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"The Impact of Managerial Education on the Importance and Competence of a Job – A Study about the Perceptions of Physician Executives in the Hospitals in Jordan"

NASSER ALI AHMED ALAKHRAM
Faculty of Public Health and Health Informatics, Department of Health Information Management and Technology, Umm Al Qura University, Makkah Al Mukarrama, Saudi Arabia
Email: alakhram@yahoo.com
Tel: +966541837954

TABREZ UZ ZAMAN
Faculty of Public Health and Health Informatics, Department of Health Information Management and Technology, Umm Al Qura University, Makkah Al Mukarrama, Saudi Arabia
Email: zaman.tabrez@gmail.com
Tel: +966549425774

Abstract

The need for an effective management to encounter the emerging problems in a hospital requires well - qualified cadre to ensure continued work progress. An education or training in management will influence their roles and skills in the job and increase their productivity. This study aims to assess the perception of physicians working in management positions and the impact of managerial education on the importance and competence of their jobs. This study was conducted in Jordan. It included a total of 75 hospitals which employed about 235 physician executives. Using Linda Roamer method, 280 surveys were distributed out of which 160 (57.14%) were returned. The questionnaire was adopted and used from the one prepared by Pavett and Law which relates to the work of Mintzberg and Katz. Analysis of managerial roles in term of importance allocated to it as well as the perception of respondents of their competence showed that overall respondents viewed their roles as important. On the scale of 1 to 5 the widest gap between importance and competence in the study sample scored 4.4 on entrepreneur. However, the mean scores for competence in the overall sample were 3.7. This observed pattern was consistent even where mean scores were compared by sectors. The widest gap and the narrowest gaps between importance and competence were in Jordan University Hospital and Royal Medical Services respectively. The educational training in management has a significant role in increasing the awareness of physician executives to confront the managerial problems and challenges. This training affected their roles and skills in the job.

Key Words: *Management Positions, Perception, Roles and Skills, Importance and Competence.*

Introduction

The hospital is one of the most organized sectors which are rendering services to the mankind in all parts of the world. It is essential that this entity employs efficient and skilled personnel to effectively manage the health care institution in a rapidly changing environment. Health services have become indispensable for the individual and society at large. The technological progress brought new and complicated specializations which increased the services offered to patients (Cochran, Kaplan, Nesse 2014). Therefore, it became

imperative to have an effective management to encounter the emerging problems, and recruit well qualified cadre, which would ensure work progress. The management of the hospitals in developing countries is usually occupied by untrained personnel, those with minimum level as a prerequisite. This fact is true for high level positions as well as low level positions (Busari, 2013).

This study aims to provide basic information about this situation in Jordan. The skills and knowledge coupled with managerial responsibilities of a physician cannot be found simply in any classic medical discipline curriculum, and very few physicians are formally trained in management (Hava, 1989 and David 1991). Several physicians working in hospital management involved admitted that they did not receive any type of management education. They added that most of their concentration was on medical sciences. They preferred to read a book about medicine, rather than reading a book about management. This in turn will not qualify them to be professional managers. From management point of view, an individual in a top administrative position tends to have good conceptual skills about management as compared to lower management positions (Rakish, 1994). However, the expected growth of the organization or hospital in the future makes this fact essential (Linda, 1996). The purpose of this study was to describe the hospital management from the perspective of a physician and to find out how managerial education can influence the roles and skills of physician executives.

Literature Review

The study of Pihlainen , Kivinen , Lammintakanen (2016) showed the uniqueness of leadership and management competence of managers and health-care leaders principally in a hospital environment of nursing and physician managers. The assessment of the competence was performed on the basis of their knowledge, attitudes, skills, and abilities which help them to perform leadership and management tasks. Another study by Busari (2013) revealed that there has been a paradigm shift in the undergraduate and postgraduate training programs in medical science to increase their essential leadership and managerial skills to deliver effectively. It also highlights the challenges faced by the physicians working as managers in clinical practice.

