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The relationship between nursing leadership and patient satisfaction

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ABSTRACT

Effective nursing leadership in healthcare organizations improves healthcare quality and increases patient satisfaction. In the literature, patient satisfaction has been considered as an important indicator of high quality and effective healthcare service. To determine the relationship between ward-level leadership and patient satisfaction of nursing care in teaching hospitals of Iran University of Medical Sciences. In this cross-sectional study, the sample consisted of 34 head nurses, selected on the basis of census sampling as well as 102 staff nurses and 170 patients, selected by random sampling. The cohort was chosen from 34 wards, including 10 internal medicine wards, 15 general surgery wards, 4 emergency wards and 5 intensive care wards, associated with all teaching hospitals of Iran Medical Science University. Data were collected using the multifactor leadership questionnaire and patient satisfaction instrument. The findings revealed that 50% of the head nurses had a transactional leadership style, 29.4% of them had a transformational leadership style and remaining 20.6% had a passive-avoidant leadership style. No statistically significant relationship was found between the ward-level leadership and patient satisfaction with nursing care, but the highest mean score of patient satisfaction was found for wards under head nurses with a transformational style. Potential influence of transformational leadership may be directly dependent on the patients' views towards care providers as members of the health care team. It is recommended to conduct this study in a larger scale and using higher number of samples in other hospital settings.

Keywords: Head nurse, Iran, Leadership style, Nurse, Patients' satisfaction, Transformational leadership,.

INTRODUCTION

Nurses function as both leaders and managers in their organizations [1].They are professional leaders and irrespective of their management level and ranking, they constantly make functional decisions, which have serious consequences on the patients and organization [2]. Organizational success is directly related to the leadership method of the nurse managers [1,3].Within the recent two decades, two major leadership styles, including transactional leadership and transformational leadership, have been widely observed by the experts [4]. There is a shift from transactional leadership, as the most common leadership style, to transformational leadership, partly owing to the fact that transformational leadership is more dynamic and that makes it more suitable to be used in contemporary healthcare systems. In addition, healthcare settings with its continuous change as a main feature require managers who are capable of understanding the change process and utilising opportunities through appropriate leadership styles[2,5]. To have implemented that vision, the inspiring visions of transformational leaders are to be connected to strategies [6]. Having changed the framework for employees, transformational leadership takes place through an inspirational vision. Employees get inspired to rise above their own self-centeredness by a

transformational leader [7].It promotes team work, motivates and empowers staff and encourages their involvement in policy making. It promotes a positive practice environment, which leads to improved staff satisfaction, retention and patient satisfaction. The studies conducted in the Western countries have indicated that there are relationships between nursing leadership, nurse job satisfaction and patient outcome such as patient satisfaction[8,9].Effective nurse leaders ensure that appropriate staffing and other resources are in place to achieve safe care and optimal patient outcomes[9].However, a gap still exists in what is known about the association between nursing leadership and patient outcomes [9].Patient satisfaction of healthcare services is a significant indicator of the quality of care[10,11]. In this regard, studies performed over the last two decades suggest that patients' experiences are of great importance in the process of quality evaluation within the healthcare service [10].

Background

Nowadays, the use of transformational leadership style in the field of healthcare in general, and nursing in particular, has received more attention, because it improves job satisfaction, facilitates change process and increases organizational commitment and welfare among employees[12,13].International research has shown that nurse managers with transformational leadership style positively affect nurses' behaviour and patient satisfaction. This results in the creation of changes in the work place, as required, and facilitates interpersonal relationships within the organization[9,14,15,16]. In addition, experienced staff is retained as they feel supported at their workplace [9,14,15,16,17,18]. Studies performed on hospital and nurse managers' leadership styles in the past, in Iran, indicate the prevalence of an autocratic style [19,20,21].Currently, many nurse managers, including head nurses, have not completed recognised leadership programs. In the absence of such education they tend to copy the leadership currently dominant in hospitals[19]. It is worth mentioning that the main criteria for nurses' selection in most hospitals are factors such as work experience and skills in clinical jobs so, head nurses' leadership styles cannot satisfy patients in the present healthcare system[19,22]. In this research, the newer leadership style methods have been examined to assess patients' satisfaction within the healthcare system. It must be added that these leadership styles have not been examined in any previous studies related to the Iranian healthcare system. According to the findings of Memarian et al (2008), in Iran, new management theories and new technological facilities cannot fully provide a holistic leadership style to nurses. Apparently, the leadership training provided so far has not been lucid enough, and as a consequence, errors in judgement have occurred in the workplace. The study recommends effective leadership can result when the leader acts as a spiritual mentor to attain target goals not only in patient satisfaction, but also in all other aspects of the hospital environment [23].In Iran, few studies on determining the effect of leadership style on patient satisfaction have been conducted. In a study conducted in 2000, it was found that task oriented leadership is more influential on patient satisfaction than relationship oriented leadership [24]. Another study showed that Iranian nurses who considered their head nurses as task-oriented individuals had higher job satisfaction levels than those who had relationship-centred head nurses [19]. The present study was carried out to answer this question: 'Which leadership style is more correlated with patient satisfaction with the offered care services?'

