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DEGREE AND TYPES OF CLINICAL LEADERSHIP BEHAVIORS AMONG  
MANAGEMENT AT JORDANIAN EDUCATIONAL HOSPITALS

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**Abstract**

**Background:** Effective managerial skills and attributes stand at the apex of any organizational operation. Skillful managerial competencies are even weightier in the profit-oriented business organizations whose main focus is on operation turnover and clients' satisfaction. Nevertheless, the healthcare sector, like the other business organizations, have presently focused on revenue generation, and clients' satisfaction comes as an inevitable add-on. The case is notable in Jordan. However, as researchers concentrate on exploring and understanding productive management features in business sectors, little investigations have been done in healthcare. Yet, the vital nature of the healthcare services in hospitals should have better leadership and supervision for the corresponding health care service delivery.

**Aim:** Based on the above exposition, there became a clear and urgent need to study the nature of clinical leadership exhibited in the Jordanian healthcare systems. Hence, this study sought to determine the type and level of leadership behaviors among the clinical leaders, and their impactful factors as perceived by the healthcare leaders at the Education hospitals in Jordan.

**Methods:** To understand the various leadership behaviors among healthcare management, a quantitative descriptive study was conducted by surveying 110 departmental leaders and the directors of education within the selected Education Hospitals in Jordan. The samples were randomly selected based on probabilistic concepts. Accordingly, the survey was conducted in two hospitals; King Abdullah University Hospital and Jordan University Hospital in Jordan. Thereafter, the collected data using the surveys were analyzed using the multiple variance analysis (MANOVA) of Hotelling's test and the descriptive statistics of SPSS, version 22.

**Results:** Based on the statistical analysis, this study observed that leadership behaviour in Jordanian educational hospitals is moderate ( $Mdn=2.35$ ,  $SD=0.55$ ). It was also observed that integration in clinical leadership ( $mean=3.36$ ,  $SD=1.34$ ), empathy in clinical leadership ( $mean=2.47$ ,  $SD=.58$ ) and innovation ( $mean=2.41$ ,  $SD=1.32$ ) were the leading leadership behaviors among the hospital managers. Moreover, MANOVA analysis showed that gender ( $p=.044$ ) and age ( $p<.001$ ) of the healthcare leaders have a statistically significant impact on the degree of clinical leadership (95% CI).

**Conclusion:** The clinical leadership in Jordan Educational hospitals is predominantly characterized by integration, empathy, and innovation. Moreover, the proficiency of clinical healthcare leadership and managerial skills within Jordan Educational Hospitals seem to fluctuate with the leaders' age and gender.

**Recommendation:** The clinical leaders at the various Jordanian educational hospitals need to seek ways of improving their clinical leadership skills, especially those that relate to the management of staff and the work environment.

### Introduction

Over a long period of time, studies have reported that the Jordanian Education Hospital has been characterized by satisfactory and quality service provision, which can be attributed to visionary and transformational leadership features (Al-Shalabi, 1999). Like the other profit-oriented organization that are responsive to consumers' demographic changes and preferences, the performance in clinical environment also rely on an updated leadership approach with the ability to meet clients' dynamic demands over time. As such, leadership at the clinical environment is crucial in enhancing proper healthcare service delivery and transparent management of resources for optimal service delivery. Nevertheless, it is undeniable that healthcare environment is characterized by sophisticated and complex activities, most of which require prompt and harmonized response from the clinical leadership and healthcare workers (Davidson, Elliott & Daly, 2006).

Many researchers and scholars have addressed the concept of clinical leadership, and it is evident that the complexity in healthcare environment require robust and competent leadership skills. As Salhani and Coulter (2009) express, clinical leaders need professional judgment and effective decision-making attributes to cope with the over-demanding healthcare environment. As such, productive leadership qualities critically matter in the management of healthcare service delivery. Such leaders need flexible administrative qualities that respond to the changing population demands including culture of the patients (Begun, Tornabeni & White, 2006; American Association of College of Nurses, 2003).

