



Investigating the Level of Learning Motivation in Clinical Nurses of Mashhad University of Medical Sciences, Mashhad, Iran

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Abstract

Background: Nurses are important healthcare providers in providing high-quality health services. It is therefore recommended to measure their level of learning motivation towards achieving the goals of healthcare organizations. The present study aimed to determine the level of learning motivation in clinical nurses in health centers in Iran.

Materials and Methods: This quantitative descriptive research was conducted at hospitals affiliated to the Mashhad University of Medical Sciences in 2021. Sampling was done by the random categorical cluster sampling method. A total of 300 nurses were selected to complete the demographic information form and the learning motivation questionnaire made by the researchers. Data analysis was performed by SPSS software version 25.0 and descriptive and inferential statistical tests.

Results: Mean score of nurse's learning motivation was at the average level (104.6 ± 11.1). Female nurses (104.8 ± 11.4), head nurses (109.0 ± 2.7), married nurses (109.0 ± 11.8), evening shifts workers (107.0 ± 10.4), nurses with master degree (107.5 ± 10.0), nurses with a company employment status (105.2 ± 10.2), nurses with a monthly income more than living expenses (106.6 ± 11.5), and nurses with willingness to work in their current department (209.0 ± 21.9) had the highest motivation scores ($P < 0.05$). The Pearson correlation coefficient test showed that there was a significant relationship between motivation and work shifts per month ($r = 0.004$, $P < 0.05$). In other cases, no significant relationship was seen ($P > 0.05$).

Conclusion: Based on the results, nurses' learning motivation was at a moderate level and characteristics related to the profession (job position, work shift, employment status, financial situation, willingness to work), and individuals (gender, marital status, education level) had the highest means. Therefore, health system employers and managers should pay careful attention to these issues to encourage nurses participating in the in-service training courses.

Key Words: Clinical Nurses, Healthcare organization, Iran, Learning motivation, Survey.

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1- INTRODUCTION

Nurses constitute the majority of healthcare providers. They are responsible for delivering the required care with the expected high quality to promote and maintain patients' health (1). Improving nurses' competencies, including knowledge, skills, and attitudes, can lead to delivering high-quality care (2). Several factors contribute to the quality of care, including job description, nurse-patient ratio, availability of nurses, and clear organization policies. All of these are related to the motivation of nurses to learn for self-improvement which is an essential concept for healthcare providers (3-5). Motivations of healthcare workers can be defined as the extent an individual is willing to exert and maintain an effort towards achieving the goals of an organization, and the absence of motivation is related to nurse burnout and shortage (6). This poses a great concern for healthcare organizations (7).

Motivation is a significant part of nursing education and making a motivated healthcare organization need collaboration among all healthcare providers, developing effective motivation-based policies and motivational strategies (8, 9). The main dimensions of motivation are educational goals, academic failure, life experiences, social communication, student-teacher interactions, and opportunities for accountability (10). According to the review of the literature, motivation has been emphasized in areas of management, psychology, and education (10). Although the motivation of healthcare providers has been widely investigated due to its positive effects on their performance and quality of care, the motivations of healthcare providers are still under study (11). As nurses are important healthcare providers in providing health services. It is recommended to conduct further studies to measure nursing continuing education programs and their relation to motivation

toward learning to improve the quality of care of nurses (2). Based on the aforementioned evidence, this study was conducted with the aim of "investigating the level of learning motivation in clinical nurses in Mashhad University of Medical Sciences", Mashhad, Iran.

2- MATERIALS AND METHODS

2-1. Study design and population

This Quantitative descriptive research was conducted at five selected hospitals affiliated with Mashhad University of Medical Sciences (Emam Reza, Ghaem, Omid, Shahid Kamyab, and Shahid Hasheminejad) in Mashhad, Iran, from 6/6/2021 to 18/8/2021 after being approved by the Ethics Committee of Mashhad University of Medical Sciences. Mashhad University of Medical Sciences is the second oldest and largest university in Iran. The population of this research included clinical nurses employed in hospitals of Mashhad University of Medical Sciences, Mashhad, Iran.