The study by Slipicevic and Masic (2012) brought to light the complexity of a health care organization. They stressed upon the finding that the managers must be competent and accustomed with health care problems. Education as well as training is often beneficial for the managers in the field of assessment, identification, and analysis and a necessary prerequisite for a holistic development of managers. They used the Kolb's model, one of the fundamental tools to define a health manager's profile. The necessity for knowledge in certain core health management areas coupled with the ability to master breakthrough management competencies has been underlined to be the foremost requirements. Of course, it needs gradual improvement and up gradation.

A study by Stoller and James (2008) showed the competencies required by the physician leaders in terms of programs which are sponsored by healthcare institutions. Some of the core competency domains in leadership were put forward such as knowledge and technical skills, knowledge of the industry, problem solving abilities, emotional intelligence, communication and a conviction for learning life-long. But the paper called for assessing the effectiveness and impact of such programs for developing leaders and boosting organizational needs.

Linda (1996) conducted a study on managers working in the middle level in severe care hospitals in England. The sample size was 632 and the rate of response was approximately 31 percent (n=196) of all the likely respondents. The purpose of that study was to identify roles and skills in which middle level managers are expected to be competent. It was found that their competence rate was radically below the importance of the work perception for seven of the eleven roles. For two other roles, figurehead and spokesperson, the perceived competence of a manager was superior to his perceived importance. While for others, technical expert and disseminator, there was no noteworthy variation between importance and

competence. The following skills; operation, communications, interpersonal relations, strategic assessment and financial control had a lower perceived competence than perceived importance.

Stephen J. and Charles M. conducted a survey to assess hospital medical staff governance and leadership characteristics. It was found that the skills that participating chiefs of staff deemed most important to administrative success. These included listening, being objective, communicating, being able to make decisions, facilitating an exchange of ideas, running meetings, and being able to work under stress.

However, self-reported greatest strengths and greatest weaknesses identified by participating chiefs of staff with regard to their own administrative abilities. Greatest strengths include being a good listener, being the team player, and being confident. Greatest weaknesses include being reactive, hesitant, and a talker (Stephen, Charles 1994).

Another study conducted by Edward (1996) on 1650 administrators engaged by 82 hospitals in South Carolina. The rate of response was approximately fifty-six percent (n = 916). This study aimed to examine the distribution of informational, decisional, interpersonal, and treatment roles among the clinical, administrative and executive directors. It was established that executive directors presume responsibility on behalf of the organization and its relations with the external environment. Those in administrative and clinical position assume more accountability for treatment and interpersonal roles.

Physicians in general and particularly, those who are in hospital management positions play an important role in developing service strategy. They also introduce systems which generate efficiency and improves quality in health care delivery in their provident units and in the hospital overall (Alan 1993). Several studies identified certain roles and skills that must be possessed by physician executives or managers to be able to deal with the managerial works and their problems effectively, particularly the turbulent era and relations became more complex and difficult (Beaufort 1980).

Physicians usually deal with patients, their relatives, medical colleagues along with other health service managers and staff from the healthcare organizations. To improve these relationships, physicians need to acquire skills for people management (Frada 1990). Very few physicians are formally trained in management (Hava 1989). The skills and knowledge connected with managerial tasks of a physician cannot be found typically in a medical college curriculum nor are aspirant physician executives enlightened with proper career consultancy to help in management (Eugene 1997). In order to correlate the competence of physician to managing hospitals, the determinants of the competence had been divided into four categories. These categories included personal characteristics, positional characteristics, the perception of physicians for their managerial roles and hospital characteristics.

A study done by Hava (1989) shows that that the median age of physician who were managers was 42 years while another study by Carol et al (1989) found that the physician managers had an average age of 54 years. Sex also represents one of the personal characteristics of the physician in management positions. Where Carol et al. (1989) found that 95 percent of the physician managers were male and only 5 percent were females. Another study found that 94 percent of the president of medical staff were male and only 6 percent were female (Guvence 1991). Among the personal characteristics that affect competence in management is the experience of physicians who were occupied in a management or administrative position.