Boedigheimer and Gebbie (2001) indicated that hospitals, like other business organizations, require administrative leaders with competencies and ability to change hospital functions because of the different objectives behind their establishment, especially in educational hospitals that seek to achieve a high

level of quality of medical care, education and training of staff. Such leaders need adequate knowledge about the medical and nursing research as well as in the provision of primary healthcare services according to the community demands. Accordingly, clinical supervisors need sufficient awareness of positive leadership skills in order to promote productivity among the healthcare staff (Sims Jr, Faraj & Yun, 2009; Halit, Popper & Zakay).

This study sought to determine the degree of clinical leadership exhibited in the Jordanian educational hospitals, also assess whether the degree of clinical leadership behavior depends on the leaders' demographic variables by surveying clinical leaders at JordanEducational Hospital.

### **Literature review**

A literature search was conducted on three nursing journal databases; ProQuest, PubMed and CINAL using a combination of key various key terms for synthesis and appraisal. The key words included '*clinical leadership*' AND '*degree of leadership*', OR '*types of leadership behaviors*'. The most significant themes from the most relevant articles, in terms of topic coverage were then examined.

It is evident that clinical leadership and behavior is an area that is vastly researched, especially in the developed countries. Despite the extensive research, there is no single definition of leadership. According to Northouse. (2015), leadership refers to 'ability of the leader to persuade and influence individuals to carry out their duties and tasks that contribute to the common goal of the group.' Other researchers have considered leadership as the process of directing, guiding, influencing others' behaviors towards the completion of set organizational objectives (Arnold et al., 2004; Bernthal, 2005; Brooks, 2006; Caldwell et al., 2010). On the same note, Bondas (2006) indicates that the leaders have key roles to achieve in their organizations.

#### *Feature of effective clinical attributes*

Effective leadership, effected through social responsibility ensures a successful completion of the set organizational goals (Daft & Lane, 2008; Rubin & Farrell, 2009). Leaders possess different personality traits which are linked to their psychological structures. Accordingly, 'trait theory' has been used to explicate the psychological characters of leaders (Arnold et al., 2004 and Brooks (2006). Trait theory argues that every human being has inherent traits and attributes, which determine whether one would become a productive leader or not (Arnold et al., 2004). As such, the personality traits of leader determines the ability of one to become a leader (Brooks, 2006). Moreover, leadership capabilities are also explained by the theory of leadership styles, the theory of administrative network, the theory of the continuous line of leadership, and the theory of dimensions (Bernthal 2005).

According to American Hospital Association and American Medical Association (2015), effective leadership in healthcare organization should be

characterized by diverse skills, including; ability to make a decision, wisdom in planning and organization, courage to act, and ability to manage. In the same context, Clinical Leadership Competency Framework (CLCF) and Medical Leadership Competency Framework (MLCF) (2012) suggested seven behaviors of effective leadership in the healthcare service delivery (Figure 1).



**Figure 1:** Clinical Leadership Framework

*Leadership behaviors in clinical environment*

Several research researchers have investigated the concept of leadership in clinical environment. For instance, the study conducted by Silva et al. (2016) examined the frequency of leadership traits among the manager nurses within the clinical environment. The researchers also examined the association between the demographic feature of such leaders and the frequency of leadership traits based on correlational research design by surveying 84 nurse leaders from 4 different healthcare centers in São Paulo. The outcomes identified five different leadership features; enable others to act, inspiration and vision sharing, modelling the way, challenging others to work, encouragement of the heart and challenge the process. It was also confirmed that employment relationship and time of care depend on the practice of care. As such, clinical leadership is shown to be a dependent concept that is influenced by other factors.