Sampling was done by probability multi-step cluster categorical sampling method. All hospitals of Mashhad University of medical sciences were divided into two categories of big and middle according to their bed numbers. From both categories, some hospitals were selected randomly including two big and three middle ones (as clusters). All wards of selected hospitals were divided into two categories of intensive and general wards. From both categories, the relevant wards were divided into special, emergency, and ordinary wards. From each of them, the required number was selected in proportion to the volume. Questionnaires were distributed to all nurses of selected wards who fulfilled the inclusion criteria (**Figure 1**). A total of 300 male and female clinical nurses who worked at the clinical level, had at least six months of experience, with different levels of education including a bachelor's degree or higher, and who completed the

informed consent form to participate in the study were selected. The sample size was 300 people based on the calculation of learning motivation from the results of a pilot study on 30 people with a 95%

confidence interval (CI), and the formula for calculating the average in a limited community and taking into account the drop in the samples.

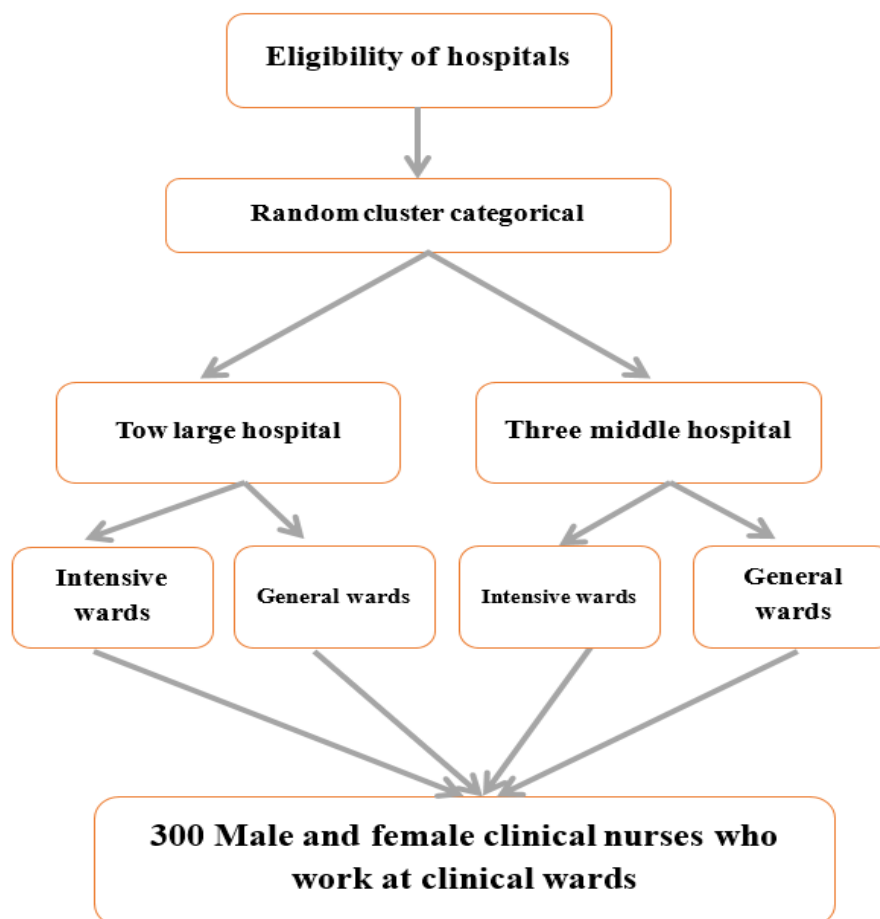


Fig.1: Sampling method.

2-2. Inclusion Criteria

- Male and female clinical nurses who worked at clinical wards of hospitals of Mashhad University of Medical Sciences in Iran;
- Who had at least six months of experience in nursing;
- Who had bachelor's degree or higher in nursing.