Hava et al. (1989) noted that physicians who are engaged in a management or executive position were occupying these positions for at least 4 years while Carol et al. (1989) found that physician has been practicing for over 16 years and in their current permanent managerial position for more than 5 years (Carol 1989). The previous administrative positions and career paths for the physician executives were studied in a survey conducted in USA in 1986. It was found that 52 percent of survey respondents reported having occupied administrative position for 20 years or more; another 31.8 percent have been administrators for 10

to 19 years; 14.7 percent for 10 to 14 years, and 17.1 percent for 15 to 19 years; only 16.3 percent of the survey sample had been in administrative position for less than 10 years. No respondents with fewer than 5 years administrative experience had been reported (David 1991).

There are always some prerequisites and requirements for every position, there are some identified which act as a cornerstone to occupy it. These requirements identified by personal management according to the job description and its specification. Several studies found that the most frequently held position by physician's executives is chief executive officers, president of medical staff, vice president, hospital administrator's medical director and department head.

Guvence et al. (1991) conducted a study to examine how hospital administrators and medical staff presidents perceive the president's role. It was found that 166 (47.4%) of them occupied hospital administrators while 127 (36.3%) of them were occupied as president. Among other positional characteristics, that plays a basic role in the competence of physician executive to be effective in this position is the continuing education programs in management topics. Several studies noted the importance of formal managerial training for a physician in general and particularly who these are in management positions.

Carol et al. conducted a study to illustrate and examine the physicians' profession who were managers in their hospitals. This study found that about 83 percent of the physicians under the study acquired some kind of management education; only 61 percent had the feeling that it had been helpful in reaching to their current positions. The respondents who received formal training in management, 78 percent took part in ongoing education programs. Other managerial training types were composed of graduate courses in university-based programs in management or business programs and a master's degree in business administration or public health (Carol 1989).

A panel survey of 65 leading hospital in the United States was conducted to assess hospital medical staff governance and leadership characteristics. It was found that only one head of the hospital in all of the participating hospitals held a graduate degree in management, although about 10 percent of the heads reported that they were pursuing such a degree. Involvement in continuing education for management skill development was also modest; heads of the hospitals in the study participated in a median of 30 hours per year of management-related continuing education during the year prior to the survey (Stephen 1994).

Other studies also emphasize on the management training for junior physicians and clinical directors that is because the physicians have a great influence on the hospital's decisions. (Valerie 1997, Karin 1996, John 1997, Robert 1995, Lenora 1989, Anthony 1996). After reviewing several studies, we found that most studies tried to advocate the need to merge clinical practice with management education in order to benefit the management executives. The present study is aimed to find out how managerial education affects the performance and competency of the physician executives.

Research Questions

This study aims to assess the perception of physicians working in management positions and the impact of managerial education on the importance and competence of their jobs.

Methodology

This study was conducted in Jordan. It included a total of 75 hospitals which employed about 235 physician executives. Using Linda Roamer method, 280 surveys were distributed out of which 160 (57.14%) were returned. The questionnaires were reviewed to ensure that only those completed by physician executives or physician managers were included in the analysis. Using this criterion, 18 of the surveys had to be excluded. After exclusion, the data from 142 respondents were used in the final analysis (Table 1).The data

collection instrument consisted of self-administrated questionnaire containing two sections. The first section contained data and relevant background information about personal, position, and hospital characteristics. The second section contained the job roles and skills questionnaire, which assessed physician executives' competence. The questionnaire was adopted and used from the one prepared by Pavett and Law (1985) and was related to the work of Mintzberg and Katz. The scale of response ranged from one (low) to five (high) for both competence and importance ratings. The physicians were informed that contribution to the study was intentional and information would be handled in a strictly confidential manner. Consent was taken for publishing the findings of the study for research purposes only.