MATERIALS AND METHODS

Design

This is a cross-sectional study in which the relationship between ward-level leadership and patient satisfaction of nursing care in teaching hospitals of Iran University of Medical Sciences was studied. The study was carried out between October2012 and May 2013.

Sample and setting

Five teaching hospitals under the authority of Iran University of Medical Sciences in Tehran, the capital of Iran were part of the study. Of the available 59 wards, 34 wards met the pre-set inclusion criteria.

The study sample consisted of 34 head nurses, selected based on census sampling, and 102 staff nurses and 170 patients selected by random sampling from teaching hospitals of the University. Inclusion criteria for the head nurses included having managerial experience for at least six months, a Bachelor of Science (BSc) degree and having worked in intensive care units (ICUs), cardiac care units (CCUs), emergency wards and surgery and internal medicine wards for at least 6 months. The patients overall criteria to participate in the study were being aged between 18 and 70 years, ability to communicate in Farsi and having the required physical, mental and psychological capacity.

The data related to the ward and head nurses' demographic information were collected from the head nurses themselves.

The paediatric ward, paediatric intensive care unit, neonatal intensive care unit, ICUs for adult patients with impaired consciousness, psychiatric ward and the dialysis ward did not meet the inclusion criteria and were excluded

from the study. Moreover, head nurses of two wards refused to participate in the study. In addition, head nurses with leadership experience of less than six months were also excluded from the study

Sampling process

After approval of the study by the research and ethical committee of Iran University of Medical Sciences and formal permission from the university and appropriate authorities at all hospitals, samples were chosen from 34 wards including ICU, CCU, internal medicine, general surgery and emergency wards associated to all teaching hospitals of Iran Medical Science University. Head nurses with at least six months managerial experience were selected based on simple sampling.

The dataset were collected from expert nurses with at least six month work experience in each ward and patients with at least 3 days (in the internal medicine, surgery, CCUs and ICUs) and 1 day (in the emergency wards) of hospitalization experience.

Data about leadership style of the head nurses and satisfaction with the nursing services in each ward were gathered from nurses and patients, respectively. To do so, the lists of included nurses and patients were prepared, and then 3 nurses and 5 patients were randomly selected from each ward (using table of random numbers). Ward-level leadership data was prepared from the 3 nurses of each studied ward also selected randomly (using table of random numbers). Data related to satisfaction with nursing care in each ward was collected from a list of patients admitted to the study wards. The researcher went to each ward to gather data for the study. It should be noted that if the selected nurses and patients were unwilling to participate further in the study, the next participants were selected randomly from the original list of eligible nurses and patients.

Data collection

To gather data, 3 questionnaires were used: the head nurses' demographic information, nurses' demographic information that included the multifactor leadership questionnaire (MLQ) of Avolio and Bass version 5 (2004)[25] and the patient satisfaction instrument (PSI).

The first questionnaire, designed by the researcher, was used to collect the head nurses' demographic information consisting of age, sex, marital status, years of experience, years in current position, management training courses and type of ward placement (i.e. internal medicine, general surgery, CCU, ICU or emergency).

In the second questionnaire, the first section was about the demographic characteristics of nurses (age, sex, marital status, work experience at nursing, work experience in the current ward and the type of ward placement) and the second section included the MLQ. Integrating items related to transformational, transactional and passive/avoidant leadership styles, the MLQ section of the questionnaire put the nurses participating in the study in a position to choose the items closer to the leadership style of their head nurse. The respondent answered 36 items using the five-choice-Likert scale. Each item in the MLQ is graded based on the Likert 5-grade scale from 'never' (0 scores) at one end of the scale to 'always' (4 scores) at the other end. Items 2, 6, 8, 9, 10, 13, 14,15, 18, 19, 21, 23, 25, 26, 29, 30, 31, 32, 34 and 36 were related to the characteristics of transformational leadership style, items 1, 4, 11, 16, 22, 24, 27 and 35 were related to the characteristics of transactional leadership style and items 3, 5, 7, 12, 17, 20, 28 and 33 were related to the characteristics of passive/ avoidant leadership style. Therefore, the range of scores given to items related to the characteristics of transformational leadership style was between 0 and 80, scores given to items related to the characteristics of transactional leadership style was between 0 and 32 and scores given to items related to the characteristics of passive/avoidant leadership style was between 0 and 32.