2-3. Exclusion criteria

- Unwillingness to participate in the study

- Having had a main stressful event in the past six months

2-4. Measuring tools

Data were collected using the demographic information form and the researcher-made learning motivation questionnaire. The demographic information form consisted of personal and job-related questions such as age, gender, and level of education, shift type, employment status, and duty per month, place of service, work experience, economic situation, and willingness to work in the relevant department, the

second workplace section, and number of work shifts. The researcher-made questionnaire contained 25 Likert-scale questions on the motivation to learn science in clinical nurses. Learning Motivation Questionnaire is a draft of the main questions, and the items of this questionnaire were written by reviewing extensive texts on the components and indicators of learning motivation. Its content validity was reviewed by seven faculty members of the School of Nursing and Midwifery and the reliability was evaluated by the internal consistency method by calculating Cronbach's alpha coefficient on a questionnaire completed by 30 clinical nurses with $\alpha = .825$.

2-5. Ethical considerations

The Institutional Review Board (IRB) at the University of Mashhad, college of nursing, approved the study to be conducted. The study protocol met both the global and the committee publication ethics (COPE) standards of respecting human subjects' rights. After obtaining informed consent, the purpose of the research was explained to eligible participants. The researchers assured participants that their data were kept private and safe during and after research. The code of ethics for this research was obtained from the ethical committee of the College of Nursing at Mashhad University (IR.MUMS.NURSE.REC.1400.038).

2-6. Data analysis

Data of the study were analyzed using descriptive (mean, standard deviation, and frequency distribution) and inferential (t-

test, Mann-Whitney, Chi-square test, Pearson correlation, coefficient, multiple regression, and ANOVA) statistics (12). Data analysis were performed with SPSS software version 25 and P-value less than 0.05 was considered statistically significant.

3- RESULTS

A total of 300 nurses completed the study. The demographic characteristics of participants were examined using descriptive indexes (mean and standard deviation) for quantitative variables and frequency percentage for qualitative variables (**Table 1**). The findings showed that the mean score of nurse's learning motivation is 104.6 ± 11.1 (**Table 2**). According to **Table 3**, female nurses (104.8 ± 11.4), head nurses (109.0 ± 2.7), married nurses (109.0 ± 11.8), evening shifts workers (107.0 ± 10.4), nurses with master degree (107.5 ± 10.0), nurses with company employment status (105.2 ± 10.2), nurses with monthly incomes more than living expenses (106.6 ± 11.5), and nurses willing to work in their current department (209.0 ± 21.9) had the highest motivation scores. The results of the statistical tests did not show any difference in the mean of learning motivation in terms of these variables ($p > .05$). The Pearson correlation coefficient test showed a significant relationship between the motivation and the shiftwork per month ($P = 0.004$, $r = -0.050$). In other cases, no significant relationship was seen ($P > 0.05$) (**Table 4**).

Table-1: Baseline characteristics of studied nurses (n=300).

Variables	Level	Number	(%)	95% CI
Age (year)	20-29	98	32.7	27.4 – 38.2
	30-39	156	52.0	46.2 – 57.8
	>40	46	15.3	11.5-19.9
Gender	Male	90	30.0	24.8 - 35.5
	Female	210	70.0	64.4 - 75.1
Level of education	Bachelor	287	95.7	92.7-97.6
	Master	13	4.3	2.3-7.3
Marital status	Single	81	27.0	22-32.4
	Married	210	70.0	64.4-75.1
	Divorced	1	0.3	0.01-1.8
	Widowed	8	2.7	1.16-5.19
Job position	Clinical Nurse	296	98.7	96.6-99.6
	Head of nurse	4	1.3	0.36-3.4
Workplace hospital	Imam Reza Hospital	96	32.0	26.7-37.6
	Ghaem Hospital	80	26.7	21.7-32
	Omid Hospital	24	8.0	5.2-11.6
	Shahid Hasheminejad Hospital	43	14.3	10.5-18.8
	Shahid Kamyab Hospital	57	19.0	14.7-23.9
Work experience	<5	98	32.7	27.4 – 38.3
	6-10	88	29.3	24.2 – 34.8
	11-15	75	25.0	20.2 – 30.3
	16-20	29	9.7	6.57 – 13.6
	21-25	6	2.0	0.74 – 4.3
	>26	4	1.3	0.36 – 3.38
Work shift	Morning	49	16.3	12.3 – 21
	Evening	16	5.3	3 – 8.5
	Night	45	15.0	11 – 19.5
	In circulation	190	63.3	57.6 – 68.8
Employment status	Temporary	62	20.7	16.2 – 25.7
	Contractual	93	31.0	25.8 – 36.5
	Company	30	10.0	6.8 – 13.9
	Permanent (Governmental)	115	38.3	32.8 – 44.1
		300	100	