Study Variables

1. **Personal characteristics:** In this study the personal characteristics had been divided into gender, age, level of education and experience.
2. **Positional characteristics.** It included positions such as general manager, hospital administrator, medical director, department heads and division heads, outpatient clinics director etc as well as number of continuing education programs attended in management and other topics.
3. **Hospital characteristics:** It included two type of hospitals, forms of ownership, bed capacity and governance. Governmental hospitals are the ones owned and administrated by the Ministry of Health and private hospitals are owned and administered by the private sector. Military hospitals are owned and administrated by the Royal medical services and Jordan University hospital is owned and administrated by the Jordan University as an independent entity.
4. **Perception of physician executive for their managerial roles and managerial skills.**
   Role: According to Mintzberg definition, role is defined as "a structured behavioral set belonging to an exclusive position or office"(Frada, 1990).
   Skill: According to Katz definition, skill is defined as "a developed capacity and it can also be not inherited, and it is exhibited by one's performance"(Frada, 1990).
5. **Success of the hospital:** It is defined by the achievement of goals, and how it was measured (Beaufrot, 1998 and Nancy, 1994).

After collecting and compiling the data, it was coded and entered into the SPSS program. This program was used for calculation of mean value, standard deviation, and the t-value, for each, of the role and skill rating in general and each sector individually. It was also used to check the relationship among characteristics of the respondents which includes personal, positional, and hospital characteristics with the rating of competence and importance. The outcome of each characteristic for each role and skill was calculated. The dichotomous characteristics was calculated using T-test (e.g., Gender), ANOVA was applied for variables that were multi-chotomous (e.g., position), and multiple linear regression was utilized for those characteristics which were continuous (e. g. age, experience).

Results

The results of this study have been divided into five sections that represent Ministry of Health sector sub-sample, Private Sector sub-sample, Royal Medical Services and Jordan University Hospital. Ministry of Health Sector represents the largest portion; in contrast the smallest portion was Jordanian University hospital as independent sector.

Most of the respondents were males (95.8%), and the largest proportion (48.91%) was in (M.O.H.) while the smallest proportion (5.9%) was in (J.U.H). More than half of the respondents (53.8%) were between the ages of 40 and 49 year old with the median at 45 years. Fifty-one percent of respondents were employees in (M.O.H.) and (3.9%) were in (J.U.H). The majority were medicine specialists (91.6%). About half of them were in (M.O.H.) and (7.6%) were in (J.U.H). They had been in their current position for five years or less (49.2%) with 5 years median experience; thirty-eight percent of them were in (M.O.H.) while (2.8%) were in (J.U.H).

Table 1: Number of hospital according to health sectors in Jordan.

Sector	No. of hospitals	%	No. of beds	%
M.O.H	22	29.3	3207	39.5
R.M.S	9	12	1787	22
J.U.H	1	1.3	506	6.2
P.Hs	43	57.4	2629	32.3
Total	75	100	8129	100

H.O.M. : Ministry of Health Hospitals
R.M.S. : Royal Medical Services Hospitals
J.U.H : Jordan University Hospital
P.Hs : Private hospitals

One-half and more of respondents (54.5%) were in middle - level managers or department heads. Forty-seven percent of them were in (M.O.H.), while only (6.4%) were in (J.U.H). The vast majority (95.1%) of respondents had medical practice experience before their current position. Forty-nine percent of them were in (M.O.H.) however, (6.6%) were in (J.U.H). While (14%) of respondents surveyed had some management education. Two out of twenty had a master degree in a hospital administration, and others had undertaken management training programs. Seventy-five percent of them were in (M.O.H.) and other (25%) were in (P.Hs). More than one-third (42%) of respondents were supervising or receiving reports from 30 persons or even more. Forty percent of them were in (M.O.H.) and (8.3%) were in (J.U.H).

Table 2: Response Rate according to each sector.