Alloubani and Almatari (2014) conducted a systematic review to examine the nature of leadership work as exhibited by the hospital managers. The researchers also investigated the hospital managers’ perceptions about the significance of the training courses in hospitals. Accordingly, the researchers confirmed that the characteristics and behaviors of transformational leadership were positively associated with organizational outcomes such as teamwork. Moreover, transformational leadership processes have been found to promote followers of labor-oriented values and form the self-efficacy of their followers.

Abdrbo (2012) conducted a descriptive cross-sectional quantitative study to examine the leadership behaviors among the baccalaureate nursing students who have different training. The researchers also compared the leadership behaviors exhibited by the baccalaureate nursing students and the registered nurses. By using a self-administered questionnaires (Self-Assessment Leadership Instrument), the researcher reported a statistically significant differences in leadership behaviors between the baccalaureate nursing students and the registered nurses ( $p < .001$ ).

In another study, Shahin (2011) among the employees of King Faisal Specialist Hospital & Research Centre to examine their perception on how the hospital leaders relate with them. The researcher confirmed a significant difference of perception between leaders/managers and the employee workforce. While the leaders expressed preference for the team-based approach of transformational leadership style, the employees felt otherwise. The employees expressed that the leaders have failed to exhibit the transformational leadership styles due to inadequate employee representation and failure to consider employee views.

Study was done by (Al-Mailam, 2004) in Kuwait to determine whether employees working for a transformational leader perceive their leader to be more effective than did those the transformational leadership style was linked to high levels of leadership efficacy and that employees in private hospitals were more likely to perceive their leaders more transformational than employees in the public hospitals.

The last article is a research done by Janssen (2004) to investigate the leadership characteristics as exhibited by the hospital CEOs in Iowa, Holland. The researcher surveyed 116 leaders, and also examined that variables that impact their leadership styles. The findings showed that transformational leadership is impacted by extra effort, years of experience, duration of training, satisfaction, work relationship among the CEOs, and perceived effectiveness. Moreover, there is a weak relationship between the CEOs stated values as collectivist or individualist and their perceived leadership style.

### **Research Methodology**

Quantitative descriptive study design was employed examine the degree and types of leadership styles among the clinical leaders. Accordingly, data was collected using a research questionnaire adapted from Allam (2016) with 7 subsections about the various dimensions of clinical leadership behaviors. The questionnaire instrument measured the degree of clinical leadership on based on a specified scale; low degree of clinical leadership is 2.33 or less, medium is between 2.34 to 3.67, and high degree is 3.68 and above. The questionnaire was validated based face and content validity before confirming the reliability based on Cronbach's alpha (Table 1).

Henceforth, the questionnaires was administered to the randomly sampled 110 participants who were departmental leaders working in Jordanian Educational

hospitals (King Abdullah University Hospital and Jordan University Hospital). The outcome data was then analyzed multiple variance analysis (MANOVA) of Hotelling’s test and the descriptive statistics of SPSS, version 22.

Table 1. Reliability test showing Cronbach' Alpha and Person correlation

Variables	No of Items	Cronbach's alpha	Person correlation
The Adaptive Clinical Leadership	8	.90	<b>.60</b>
Empathy in Clinical Leadership	11	.91	<b>.55</b>
Clinical Leadership Inventory	10	.93	<b>.44</b>
Integrating in Clinical Leadership	8	.90	<b>.51</b>
Innovation	7	.89	<b>.67</b>
Clinical leader Services	6	.88	<b>.54</b>
Improving Services leadership	5	.90	<b>.43</b>

Based on the reliability test of the Cronbach' Alpha, all the items in the seven sections of the questionnaire earn excellent reliability (>.90) and hence the stronger internal consistency.

**Results and Discussion**

The descriptive statistical analysis shows the various attributes of the selected study participants in Table 2. There was male (63%) than female leaders (47%) in the selected educational hospitals. More than half of the participants were nurse leaders (55%). Regarding the level of management, 45% (n=45) were at the middle level management, and 45% (n=45) of the participants were between the age of 30 and 40 years.