95% CI: 95% confidence interval.

Table-2: Descriptive statistics of motivation scores of the studied nurses (n=300).

Variables	Number	Minimum	Maximum	Mean	SD	95% CI
Motivation	300	68.0	130.0	104.6	11.1	103.3-105.9

95% CI: 95% confidence interval, SD: Standard deviation.

Table-3: Relationship between motivation levels of the nurses studied by demographic variables.

Variables	Number	Mean	SD	Statistical result	
Gender	Male	90.0	104.1	10.6	*T=.5 df=298 p=.608
	Female	210.0	104.8	11.4	
Marital status	Single	81.0	104.0	12.3	**F=.8 df=2 p=.435
	Married	210.0	104.6	10.6	
	Widow	9.0	109.0	11.8	
Job position	Nurse	296.0	104.5	11.2	F=3.997 df=298 p=.423
	Head nurse	4.0	109.0	2.7	
Work Shift	Morning	49.0	102.9	11.7	F=1.09 df=3 p=.350
	Evening	16.0	107.0	10.4	
	Night	45.0	106.5	12.7	
	In circulation	190.0	104.3	10.6	
Education level	Bachelor	287.0	104.4	11.2	F=0.554 df=298 p=.324
	Master	13.0	107.5	10.0	
Employment status	Temporary	62.0	105.2	12.2	F=1.02 df=3 p=.380
	Contractual	93.0	102.9	9.9	
	By company	30.0	105.2	10.2	
	Permanent	115.0	105.4	11.7	
Economic situation	Monthly income more than expenses	23.0	106.6	11.5	F=0.793 df=2 p=.454
	Monthly income in line with expenses	153.0	104.9	10.7	
	Monthly income less than needed	124.0	103.8	11.6	
Willingness to work	Yes	169.0	105.4	11.1	F=2.99 df=2 p=.052
	Some	101.0	104.6	11.3	
	No	30.0	100.0	10.1	

* Independent sample t-test, **Onaway ANOVA. SD: Standard deviation, df: Degree of freedom.

Table-4: Pearson correlation coefficient between motivation levels and baseline characteristics.

Variables	Motivation		
	Pearson Correlation	P-value	Number
Age (year)	0.096	0.096	300
Duty per month (hour)	-0.054	0.355	300
Work experience (year)	0.074	0.201	300
Shiftwork per month (day)	-0.050	0.004	300

4- DISCUSSION

The purpose of this study was to investigate the level of learning motivation in clinical nurses at Mashhad University of Medical Sciences in Mashhad, Iran. Based

on the results, the level of learning motivation in the majority of participants was at a moderate level. The results of Markowich (1994) research confirm the results of the current study (13). In contrast, Heshmati Nabavi et al. (2013)

found that nurses had a low motivation to participate in learning and this introduces an important problem in continuing education programs (14). Among the factors affecting the nurses' motivation for participating in in-service training courses, the factors related to the profession (job position, work shifts, employment status, economic situation, willingness to work), and personal (gender, marital status, and education level) factors had the highest means. In this regard, the nurses' place of service was one of the factors related to high learning motivation. It can be said that overcrowding, shortage of nurses, and the high number of nurses' shifts in some units compared with other units resulted in nurses' lower motivation for participating in in-service training courses.