Sector	No. of hospitals included	%	QD*	Return	%
M.O.H	19	28.8	125	75	26.7
R.M.S	7	10.6	56	29	10.3
J.U.H	1	1.5	16	10	3.57
P.Hs	39	59.1	83	46	16.4
Total	66	100	280	160	57.2

*QD : Questionnaire distributed
M.O.H.: Ministry of health hospitals
R.M.S.: Royal medical services hospitals
J.U.H: Jordan university hospital
P. Hs: private hospitals

Table 3: Positional Characteristics

Variable	Total Sample		M.O.H		P.S.		R.M.S		J.U.H	
	NO	%	NO	%	NO	%	NO	%	NO	%
Positional characteristics-Position										
a. Hospital manager	29	20.3	18	26.5	9	25	2	6.9	0	0
b. Medical director	13	6.1	1	1.5	8	22.2	4	13.8	0	0
c. Department head	78	54.5	37	54.4	14	38.9	22	75.9	5	50
d. Division head	23	16.1	12	17.6	5	13.9	1	3.4	5	50
First position in current hospital										
a. Clinical	136	95.1	67	98.5	31	86.1	29	100	9	90
b. Management	7	4.9	1	1.5	5	13.9	0	0	1	10

A large variety of hospitals were represented in the survey. However, the most of respondent's surveyed worked in hospital had bed capacity between 100 to 250 beds. Fifty-nine percent of them worked in (M.O.H.) and (18.8%) worked in (P.S). On other hand (91.6%) of respondents worked for general hospitals, (50%) of them worked for (M.O.H) and (7.5%) worked for (J.U.H). The individuals worked mostly in public sector, and constituted (42.6%), while those who worked in private sector were (25.2%). However, (20.3%) of them worked in (R.M.S) and only (2.0%) worked in (J.U.H) teaching hospital as an independent sector (Table 3)

Table 4 : Demographic characteristics of respondents.

Variable	Total Sample		M.O.H		P.S		R.M.S		J.U.H	
	NO	%	NO	%	NO	%	NO	%	NO	%
Personal characteristics										
Gender										
Male	137	95.8	67	98.5	34	94.4	28	96.6	8	80
Female	6	4.2	1	1.5	2	2.5	1	3.4	2	20
Age										
<30	2	1.4	0	0	2	2.6	0	0	0	0
30 to 39	23	16.1	12	17.6	5	13.9	5	17.2	1	10
40 to 49	77	53.8	39	57.4	16	44.4	19	65.5	3	30
50 to 59	32	22.4	16	23.5	6	16.7	5	17.2	5	50
60 and over	7	4.9	1	1.5	5	13.9	0	0	1	10
Level of Education										
General practitioner	12	8.4	5	7.4	5	13.9	2	6.9	0	0
Specialist	131	91.6	63	92.6	31	86.1	27	93.1	10	100
No. of years in current hospital										
< 5 years	71	49.7	27	39.7	19	52.8	23	79.4	2	20
5 to 10 years	34	23.8	23	33.8	6	16.7	3	10.3	2	20
> 10 years	38	26.6	18	26.5	11	30.5	3	10.3	6	60

Analytical Results

Analysis of managerial roles in term of importance allocated to it as well as the perception of respondents of their competence showed that overall respondents viewed their roles as important. For example, on the scale of 1 to 5 the widest gap between importance and competence in the study sample scored 4.4 on entrepreneur. However, the mean scores for competence in the overall sample were 3.7. This observed pattern was consistent even where mean scores were compared by sectors. The widest gap between importance and competence was in Jordan University Hospital. The narrowest gap between importance and competence was in Royal Medical Services. Meanwhile, the narrowest gap between importance and competence in the study sample scored 4.2 on figurehead. However, mean scores for competence in the overall sample was 3.9. This observed pattern was consistent even where mean scores were compared by sectors. The narrowest gap between importance and competence was in Jordan University Hospital sub-sample. The widest gap between importance and competence was in Private Sector sub-sample (Tables 5,6).

Table 5: Roles, importance and competence scores compared (standard deviation).