Table 2. Participants’ demographic characteristics

Variable	Categories	N (%)	Mean	SD
<b>Gender</b>	Male	63 (63)	3.59	0.50
	Female	47 (47)	3.89	0.67
<b>Age</b>	<30	35 (35)	3.52	0.54
	30-40	45 (45)	3.85	0.49
	40-50	17 (17)	3.87	0.56
<b>Management level</b>	Top Management	40 (40)	3.54	0.87
	Middle Management	45 (45)	3.87	0.52
	Operational Management	25 (25)	3.78	0.52
<b>Experience</b>	<5 years	30 (30)	3.90	0.57
	5-10 years	40 (40)	3.85	0.58
	11-15 years	20 (20)	3.66	0.50
	>16 years	20 (20)	3.80	0.61
<b>Occupation</b>	Doctor	40 (40)	3.81	0.56
	Nurse	55 (55)	3.87	0.53
	Others	15 (25)	3.53	0.89

**Degree of clinical leadership behavior used in Jordanian Educational Hospital**

The descriptive statistics showed the degree of clinical leadership behavior

among the selected educational hospitals in Jordan. Overall clinical leadership behavior in Jordanian Educational hospitals was medium (mean=2.35, SD=0.55). The most exhibited leadership behaviors included the integrated clinical leadership (mean=3.36, SD=.1.34), followed by empathy (mean=2.47,SD=.58), innovation (mean=2.41,SD=1.32), and adaptive leadership (mean=2.39, SD=.61). Least exhibited leadership behavior among the Jordanian clinical leaders is service leadership (mean=1.78, SD=.71).

Table 3. Clinical leadership behavior among the clinical leaders

No	Items	Mean	SD	Rank	Agreement Degree
1	Integrating in Clinical Leadership	3.36	1.34	1	Medium
2	Empathy in Clinical Leadership	2.47	.58	2	Medium
3	Innovation	2.41	1.32	3	Medium
4	The Adaptive Clinical Leadership	2.39	.61	4	Medium
5	Clinical leader Services	2.07	1.05	5	Low
6	Clinical Leadership Inventory	1.99	.89	6	Low
7	Improving Services leadership	1.78	.71	7	Low
<b>Total Means</b>		<b>2.35</b>	<b>.55</b>		<b>Medium</b>

It is evident that the degree of management of clinical leadership behaviors was medium. From this observation, there is a likelihood that the nature of the health, typified in Jordan, sector may not be able to conduct clinical leadership behaviors effectively. Such level of leadership may thus fail to satisfactorily and professionally meet the client's demands. Leadership challenges is also reported in various other parts of the globe. For example, Ghiasipour et al. (2017) inadequate leadership skills can arise from diverse organizational features including human resources, staff empowerment, and level of motivation as well as external forces including socio-economic issues.

#### **Relationship between the leaders' demographic variables and degree of clinical leadership behavior**

To assess whether there exists any association between the named variables, the multiple variance analysis (MANOVA) using Hotelling's test was performed. Accordingly, the statistical outcomes showed that, among all independent variables, only gender ( $F=4.124$ ,  $p=.044$ ) and age ( $F=5.514$ ,  $p<.001$ ) of the leaders had statistically significant impact on the degree of clinical leadership behaviors.

Table 4. Association between the participants' demographic variables and the degree of clinical leadership behaviors

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Gender	5.909	1	5.909	4.124	<b>.044*</b>
Hotlling amount 66.059					
Age	135.182	1	135.182	5.514	<b>.000*</b>
61.025=Hotlling amount					
Management Level	.002	1	.002	.541	<b>.993</b>
30.580=Hotlling amount					
Experience	.199	1	.199	.139	<b>.710</b>
14.695=Hotlling amount					
Functional	1.127	1	.563	.393	<b>.675</b>
18.154=Hotlling amount					
Error	295.201	103	1.433		
Total	461.857	109			