In the current study, head nurses had more motivation to participate in the in-service training courses than other nurses. It can be due to the fact that matrons, supervisors, and head nurses, due to their responsibilities, are required to have adequate and updated knowledge, be aware of all rules that have changed, and be accountable to the system. As a result, they are more likely to feel the need to participate in these courses to update their information (13). The results of studies by Sajjadnia et al. (2014), and Vali et al. (2015) confirm the present study results (15, 16). However, Ebadi et al. (2012) did not find any significant association between the factors related to the profession and personal characteristics and the nurses' motivation to learn (17). Furthermore, in the current study, there was a significant association between the learning motivation and nurses' employment status and their level of education, so that nurses employed temporarily or on a contract had participated in training courses due to the organizational factors more than those nurses employed officially. Also, by increasing the level of education, the

organizational factors had fewer effects on the nurses' motivation for participating in the training courses. One of the reasons for higher motivation in the nurses employed temporarily and those with a lower level of education can be that they are newcomers and have only recently started their jobs in the hospital and, therefore, want to adapt themselves to the hospital environment, strengthen their position, ensure their future career, gain their managers and head nurses' satisfaction, earn higher salaries and benefits, obtain more information and improve their abilities and self-esteem and self-confidence, increase their opportunities for promotion, etc. Thus, they are more motivated to participate in the training programs. However, nurses employed officially and those with higher levels of education usually have job security and feel that they have sufficient knowledge and experience. They also assume that the contents of these training courses are redundant. Therefore, they have a lower incentive to participate in in-service training programs. The results of studies by Vali et al. (2015) (16), and O'Connor et al. (1979) (18) are consistent with the present study. However, Ebadi et al. (2012) (17) found no significant associations between organizational factors and nurses' employment status and job experience. According to the results of the present study, there is a significant relationship between motivation and shiftwork hours per month, indicating that it was an important motivational factor from the nurses' perspective. Anbari et al. (2003) concluded that some factors related to learning motivation such as the time and place of work had great effects on the participants' motivation, which to some extent is in line with the findings of the current study (19).

4-1. Study Limitations

The present study had some limitations. One limitation is the cross-sectional design of this study, which did not provide cause

and effect inferences. Therefore, common relations found among the variables of this study could be examined in a prospective longitudinal study. Second, the results may not be representative of the entire health workers in Iran because of the geographical and cultural differences. Third, only a single method (i.e. a questionnaire) was used for data collection. The most important strength of the present study is that it is one of the few studies which examines the level of learning motivation in clinical nurses in health services in Iran.

5- CONCLUSION

The results of the present study show that the learning motivation in the majority of participants was at a moderate level, and this motivation was associated with professional and personal factors. It can be suggested to increase the studied nurses' motivation for participating in the training courses by making a proper educational needs assessment and paying careful attention to the nurses' educational needs for determining the contents of in-service training courses, determining the suitable time and place for providing training courses, encouraging the participating nurses, providing careful and continuous managers' supervision over the employees to participate in these courses, and using a proper and continuous system for monitoring and evaluating the quality of the in-service training courses provided for the nurses.

6- AUTHORS' CONTRIBUTIONS

Naeem al-shoely: Conceptualization, Methodology, Writing - Review & Editing, Supervision, Funding acquisition, Project administration, and Validation.

Amir Reza Saleh moghadam: Conceptualization, Methodology, Software, Resources, Data Curation, and Writing - Original Draft.

Seyed Reza Mazloom: Methodology, Data curation, Formal analysis, Investigation,

Writing - Review & Editing, Supervision, Validation, and Correspondence.

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8- CONFLICT OF INTEREST: None.