Role	Total sample			M.O.H.S			P.S			R.M.S			J.U.H		
	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P
Disseminator (DM)	4.3 (.623)	3.9 (.774)	*	4.3 (.647)	3.92 (.719)	+	4.4 (.616)	3.9 (1.0)	+	4.2 (.552)	3.9 (.627)		4.2 (.708)	4.2 (.626)	
Disturbance handler (DH)	4.4 (.563)	4.1 (.698)	*	4.4 (.543)	4.2 (.644)	+	4.4 (.534)	4.1 (.876)	+	4.4 (.476)	4.2 (.530)		4.1 (.930)	3.8 (.777)	
Entrepreneur (E)	4.4 (.656)	3.7 (.847)	*	4.6 (.738)	3.8 (.844)	*	4.5 (.578)	3.8 (.954)	*	4.3 (.548)	3.7 (.747)	*	4.6 (.452)	3.4 (.717)	*
Figurehead (FH)	4.2 (.637)	3.9 (.748)	*	4.2 (.682)	4.0 (.759)	+	4.1 (.616)	3.7 (.830)	+	4.1 (.584)	3.9 (.662)		4.3 (.606)	4.2 (.558)	
Leader (LD)	4.4 (.501)	4.0 (.688)	*	4.4 (.555)	4.0 (.629)	*	4.5 (.461)	3.9 (.800)	*	4.5 (.434)	4.2 (.529)	+	4.5 (.386)	3.4 (.813)	*
Liaison (LN)	4.6 (1.17)	4.1 (.701)	*	4.7 (1.58)	4.2 (.640)	+	4.5 (.487)	4.0 (.869)	+	4.6 (.329)	4.2 (.565)	*	4.2 (.745)	3.5 (.502)	

Table 6: Roles, Importance and Competence scores compared (standard deviation)

Role	Total sample			M.O.H.S			P.S			R.M.S			J.U.H		
	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P
Monitor (M)	4.2 (.783)	3.6 (.859)	*	4.1 (.846)	3.5 (.857)	*	4.3 (.596)	3.5 (.788)	*	4.3 (.654)	3.7 (.857)	+	3.8 (1.13)	3.5 (1.17)	
Negotiator (N)	4.4 (.548)	4.1 (.706)	*	4.4 (.546)	4.2 (.590)	+	4.4 (.461)	4.0 (.859)	+	4.3 (.657)	4.1 (.674)		4.3 (.578)	3.9 (.920)	
Resource allocator (RA)	4.1 (.847)	3.5 (.848)	*	4.1 (.812)	3.6 (.877)	+	4.2 (.666)	3.8 (.669)	+	3.7 (1.16)	3.1 (.953)		4.3 (.674)	3.0 (.449)	*
Spokesperson (SP)	4.4 (.537)	4.0 (.766)	*	4.4 (.535)	4.1 (.740)	+	4.3 (.520)	3.9 (.942)	+	4.4 (.526)	4.0 (.637)	+	4.3 (.693)	4.0 (.522)	
Technical expert (TE)	4.4 (.540)	4.0 (.664)	*	4.3 (.575)	4.0 (.627)	+	4.4 (.517)	3.9 (.826)	+	4.4 (.522)	4.1 (.565)		4.3 (.488)	4.0 (.590)	

*P<0.00
+ P<0.01
Imp = Importance, Com = Competence

Managerial skills in term of importance and competence and the perception of respondents of their competence revealed that overall respondents viewed their skills as important. For example on the scale of 1 to 5 the widest gap between importance and competence in the study sample scored 4.3 on strategic assessment. However, mean scores for competence in the overall sample was 3.7. This observed pattern

was consistent even where mean scores were compared by sectors. The widest gap between importance and competence was in Jordan University Hospital sub-sample. The narrowest gap between importance and competence was in Ministry of Health sub-sample.

However, the narrowest gap between importance and competence in the study sample scored 4.3 on communication. While, mean scores for competence in the overall sample was 4. This observed pattern was consistent even where mean scores were compared by sectors. The narrowest gap between importance and competence was in Private Sector sub-sample. The widest gap between importance and competence was in Jordan University Hospital sub-sample (table 7).

