	total	planning	organizing	directing	evaluating
materials	Pearson Correlation	1	.422**	.670*	.476**	.802**	.681**	.715**	.522**	.769**
	Sig. (1-tailed)		.001	.000	.000	.000	.000	.000	.000	.000
	N	57	57	57	57	57	57	57	56	57
money	Pearson Correlation	.422**	1	.447*	.304*	.600**	.531**	.667**	.406**	.466**
	Sig. (1-tailed)	.001		.000	.011	.000	.000	.000	.001	.000
	N	57	57	57	57	57	57	57	56	57
manpower	Pearson Correlation	.670**	.447**	1	.519**	.927**	.688**	.743**	.823**	.843**
	Sig. (1-tailed)	.000	.000		.000	.000	.000	.000	.000	.000
	N	57	57	57	57	57	57	57	56	57
Time	Pearson Correlation	.476**	.304*	.519*	1	.538**	.323**	.594**	.464**	.459**
	Sig. (1-tailed)	.000	.011	.000		.000	.007	.000	.000	.000
	N	57	57	57	57	57	57	57	56	57
total	Pearson Correlation	.802**	.600**	.927*	.538**	1	.814**	.810**	.832**	.892**
	Sig. (1-tailed)	.000	.000	.000	.000		.000	.000	.000	.000
	N	57	57	57	57	57	57	57	56	57
planning	Pearson Correlation	.681**	.531**	.688*	.323**	.814**	1	.534**	.527**	.661**
	Sig. (1-tailed)	.000	.000	.000	.007	.000		.000	.000	.000
	N	57	57	57	57	57	57	57	56	57
organizing	Pearson Correlation	.715**	.667**	.743*	.594**	.810**	.534**	1	.663**	.621**

	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000		.000	.000
	N	57	57	57	57	57	57	57	56	57
directing	Pearson Correlation	.522**	.406**	.823*	.464**	.832**	.527**	.663**	1	.627**
	Sig. (1-tailed)	.000	.001	.000	.000	.000	.000	.000		.000
	N	56	56	56	56	56	56	56	56	56
evaluating	Pearson Correlation	.769**	.466**	.843*	.459**	.892**	.661**	.621**	.627**	1
	Sig. (1-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	57	57	57	57	57	57	57	56	57

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

Table 3: Correlation among dimensions of managerial practices of IMTH administrators with each other

A weak positive relationship is observed between ‘materials management’ and ‘money management’, ‘money management’ and ‘directing’, and also observed between ‘time management’ and ‘planning’.

Discussion:

In this study; IMTH got good average scores of 1.4 in ‘general management’, 93% of them rated good. A study conducted by H. Dargahi & G. Shaham showed that the administrators of Tehran University of Medical Sciences (TUMS) have received good average scores of 75.8 % in ‘Effective management’, 73 % of them rated good. There are no other similar studies¹. Their study agreed this study result. And this agreement is an indicator that the model in IMTH is consistent with that of TUMS study.

Findings on performance management scores were good. P. Horak et al conducted Global Hospital Management Survey – China pilot study. Their major important findings included: performance management scores were average. Among the dimensions measured in that study; Chinese hospitals had the highest average score in performance tracking. Managers felt, on the whole, that this indicator is critical for

hospital evaluation⁸. When compared to the results; IMTH evaluating’s average score is quite better. A key difference of this comparison lies in the number of hospitals that participated in this study relative to that study. The number of hospitals in this study is substantially lower than that of the GHMS-China pilot study, and only included 1 hospital.

The mean scores of some variables in the dimensions were low. In employees’ preparedness to response for internal fire disasters; the low score of (1.75) suggests that they are not prepared. In comparison of the result with the study result of K. Shukla et al; they found; out of 20 questions, awareness was high (>90%) only for 3 questions, for the remaining questions, awareness was moderate to low⁹. and it is similar to the finding. Moreover, the similar low assessment of hospital administrators regarding adequacy of health care workers (1.75) which shows unsatisfactory is an indication for low efficiency of human resource management.

Financing from other than government source also got low mean scores (1.81) which shows that there is no another source, and the respondents underrated the role of Money management practices in financing from other than government source as perceived by the respondents to ensure

enough health care workers and buy extinguishers and train them how to be used. Therefore corroborates low efficiency of human resource management. Study results of K. Carter et-al show that management practices predict a hospital's financial performance, and better managed hospitals had better financial performance¹⁰. Their study is similar to this, and this may be from low autonomy given to managers. In K. Carter et-al survey found that the degree of autonomy given to managers is among factors influence the likelihood that a hospital has good management practices.

As we saw; results showed good scores in the dimensions of manpower and money resources management, with some problems within them and also showed good scores in general evaluation, but low scores in the evaluation of the satisfaction rate of customers. There is a qualitative research on Clinical Governance: The Challenges of Implementation in Iran, done by R. Dehnavieh et-al among clinical governance executives of teaching hospitals affiliated with Kerman University of Medical Sciences and the academicians involved in administration of the clinical governance. Its findings are: Seven themes explain challenges of implementing clinical governance, including human resources, management, communication, training, culture, resources, and monitoring and regulations¹¹. Its findings agree with all the results; in the human resource management, resources (manpower and money) and monitoring or evaluation and it is consistent with this research.

The results; on supervision, training opportunities and cooperation between staff were good (1.09 & 1.36) scores respectively. But there is a previous participatory rapid appraisal approach at the same hospital about In-hospital maternal mortality and morbidity accomplished by C. Blunden et-al. concluded a need for Better supervision and more training opportunities for junior

staff and cooperation between house officers and lab technicians³. This difference may be because they concentrated only in one department or section. And my question on training opportunities was to answer if there is or not so they may need more training, but preparedness to response for internal fire disasters was not good which implicates that even where fire distinguishers are available employees are not trained for using it, this was found by interview questions.

Conclusions

The findings of the present study indicated overall satisfactory managerial practices of administrators of IMTH. These findings showed that all dimensions of managerial practices, including managerial functions and elements of management were good. The association between them indicates that the administrators of IMTH consider managerial practices as factors that can significantly contribute to their general management. However, there are some variables within the dimensions that were not good, and include: employees' preparedness to response for internal fire disasters, the adequacy of health care workers, financing from other than government source and evaluation of the satisfaction rate of customers. This refers the need for concentration on these variables and enhancing specific aspects related to them. Health Policymakers have to give hospitals higher levels of autonomy in managing, including financial budgeting, and human resource management.

Abbreviations:

WHO: World Health Organization

IMTH: Ibrahim Malik Teaching Hospital

SPSS: Statistical Package for Social Science

TUMS Tehran University of Medical Science

GHMS Global Hospital Management Survey

Competing Interests:

The author declares that there is no conflict of interest with other people or organizations.

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