Based on the nurses' responses for each item in this questionnaire, a transactional, a transformational or a passive/avoidant leadership style was determined for each of the head nurses [26].

The basis to determine the leadership style of the head nurse was the total percentage of scores that were given by the nurses at the same department to each of the three items related to the three styles. Each of the three items that had the highest total percentage score would be considered the dominant leadership style of the head nurse [26]. Table 1 presents characteristics of each leadership style [17].

The third questionnaire included patients' demographic information and the PSI[27], based on Risser's work[28]carried out in 1975 toward offered care services. PSI involves 3 subscales including technical and professional care (7 items), trust (11 items) and instructions to the patients (7 items), where each item has 5 choices ranged from 'completely agree' to 'completely disagree'. The instrument includes negative and positive scores where the negative scores are calculated inversely. In this study, to measure the mean score of each subscale, the patients' scores were summed up and the total item scores related to satisfaction were divided by the number of

items. In other words, to work out the mean, the sum of scores out of all items has been divided by the number of items.

Reliability and validity

In this research, to ensure scientific validity of the MLQ, content validity technique was applied. Having had internal validity, multiple-forward translation method [29] got utilized to translate MLQ from the source language (English) into the target language (Persian). Two members translated each section; the two translations were compared and also joined as the most appropriately translated and culturally approved items by the main researcher.

The questionnaires were evaluated by 10 faculty members of the scientific board and the research committee of Iran Midwifery and Nursing faculty. After scientific approval of the instrument, the permission for its application was acquired. Test, re-test method was used to determine the reliability of MLQ. In this regard, the questionnaire was completed twice with a 14 day interval by 10 nurses selected randomly from the studied wards. Then, the correlation coefficient of two categories of data was calculated as 0.84. The nurses participating in this step (determining the reliability of the instrument) were excluded from the study.

The questionnaire for patient satisfaction with nursing services was translated to Farsi by Hajinezhadin 2006 in the Nursing and Midwifery Faculty of Iran Medical Sciences and in this study obtained the correlation coefficient for the reliability of satisfaction with nursing care scale as 0.90[30].

Ethical considerations

The Research and Ethics Committee of Iran University of Medical Sciences approved this research, the ethics approval number is P/794. Before commencing the project, the university, faculties and the hospital authorities, as well as the participants officially provided their consent to participate in the research. During all steps of the study, the participants were free to take part or leave the research and their anonymity was assured. Each of the participants signed informed consent forms.

Data analysis

Data analysis was conducted using descriptive statistics (mean, standard deviation and frequency) and one-way variance analysis test, using SPSS15 software package.

RESULTS

34 wards, including 10 internal medicine wards, 15 surgery wards, 4 emergency wards, 5 ICUs and CCUs.

Head nurses

Majority of participants were female (76.5 %),married (79.4 %) and more than half (67.6%) had worked for less than 5 years in the current position. Besides, majority of them (55.9 %) had passed nursing management educational courses. The age of half of them was >40 years and the average age of the subjects was 40.85 years.

Most head nurses had more than 15 years of nursing experience. Distribution of their wards was as follows: 29.4% were employed in the internal medicine ward, 44.1%in the general surgery ward,11.8% in the emergency ward, 14.7% in ICUs and CCUs.

Nurses

The majority (96.1 %) of nurses were female. More than half of them had 5 years or less nursing experience. In addition, work experience for most (91 %) of them in their current ward was 5 years or less (table 2).

Patients

More than half of the patients were male and 75 % of them were married. Only 17.1 % of the patients had college education and about half of them had been hospitalized for the first time (table 2). The leadership style findings showed that out of the 34 head nurses, 10 (29.4 %) had a transformational leadership style, 17 (50 %) had a transactional style and 7 (20.6 %) had a passive/avoidant leadership style (table 3). Variance analysis test showed that there was no relationship between the leadership style and patient satisfaction and there was no statistically significant correlation in patient satisfaction between wards with transformational and non-transformational leadership styles (table 3).