Table 7: Skills importance and competence scores compared (standard deviation)

Role	Total sample			M.O.H.S			P.S			R.M.S			J.U.H		
	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P	Imp Mean	Com Mean	P
Communication	4.3 (.608)	4.0 (.778)	*	4.4 (.607)	4.0 (.730)	+	4.2 (.627)	3.9 (.701)	+	4.5 (.566)	4.0 (.759)	+	4.1 (.649)	3.7 (.843)	
Financial control	3.8 (1.17)	3.4 (1.14)	*	3.8 (1.14)	3.3 (1.14)	+	4.3 (.867)	3.7 (1.01)	+	3.8 (1.37)	3.3 (1.22)		2.9 (1.35)	2.7 (1.25)	
Interpersonal relations	4.3 (.578)	3.9 (.715)	*	4.3 (.597)	4.0 (.681)	+	4.3 (.462)	3.7 (.843)	*	4.3 (.486)	4.1 (.574)		3.9 (.949)	3.7 (.751)	
Operations	4.5 (.571)	4.0 (.705)	*	4.5 (.543)	4.1 (.668)	*	4.6 (.338)	4.0 (.864)	*	4.4 (.753)	3.9 (.605)	+	4.2 (.735)	4.0 (.652)	
Strategic assessment	4.3 (.617)	3.7 (.762)	*	4.3 (.680)	3.9 (.740)	*	4.4 (.473)	3.8 (.860)	*	4.2 (.637)	3.7 (.676)	+	4.3 (.573)	3.4 (.722)	

Tables (8,9) displays the effect of dichotomous variables win terms of the personal or positional characteristics. The males tend to give higher rating for competence in all managerial roles and skills. The liaison was statistically significant. Although there is no noteworthy pattern relationship amid any other characteristics and managerial roles and skills, the effect of educational level reveal that the specialists tend to give higher rating for competence in all managerial roles and skills. The liaison, monitor and interpersonal relation were statistically significant in the study sample.

Table 8: Mean competence ratings of respondents for managerial roles in their managerial positions for (total sample)

Characteristics	DM	DH	E	FH	LD	LN	M	N	RA	SP	TE
Gender											
Female	3.9	3.6	3.8	4.1	3.7	3.6	3.4	3.9	3.4	3.6	4.0
Male	3.9	4.0	3.7	3.9	4.0	4.0+	4.1	4.1	3.5	3.8	4.0
Education											
GP	3.8	4.1	3.3	3.5	3.7	3.6	2.9	3.7	3.1	3.7	3.7
Specialist	4.0	4.1	3.8	3.9	4.0	4.2*	3.6*	4.1	3.5	4.1	4.0
EPAIPY											
Management	4.2	4.3	4.2	4.2	4.2	4.3	3.8	4.1	3.9	4.2	4.0
Other	3.9	4.1	3.7*	3.9	3.9	4.1	3.5	4.1	3.4*	4.0	4.0
FPICH											
Clinical	3.9	4.1	3.7	3.9	4.0	4.1	3.5	4.1	3.5	4.0	4.0
Management	4.6*	4.4	4.5*	4.2	4.2	4.2	3.9	4.4	3.8	4.6	4.1

*P<0.01
+ P<0.05

-EPAIPY: Education Programs Attended in Previous Years, FPICH: First Position in Current Hospital. DM=Disseminator, DH=Disturbance Handler, E=Entrepreneur, FH=Figurehead, LD=Leader, LN=Liaison, M=Monitor, N=Negotiator, RA=Resource Allocator, SP = Spokesperson, and TE=Technical Expert.

Educational training in management in the study sample reveals that, the physician executives who underwent training in management tend to give themselves higher rating for competence in all managerial roles and skills. On the other hand, the managerial roles as entrepreneur, resource allocator, and some skills such as financial control, communication, strategic assessment and interpersonal relations were statistically significant (tables 8,9). Although there is no pattern, significant relationship among any other characteristics and managerial roles and skills, the effect of the first position in study sample showed how the physicians who were first appointed in the managerial positions gave themselves a higher rating for competence in all of managerial roles and skills. Whereas disseminator and entrepreneur as managerial roles and operations as managerial skills were statistically significant (tables 8,9). There is no pattern, significant relationship among any other characteristics and managerial roles and skills.