9- REFERENCES

1. Tafreshi, M.Z., Pazargadi, M. and Abed Saeedi, Z. (2007), "Nurses' perspectives on quality of nursing care: a qualitative study in Iran", *International Journal of Health Care Quality Assurance*, 20(4): 320-28.
2. Eslamian, J., M. Moeini, M. Soleimani, Challenges in nursing continuing education: A qualitative study. *Iranian journal of nursing and midwifery research*, 2015; 20(3): 378.
3. Berenson, R.A. T. Rice, Beyond measurement and reward: methods of motivating quality improvement and accountability. *Health services research*, 2015; 50: 2155-86.
4. Lartey, S., G. Cummings, and J. Profetto-McGrath, Interventions that promote retention of experienced registered nurses in health care settings: a systematic review. *Journal of nursing management*, 2014; 22(8): 1027-41.
5. Okello, D.R. and L. Gilson, Exploring the influence of trust relationships on motivation in the health sector: a systematic review. *Human resources for health*, 2015; 13(1): 1-18.
6. Vallant, S. and S. Neville, The relationship between student nurse and nurse

clinician: Impact on student learning. *Nursing Praxis in New Zealand*, 2006; 22(3): 23-34.

7. Campbell, S.M., M.O. Roland, S.A. Buetow, Defining quality of care. *Social science & medicine*, 2000; 51(11): 1611-25.
8. Chambers D, Wilson P, Thompson C, Harden M (2012) Social Network Analysis in Healthcare Settings: A Systematic Scoping Review. *PLoS ONE* 7(8): e41911.
9. Gleeson, H., Calderon, A., Swami, V., Deighton, J., Wolpert, M., & Edbrooke-Childs, J. Systematic review of approaches to using patient experience data for quality improvement in healthcare settings. *BMJ open*, 2016; 6(8): e011907.
10. Skinner, E.A. M.J. Belmont, Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of educational psychology*, 1993; 85(4): 571.
11. Cerasoli, C.P., J.M. Nicklin, M.T. Ford, Intrinsic motivation and extrinsic incentives jointly predict performance: a 40-year meta-analysis. *Psychological bulletin*, 2014; 140(4): 980.
12. Taghavi, M.R., The normalization of general health questionnaire for Shiraz University students (GHQ-28). *Daneshvar raftar*, 2008; 15(28): 1-12.
13. Ayyash, H. and Y.I. Aljeesh, Nurses' motivation and their performance at European Gaza Hospital in Gaza Strip. *Journal of Al Azhar University-Gaza (Natural Sciences)*, 2011. 13.
14. Heshmati Nabavi, F., Concordance of Continuing Education Programs with the Principles of Adult Learning and their Effectiveness: Perspectives of Nurses in Mashhad University of Medical Sciences. *Iranian Journal of Medical Education*, 2013; 12(11): 836-41.
15. Sajjadnia, Z., Sadeghi, A., Kavosi, Z., Zamani, M., Ravangard, R. Factors affecting the nurses' motivation for participating in the in-service training courses: A case study. *Journal of Health Management & Information Science*, 2015; 2(1): 21-6.
16. Vali L, Fattahpour, AH, Raadabadi, M, Saberi Anari, SH. Motivational factors affecting nurses' participation in in-service training programs: A case study of nurses working in teaching-general hospitals of Kerman University of Medical Sciences. *Health Management*, 2015;6 (2), 65-72.
17. Amerioun A, Ebadi A, Tavakkoli H, teymourzadeh E, Mousavi M, Momeni K et al . Survey of related factors with motivation of nurses intend to participating in the in-service training in affiliated baqiyatallah university hospitals in 2010. *IJNR*. 2012; 6 (23): 32-40.
18. O'Connor, A.B., Reasons nurses participate in continuing education. *Nursing Research*, 1979; 28(6): 354-59.
19. Anbari, Z., Survey of causes motivation Factors in GPs to participate in continuing education programs in Arak University of Medical Sciences. *Journal of Arak university medical sciences (Rahavard danesh)*, 2003; 2(12): 20-3.