

The Leadership Styles of Head Nurses Working in the Training Hospitals Affiliated to Zanjan University of Medical Sciences in 2020

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Abstract

Background: The physical-mental health status of health care providers and patients can be influenced by the leadership styles of head nurses and health centers managers.

Objectives: The current study aimed to study the leadership styles of head nurses working in the training hospitals of Zanjan in 2020.

Methods: In the current descriptive study 346 nurses working in the training hospitals wards affiliated to Zanjan University of Medical Sciences participated through cluster random sampling. A tool including demographic and Multifactor Leadership Questionnaire was used to collect data. Data were analyzed using descriptive- inferential tests such as mean, standard deviation and analysis variance and LSD by SPSS software version 25.

Results: Head nurses adopted transformational (3.02+0.61), laissez-fair (2.94+0.92) and transactional (2.81+0.53) leadership styles, respectively. The relationship between the leadership styles and the type of hospitals and the wards was significant ($p < 0.05$). Bu Ali Sina Hospital had the highest percentage of using transformational and laissez-fair leadership styles and Ayat –Allah Mousavi Hospital had the highest percentage of using transactional leadership style as well. Concerning the wards, pediatric and neonatal wards used the most of the transformational leadership style and the highest percentage of using transactional and laissez-fair leadership styles was associated with psychiatric ward.

Conclusion: Due to the superiority of transactional leadership style over the laissez-fair leadership style, it can be said that head nurses give less freedom to the nurses working in their wards. Therefore, motivating head nurses to be innovative and further use of laissez –fair leadership style is recommended.

Keywords: leadership style, nurses, Zanjan

Introduction

Nurses, as the largest part of professional staff of the health system have extensive roles and responsibilities. Therefore, they need an organizational environment in which there is a sense of accountability, satisfaction, alertness and high accuracy [1]. Creating such an organizational

environment relies on the leadership style and social support of managers [2].

Leadership style refers to the ways in which a leader motivates his or her team to achieve goals that differ in terms of personality and behavioral perspectives of leader [3].

A particular leadership style does not fit all situations and the leaders can adopt various leadership styles in different situations. By adopting the right leadership style, managers can be effective in setting up communication, trust and respect between employees. On the contrary, choosing inappropriate leadership style will eventually lead to the employees' dissatisfaction and organizational failure [4,5].

The review of literature on this point demonstrates that different organizational factors and phenomena are influenced by leadership style. Available evidence suggests that leadership style has a positive and significant impact on nurses' self-efficacy, desire to work and job satisfaction and can lead to the increase of their self-efficacy and job satisfaction [6,7,9]. Studies show that the use of transformational leadership style by head nurses and managers is effective in reducing job stress and increasing nurses' clinical competence [10,11]. Studies by Rostami et al. (2014) indicate that there is a positive and significant relationship between leadership style and organizational culture and desire to work [7]. Usama et al. (2017) also inferred in their study that the leadership style adopted by nursing managers was effective in nurses' job satisfaction, work efficiency and quality of patient care [12].

limited studies have been conducted on the leadership styles used by head nurses in our country. A study by Sadeghi et al. (2016) in Hamedan showed that head nurses used pragmatic style more than the other leadership styles [10]. The results of studies show that nursing profession has a variety of leadership styles. In Hutchinson's study in Australia, nursing managers preferred transformational leadership style to pragmatic and laissez-fair style and used it more than the other ones [13]. Curtis's study in Northern Ireland also showed that head nurses used transformational leadership style more than the other styles. [14]. In developed countries such as Ireland and Australia, the process of transformational leadership development has been recognized as an effective part of the process and it conforms to the strategic goals of organizations. In these countries, the transformational leadership style has won organizational acceptance and has been placed on the billboards of management and leadership training programs for nursing managers and due to its amazing and beneficial

impacts on organizational variables, this style is frequently used in health care organizations [13,14].

Leadership styles are changed or modified if we understand the current situation. Due to the fact that limited studies have been conducted on the leadership styles of head nurses in Iran and considering that no study has been conducted on the leadership styles used by head nurses in the training hospitals of Zanjan University of Medical Sciences, the present study was conducted in 2020 and aimed to examine the leadership style of head nurses working in teaching hospitals affiliated to Zanjan University of Medical Sciences.