Table 1: Leadership measurement items

Leadership style	Characteristics	Examples of characteristics used in the questionnaire
Transformational	Idealized influence Attributed (IIA)	Instills pride in me for being associated with him/her
		Acts in ways that builds my respect for him
	Idealized influence (behavior)	Talks about their most important values and beliefs
		Considers the moral and ethical consequences of decisions
	Inspirational motivation (IM)	Talks optimistically about the future
		Talks enthusiastically about what needs to be accomplished
	Intellectual stimulation (IS)	Seeks differing perspectives when solving problems
		Gets me to look at problems from many different angles
	Individualized consideration (IC)	Considers me as having different needs, abilities, and aspirations from others
		Helps me to develop my strengths
Transactional	Contingent reward (CR)	Provides me with assistance in exchange for my efforts
		Expresses satisfaction when I meet expectations
	Management by exception-active (MBEA)	Focuses attention on irregularities, mistakes, exceptions, and deviations from standards
		Directs my attention toward failures to meet standards
Passive/avoidant	Management by exception-passive(MBEP)	Waits for things to go wrong before taking action
	Laissez-faire (LF)	Delays responding to urgent questions
		Avoids making decisions

Table 2: Frequency distribution of demographic characteristics of nurses and patients

Data	Status	Frequency	Percentage	Mean ± standard Deviation
Data (nurses**)**				
Sex	Female	98	96.1	
	Male	4	3.9	
	Total	102	100	
Age	≤25	24	23.5	30.42±6.63
	26-30	42	41.3	
	31-35	18	17.6	
	>35	18	17.6	
	Total	102	100	
Years of experience	≤5	58	56.9	12±6.24
	6-10	30	29.4	
	11-15	5	4.9	
	>15	9	8.8	
	Total	102	100	
Marital Status	Single	34	33.3	
	Married	68	66.7	
	Total	102	100	
Years in ward current	≤5	91	89.2	2.75±2.96
	6-10	9	8.8	
	>11	2	2	
	Total	102	100	
Nursing care method	Functional	10	29.4	
	Case method	20	58.8	
	Team work	4	11.8	
	Total	34	100	
Data (patients**)**				
Sex	Female	71	41.8	
	Male	99	58.2	
	Total	170	100	
Age	≤30	41	24.1	45.32±16.06
	31-40	28	16.5	
	41-50	35	20.6	
	>50	66	38.8	
	Total	170	100	
Marital Status	Single	49	28.8	
	Married	121	71.2	
	Total	170	100	
Level of education	Primary	61	35.9	
	Help	30	17.6	
	Diploma	50	29.4	
	University	29	17.1	
	Total	170	100	
Day length of stay	≤3	55	32.4	7.95±7.26
	4-7	52	30.6	
	8-11	29	17	
	>11	34	20	
	Total	170	100	
Hospitalizations	1	69	40.6	2.60±2.36

	2-3 ≥4 Total	70 31 170	41.2 18.2 100	
ward	internal medicine general surgery Intensive emergency	50 75 25 20 170	29.4 44.1 14.7 11.8 100	

Table 3: Mean and variance of patient satisfaction in nursing care services based on dominant leadership style in the unit.

Patient satisfaction Leadership style	Patient satisfaction		Variance analysis test results
	Mean	standard deviation	
Transformational leadership	3.52	0.63	F = 2.51 *P-value= 0.09
Transactional leadership	3.31	0.61	
Passive-avoidant leadership	3.29	0.37	
Overall satisfaction of the patient	3.37	0.58	