Table 9: Mean competence ratings of respondents for managerial skills in their managerial positions for (total sample)

Characteristics	Communication	Financial control	Interpersonal relation	Operation	Strategic assessment
Gender					
Female	3.9	3.2	3.5	3.9	3.6
Male	4.0	3.4	3.9	4.0	3.8
Education					
GP	3.6	3.2	3.5	3.7	3.5
Specialist	3.9	3.4	3.9^{+}	4.0	3.8
EPAIPY					
Management	4.3	4.2	4.2	4.2	4.1
Other	3.9^{+}	3.2*	3.8*	4.0	3.7*
FPICH					
Clinical	3.9	3.3	3.9	4.0	3.8
Management	4.2	4.5	4.3	4.6*	4.1

*P<0.01 and
+ P<0.05
EPAIPY : Education Programs Attended in Previous Years.
FPICH: First Position in Current Hospital.

Discussion

This study aimed to describe the perception of physician executives through the assessment of their competence in their managerial positions. The study results are consistent with previous studies with regards to demographic profile; gender, age, experience, and position of physicians. In order to be competent the managers must have the ability to pursue their goals, establish standards, divide and distribute the resources, assess their performance, manage resources and time constraints (Slipicevic and Masic, 2012). Analytical results showed that the difference between the competence and importance rating for skills and roles are marked. The mean importance rating for all respondents role items was 4.33 and it was significantly superior than the mean competence rating. While the mean importance rating for all respondents skills items was 4.32 and it was significantly higher than the mean competence rating. These findings indicate how important physician executives view management roles and skills and the need to increased management competence. The study of Pihlainen , Kivinen , Lammintakanen (2016) also showed

that the uniqueness of leadership and management competence of managers and health-care leaders principally in a hospital environment of nursing and physician managers. The assessment of the competence was performed on the basis of their knowledge, attitudes, skills, and abilities which help them to perform leadership and management tasks**.** Another study found out that when it comes to assessment of the category of managerial knowledge, the most lacking knowledge and skills were found to be analytical skills. Though they are well versed with technological developments in clinical practice but the study found that they could not figure out its importance in health management. Systematic measurement of the level of different competences with respect to the demands represents a factual boon of this study. This research therefore allows the recognition of principal areas in health management which calls for education and development to improve competencies and skills (Slipicevic and Masic, 2012).

'T' tests were used to qualify the relationships between each role and skill in dichotomous variables. Our study proved that the educational level of the physician executives, their education training in management as well as their first position in current hospital affected in some way their roles and skills of physician executives to confront the managerial problems and challenges. Studies revealed that there has been a paradigm shift in the undergraduate and postgraduate training programmes in medical science to increase their essential leadership and managerial skills to deliver effectively (Eugene, 1996 and Busari 2013).

Our results supported that the physician executives who had education training in management felt more competent than those executives who didn't undergo any education training**.** A study by Stoller (2008) showed the competencies required by the physician leaders in terms of programs which are sponsored by healthcare institutions. Some of the core competency domains in leadership were put forward such as knowledge and technical skills, knowledge of the industry, problem solving abilities, emotional intelligence, communication and a conviction for learning life-long. But the paper called for assessing the effectiveness and impact of such programs for developing leaders and boosting organizational needs.

They were competent in communication, as an entrepreneur, in financial control, in interpersonal relations, as a resource allocator and in strategic assessment. This finding is consistent with previous studies, particular in financial control, resource allocator and strategic assessment. They were promoted to the next higher managerial positions from clinical positions on the grounds of their sound clinical skills and inter-personal relations without adequate training for their latest position (Carol, 1989, Cochran, 2014).

Conclusion

The educational training in management has a significant role in increasing the awareness of physician executives to confront the managerial problems and challenges. This training affected their roles and skills in the job. They were competent in communication, as an entrepreneur, in financial control, in interpersonal relations, as a resource allocator and in strategic assessment.

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