Methods

The current descriptive cross-sectional study conducted in 2020. Population of the study included all the nurses working in the training hospitals affiliated to Zanjan University of Medical Sciences (except operating room and clinical wards) with at least six months experience in the current ward.

Based on the results of the pilot study with $\alpha=2$ and $d=0.5$, test power of %80 at a significant level of %5, the sample size was calculated 282 which was considered 346 with a drop of %23 of the sample size.

$$n_0 = \frac{\left[Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \right]^2 (\sigma^2)}{d^2} = \frac{(1.96 + 0.84)^2 * (2)^2}{(0.5)^2} = 126$$

$$1.96 = z_{1-\frac{\alpha}{2}}, \quad 0.84 = z_{1-\beta}$$

$$n = \sqrt{k} . n_0 = \sqrt{5} \times 126 = 282$$

Parti pants of the study were required to have characteristics such as attending the current ward for at least 6 months and working in the internal , surgery, mental disorders wards and intensive care units other than (clinic and operating room). Sampling was done by both cluster and simple random methods. Hence, after gaining the license from the ethics committee of Zanjan University of Medical Sciences and submitting a letter of introduction to the managers of the hospitals under study, each of the selected hospitals was considered as a cluster. Then, based on the

number of obtained samples, and according to the number of nurses in each hospital, the number of samples is determined in proportion to the total number of nurses in that hospital.

Then, the samples were extracted from the list of nurses of each hospital through using a random number table and entered into the study. The objectives of the study were presented to the nurses participating in the study before they complete the questionnaire and they were assured that the information would be confidential. Moreover researcher informed participants, the questionnaire was used to determine nurses' views of their head nurses' leadership styles. Researcher attended the research environment daily in three shifts of morning, afternoon and night for 2 months (from 01.03.2020 to 01.05.2020) and distributed and collected the questionnaire. If the participants completed the questionnaires on the same day they would be taken otherwise due to the overcrowding of the ward they would be taken in the next shift.

The data collection tool was a questionnaire that consisted of two parts: demographic information and leadership style. Demographic factors included age, sex, education, work experience, marital status and position (Staff, shift manager, nurse). The second part of the questionnaire included questions associated with leadership style assessment.

Head nurses' leadership style was assessed using Multifactor Leadership Questionnaire (MLQ) tool. The tool, MLQ, which was first developed by Bass in 1995 had five subscales including idealistic intrusions, development-oriented supports, provocation of knowingness, conditional bonus, management based on exception. In 1997, Bass and Avolio revised the tool and changed it from five subscales to nine subscales such as, idealistic influence of the leader's characteristics, behavioral idealistic influence of the leader, inspirational motivation, provocation of knowingness, individual considerations, conditional bonus, management based on passive exception, management based on active exception, management based on non-interference. These nine subscales were categorized into three leadership styles including transformational (items 1 to 24), transactional (items 21 to 32), and laissez-faire (items 33 to 36).

The total number of items in this questionnaire is 36. Each item is rated from 1 (strongly agree) to 5 (strongly disagree). Similar to previous studies, in order to obtain the mean likert scores of each subscale in this study - the scores obtained in each subscale were added together and then divided into the number of questions in subscale. Obtaining a higher mean of each leadership style indicates that the leader or manager uses that leadership style more than the

other ones [15,16]. In a study by Kariminia et al. the validity of the MLQ questionnaire was evaluated and modified by using the Delphi method [15]. Kariminia et al. (2010) evaluated the internal reliability of the MLQ questionnaire and reported that Cronbach's alpha 0.95.

In the above study, the reliability of MLQ questionnaire was 0.9 using test-retest method. 10 faculty members of the School of Nursing and Midwifery, Zanzan University of Medical Sciences approved the face validity of the MLQ questionnaire in the present study. Using Cronbach's alpha, the internal reliability of the MLQ questionnaire in the current study was evaluated for the three subscales of transformational leadership style subscales, transactional leadership style and laissez-faire leadership style 0.797, 0.607 and 0.629, respectively and for the whole leadership style, it was 0.851.