**The results of Scheffe test showed no significant difference between leadership style and patient's satisfaction.*

DISCUSSION

Application of transformational leadership style by the managers leads to nurses offering healthcare services of a higher quality and a higher patient satisfaction[2,5]. As a result, the managers can expand team spirit among their staff and motivate them for efficient and an enhanced performance. It means that application of transformational leadership style and paying attention to human interactions positively affects staff performance [20]. The findings of this research showed that out of 34 Iranian head nurses, only 10 (29.4 %) had a transformational leadership style, half of them had a transactional style while 7 (20.6 %) head nurses applied a passive/avoidant leadership style. In this regard, the study conducted by Raup (2008), 80% of managers had transformational leadership and 20% of managers had non-transformational style [17].The findings of Zaimi et al (2004)implied that the majority (79.8 %) of the nursing staff believed that their managers' leadership style was 'low task and low relationship leadership' [20].Studies in Western countries have indicated that transformational leadership has been the most frequently applied leadership style [8,31,32].The results show a low rate of implementation of transformational leadership style. Using this type of style requires the availability of suitable context in many different circumstances including power, knowledge and a proper organizational environment to benefit from an appropriate leadership style. The results suggest that in Iran, nursing managers are facing hurdles in the application of modern leadership styles probably due to the physician-oriented atmosphere prevailing in the community and the health service providers[33,34]. In addition, centralized management of hospitals [35]and the traditional culture of nurses' obedience [36] have created conditions that in most cases, decisions concerning the nursing profession are taken by non-nurse persons, and as a result, these decisions affect the advancement of the nursing profession[35]. Transformational leadership style of nurse managers has been proven to positively influence job satisfaction of the staff nurses [37]and nurse managers also play important roles in the development of a strong patient safety culture[38]. Holding courses of continuing education on transformational leadership style for head nurses in Iran is needed. A precious guide by an issue of *Nursing Leadership* is provided on improving leadership knowledge and skills, accompanied by an evaluation of the International Council of Nurses' (ICN) Leadership for Change (LFC^{TM}) programme as carried out in over 50 countries [39].Nurses, due to their knowledge, specialized status and numbers have been regarded in a wonderful position to affect the use of transformational strategies in many healthcare organizations all over the world [6].In addition, the findings of the current study showed that there was no significant relationship between leadership style (transformational and transactional) and patient satisfaction. However, the highest satisfaction level (3.52 ± 0.63) of the patients was reported in the wards whose head nurses applied a transformational leadership style. In comparison, the average patient satisfaction level in wards with transactional and passive/avoidant leadership styles were 3.31 ± 0.61 and 3.29 ± 0.37, respectively. In this regard, the results of few studies have shown that the leadership style has had no significant relationship with patients' satisfaction [17,40].As one of these studies had a small sample and the lowest quality rating [17].On the contrary, the results of many other studies have shown significant associations between leadership and increased patient satisfaction [8,14,41,42].The results of the Tadrisi study (2000) showed that there is a significant relationship between leadership style and patient satisfaction with nursing services; also, in this respect, task-oriented leadership style is more effective than communication-centred leadership. Although task-oriented leadership style led to performing higher amount of work in the organization, communication-centred leadership had more desired consequences: the output of work was more favourable and more efficient for the organization and its clients [24].Doran et al. (2004) found that within the transformational leadership style, nurses' job satisfaction levels were higher and the rate of turnover was rather lower. On the other hand, job satisfaction with many nurses in the wards ruled by 'exception-based management' was low. Their study also indicated that transactional leadership style promotes patients' satisfaction level [14]. This concurs with our study findings. The least patient satisfaction, in our

study, was found with a passive-avoidant leadership style. Finding no relationship between leadership style and patient satisfaction in the current study is probably due to few numbers of samples; this is also a limitation of this study. Also leadership style is a function of culture, both in specific health care settings and overall culture of a given region and country. Furthermore, performance and capability of nurses offering healthcare service may interfere with patients' satisfaction as well as come in the way of head nurses' leadership styles. In the teaching hospitals evaluated in this research, insufficient attention paid by the authorities to the consequences of the illnesses and application of nursing care standards created an environment which hindered head nurses to plan, organise and evaluate nurses' performances efficiently.

Study limitations

This study has several limitations. First, regarding the small number of head nurses, all of them were included in the study (census sampling). The small number of per ward respondents which was not adequate for generalizing the data to the population studied was one of the limitations. Future studies must be conducted in a variety of settings with too many diverse and randomly selected samples.

Conclusion and recommendations

In general, the findings of this research showed that there is no significant relationship between leadership style (in the nurses' perspective) and patient satisfaction with the offered healthcare services in the teaching hospitals in Iran. Nevertheless, the maximum mean patient satisfaction was reported in the wards whose head nurses applied a transformational style. Given that the ward-level leadership did not correlate with patient satisfaction, ward features and head nurses' demographics in this study; hospitals and healthcare providers are recommended to adopt reasonable principles and procedures such as rewarding head nurses for their activities to promote efficiency, establish regular evaluation of head nurses' performance, involve them in decision-making processes and encourage them to use their managerial creativity and innovation. Finally, considering the importance of nurses' role in the healthcare system, it is recommended to conduct this study in a larger scale and using higher number of samples in other hospital settings.

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