\*\* Significant at level of ( $\alpha = 0.05$ )

The positive association between age and the degree of clinical leadership gives an idea that more productive leadership behaviors dawn with experience. This is true according to Budakand Özer (2018) who examined clinical leadership competencies among nurses in Turkey and observed that leadership quality is significantly affected by duration of working as leader. As such, it is evident that leaders gain more skills with age, and this correlates with the personal trait theory which reaffirms the quality of leadership improvement with age (Costa, Jr., & McCrae, 2006; Pervin, 1994). Indeed, age has been implicated as a significant factor in clinical leadership behavior and the amount of concurring literature evidence is vast (Goldenberg, 1990; Kondrat, 2001).

Some researchers have also noted that older leaders have better means tocontrolling emotions more than leaders of younger ages (George, 2000; Fariselli, Ghini & Freedman, 2008; Singh & Srivastava, 2012). On the same point, Kulkarni (2014) report that emotional intelligence is a weighty element in leadership. Further, older administratorspossess an advanced ability to plan, implement and control more than others (Singh & Srivastava, 2012).

Further, gender of the clinical leaders also confirmed significant impact of the degree of clinical leadership behaviors as evidenced in the Jordanian educational hospitals. This outcome is also evident across the literature articles and among researchers' ideologies. For instance, Rozier (1996) confirmed the significance of gender balance in modulating the nature and competence in nursing leadership. According to a study conducted by Herrera et al. (2012) gender determines egalitarianism and assertiveness within the organization. While many researchers have a significant association, other have confirmed no significant correlation. For instance, a study conducted by Alghamdi, Topp and AlYami (2018) to compare nurses' satisfaction and view on transformational leadership style as exhibited by selected nurse/leaders dyad reported no significant gender differences.

From the relationship shown above, it is evident that women leadership style differ with that of mean, and produce more productive performance. The



difference is attributed to two things. First, women easily overcome the hidden rejection of their authority as woman leaders, which contravenes the general perception that the leader is a man (Kossek & Buzzanell, 2018). Secondly, women are better in developing human relations in their organization.

Other previous leadership studies also confirmed that women's leadership style is the best method for future organizations, which depends heavily on the development of one team. This approach reflects the women's life strategy, which can be described as communion, and is characterized by a holistic approach to aspects of life encompassing the different roles of women. This strategy is of an altruistic nature for its interests and building the group (Al-Shamrani, 2013).

Further, Scheffe test was further conducted to examine the variance of degree of leadership behaviors based on the age of the leaders within the educational hospitals in Jordan. There are differences in the practice of health leadership behavior due to age variable for age categories 40 -50 years (Table 5).

Table 5. Scheffe test statistic

Age	Below 30	30- 40 years	40 –50 years
Less than 30	-	0.87	0.06*
30-less than 40 years.	-	-	0.08
40 – to less than 50 years.	-	-	-

### Conclusion

Despite the recent empirical evidence that attributed the clinical leadership in Jordanian Educational Hospitals with produce and effective leadership styles, this study reports medium leadership behavior among the selected educational hospitals. The level of leadership behaviors thus points towards precarious state for the future clinical and healthcare service delivery among the Jordanian educational hospital. Also, there are clues that work environment had a direct effect on the use of clinical leader behaviors of leaders. Moreover, it is also evident that degree of clinical leadership in Jordan education hospital highly depend on the age and gender of the leader. Indeed, the productive role of women in the management of healthcare units is hereby confirmed.

### Limitation and Recommendations

Although quantitative studies produce outcome is generalizable, the results from this study only give reliable meaning when applied to the educational healthcare institutions. Nevertheless, future studies need to explore healthcare workers' perceptions on the various leadership structures as exhibited by the leaders in Jordanian healthcare systems. On the same point, qualitative studies should be conducted to identify the exact factors that affect the performance of clinical leaders' administrative style in an interpretivist approach.

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