With regard to the normality of the data, descriptive and inferential tests including mean, standard deviation, analysis of variance, LSD were used to analyze the data through SPSS software version 25. In statistical tests, the significance level of α was regarded as ≤ 0.05 . To comply with ethical considerations, the objectives of the research were orally stated to the participants before completing the questionnaire and informed consent was obtained from them before completing the questionnaire.

Results

In this study, out of 346 nurses participating in the study, 72.8% were female and 27.2% male, 85.1% of participants had a bachelor's degree, 9.5% had a master's degree and only 5.2% had a diploma. Among 346 participants, 81.8% were nurses. Also, 13% and 5.2% of the participants were staff and shift In charge, respectively (Table 1). Based on

the mean score of leadership styles, head nurses use a combination of three leadership styles: transformational, transactional and laissez-fair in

the wards under their management, but their use of transformational style is more than transactional and laissez-fair style (Table 2).

Table 1: Frequency distribution of some demographic characteristics of participants

Variables		Frequency	Percentage
Age	30< 30	224	64.8
	30-45	88	25.4
	45 >	34	9.8
Gender	Female	252	72.8
	Male	94	27.2
Marital status	Single	108	31.2
	Married	212	61.3
	Widowed and divorced	26	7.5
Education	Nursing diploma	18	5.2
	Bachelor	295	85.3
	Master	33	9.5
Work experience	10 years<	224	64.8
	10-20	88	25.4
	>20 years	34	9.8
Position	Nurse	283	81.8
	Shift incharge	45	13.0
	Staff	18	5.2

Table 2: Mean and standard deviation of leadership styles of head nurses working in training hospitals of Zanjan University of Medical Sciences

Leadership styles	Mean	Standard deviation	The least	The most
Transformational	3.02	0.61	1.70	4.35
Transactional	2.81	0.53	2.00	4.25
Laissez-fair	2.94	0.92	1.00	4.75

The results also showed that there was a significant relationship between leadership style and the type of hospital ($P<0.05$). The highest use of transformational leadership style was related to Bu Ali Sina Hospital (Khorramdareh), the highest use of transactional leadership style was related to Ayatollah Mousavi Hospital and the highest use of laissez-fair leadership style was related to Abhar

Relief Hospital (Table 3). There was also a significant relationship between leadership style and the type of ward ($P<0.05$). So that the highest percentage of using transformational leadership style was seen in pediatric and neonatal wards, and the highest percentage of using transactional and laissez-fair leadership styles was seen in psychiatrics ward (Table 4).

Table 3: Mean and standard deviation of different leadership styles of head nurses working in teaching hospitals of Zanjan University of Medical Sciences in terms of the type of hospitals

Hospitals	Ayat-alah Mousavi	Vali-e-Asr (AS)	Martyr Dr. Beheshti	Abhar Relief	Bu Ali Sina (Khorramdareh)	ANOVA		
leadershiop styles	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	df	F	P-value
Transformational style	0.62± 3.10	0.55 ± 2.82	0.57 ± 2.82	0.57 ± 3.30	0.54 ± 3.31	4	9.871	.001
Transactional style	0.60 ±2.92	0.52 ± 2.74	0.82 ± 2.72	0.93 ± 3.59	1.14 ± 3.65	4	1.937	.104
laissez-fair style	0.83 ± 2.84	0.74 ± 2.66	0.82 ± 2.72	0.93 ± 3.59	1.14 ± 3.65	4	16.286	.001

Table 4: Mean and standard deviation of different leadership styles of head nurses working in teaching hospitals of Zanjan University of Medical Sciences in terms of the type of wards

Type of wards Leadership style	Medical wards	Surgery wards	Psychiatric	Emergency	CCU .ICU NICU, Dialysis	Pediatric & Neonatal	ANOVA		
							df	F	P- value
Transformational style	2.98 ± 0.73	2.99 ± 0.53	3.02 ± 0.53	3.12 ± 0.55	2.91 ± 0.52	3.14 ± 0.73	5	2.100	.406
Transactional style	2.76 ± 0.52	2.74 ± 0.50	3.02 ± 0.53	2.74 ± 0.49	2.79 ± 0.50	2.90 ± 0.64	5	2.380	.038
laissez-fair style	2.72 ± 0.95	2.91 ± 0.78	3.15 ± 0.63	3.11 ± 0.91	3.05 ± 1.14	2.77 ± 1.06	5	2.194	.055

Discussion

The main aim of the current study was to examine the leadership styles of head nurses working in the training hospitals affiliated to Zanjan University of Medical Sciences in 2020. The results showed that the most leadership styles used by head nurses were transformational leadership style, transactional leadership style and laissez-fair leadership style, respectively. These results show that although head nurses use a combination of three leadership styles in the wards under their management. However, their use of transactional and laissez-fair leadership styles was less and the use of transformational style was higher.

In contrast to the findings of this study, Sadeghi et al. (2016) in a study on leadership style in Hamadan province hospitals found that head nurses utilize a transformational style less than transactional and laissez-fair. The explanation for this disparity could be attributed to variations of personality perspectives among nursing managers in Hamedan and Zanjan, as well as organizational culture disparities between the two hospitals, because leadership style is influenced by elements such as organizational culture and managers' personality perspectives [3,6]. In addition, contrary to the findings of this study, Saeedi et al. (2016) found that the majority of head nurses in public and private hospitals in Ahvaz used a relationship-oriented leadership style [17]. Furthermore, Rezaei (2015) who studied leadership style in Isfahan Social Security Hospital found that task-oriented leadership was the most commonly used leadership [18]. The difference between the results of these two studies with the present study can be attributed to the type of tool used. Because in the study of Saeedi et al. And Rezaei et al., the data were collected by Burdens and Metzcus leadership style questionnaire. It also appears that differences in organizational structure and culture between university and non-university hospitals can result in distinct leadership styles [6]. Similar to the present study, results of the study of Cope et al. in Australia and the study of Albagawi et al. in Saudi

Arabia are the same and they showed the use of transformational leadership style was more than the other styles [19,20]. Transformational leadership is one of the effective leadership styles for developing creativity and innovation in an organization, effectively empowering and motivating employees [21]. In most developed countries, the transformational leadership style has won organizational acceptance and has been placed on the billboards of management and leadership training programs for nursing managers and due to its amazing and beneficial impacts on organizational variables, this style is frequently used in health care organizations [22]. Although the prevalence of transformational leadership style in this study suggests that there is an attitude toward altering leadership styles in university hospitals, but such training programs on improving leadership styles for nursing managers are restricted in our country. The findings of this study revealed that from the participants' point of view, the laissez -fair leadership style was less frequently used by head nurses. This style of leadership underlines self-leading and is appropriate in tasks that do not need leading and we are confident that things are completed with minimal errors [23]. Moreover, less frequently use of this leadership style is due to the fact that the average of free and self-centered behaviors is low in this type of leadership. Nurses working in training hospitals in Zanjan province appear to have minimal freedom of action because managers in the laissez-fair leadership style, which is less popular among nurses, guide staff very little and offer employees as much independence as possible. In this leadership style, employees set goals, make suitable decisions , and solve problems using their creativity [24].Of course laissez-fair leadership style, requires that nurses have sufficient knowledge and skills, otherwise utilizing this type of leadership yields a lot of errors [23].

Conclusion

The findings of the study revealed that from the perspective of the participants, head nurses use transformational, laissez-fair, and transactional leadership style, respectively. Most nursing managers used transformational leadership style as their favorable style, but laissez-fair leadership style was used in only half of the wards. This means that nurses had limited freedom of action. This lack of flexibility may result in less innovation and prosperity in the health-care system. As a result, it is proposed that head nurses also utilize a laissez-fair style to develop creative motives in wards where nurses have appropriate knowledge and skills in patient care.

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Conflict of interest

There is no conflict of interests in publishing this article.

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