



## Investigating the relationship between Learning Motivation and Quality of Care among Clinical Nurses

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### Abstract

**Background:** The motivation of nurses to improve their qualifications is essential in the healthcare delivery system. Motivating nurses toward participation in learning activities improves their knowledge, skills, and professionalism. The present study aimed to identify the learning motivation among Iranian clinical nurses and its relationship with the quality of care in health centers.

**Materials and Methods:** This cross-sectional research was conducted at five hospitals affiliated with Mashhad University of Medical Sciences in 2020. Sampling was done by the random categorical cluster sampling method, and 300 nurses were selected and completed the demographic information form, the Quality Patient Care Scale, and the researcher-made learning motivation questionnaire. Data analysis was performed by SPSS software version 25.0.

**Results:** The mean and standard deviation of the age of the nurses were  $32.9 \pm 6.2$ , ranging from 22 to 55 years. Most of the studied nurses were female (70.0%, 210 cases). The mean score of the nurses' learning motivation was  $104.6 \pm 11.1$  (out of 130). The mean score of the nurses' quality of care scores was  $204.7 \pm 24.8$  (out of 268). The Pearson correlation coefficient test indicated a significant linear relationship between learning motivation and quality of care in the studied nurses ( $p < 0.001$ ,  $r = 0.31$ , 95% CI: 0.307-0.313).

**Conclusion:** Because of the direct relationship between learning motivation and quality of care, it is recommended to adopt appropriate methods for promoting nurses' learning motivation. This may help increase the quality of care as an essential goal of nursing and the health system.

**Key Words:** Health Centers, Learning motivation, Nurses, Quality of Care.

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## 1- INTRODUCTION

Nurses constitute the majority of healthcare providers. They are responsible for delivering the necessary care with the desired quality to improve and maintain patients' lives (1). Improving nurses' competencies, including knowledge, skills, and attitudes, can enhance their activities and their quality of care (2). Participation in training sessions and continuous learning can improve nurses' qualifications, leading to a higher quality of care (2). Several factors work to motivate healthcare providers toward self-learning, including self-qualifications, self-esteem, communications with others, income, commitments, organizational policies, and the need for self-improvement to improve the quality of care (3, 4). Recently, the investigation of the motivation of healthcare providers has grown due to its positive effects on their performance and quality of care (5).

Motivation is a significant part of nursing education in educational institutions and healthcare delivery systems (3, 6, 7). 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 results in nurse burnout and shortage (8). The quality of healthcare depends on the collaboration of all healthcare providers, including physicians and nurses, where determining the performance at the individual level does not necessarily predict the outcomes of the system (9, 10). Difficulties in motivating healthcare professionals (such as motivation to learn) can affect patient care as they hinder the development of motivation-based policies and interventions for a higher quality of care. Moreover, current motivational strategies may have unintended consequences. According to the literature review, motivation has been emphasized in

management, psychology, and education. The main dimensions of motivation are educational goals, academic failure, life experiences, social communication, student-teacher interactions, and opportunities for accountability (11). According to the World Health Organization, quality has six dimensions: effectiveness (congruent with current medical evidence, leading to better health outcomes), efficiency (the optimal and sustainable use of personnel and resources), accessibility (timeliness, skills, and resources matching medical need), patient-centeredness (respect for individual needs and preferences of the patient), equitability (no discrimination regarding gender, ethnicity, or socioeconomic status), and safety (10).

Increasing the motivation to learn promotes active participation in learning activities, which could increase healthcare providers' knowledge, skills, and performance and improve the quality of nursing care (5, 6, 12). Nurses in Iran are required to pass 40 to 60 hours of continuing education every year to maintain and update their knowledge base and qualifications (2). Providing high-quality nursing care depends on the maintained motivation of nurses by updating their knowledge base, participating in training sessions, and constant self-learning activities (13).

Several studies have underlined the motivation toward learning, while only a few have applied a broad approach incorporating the correlation between motivation and the quality of care (2, 12, 14, 15). Overall, the correlation between these two factors remains unexplored. Evidence on the working conditions of nursing, the need to create dynamism and innovation, the significance of education and constant learning, and the researcher's experience in different units of the hospital shows that there are still challenges regarding the learning motivation from the

nurses' viewpoint. It is necessary to investigate these challenges and their correlation to the quality of care. Therefore, the present study was conducted to "identify the motivation to learn among Iranian clinical nurses and its relation to the quality of care in health centers in Iran".

## 2- MATERIALS AND METHODS

### 2-1. Study design and population

This Quantitative descriptive research was conducted in 2020 at five selected hospitals affiliated with Mashhad University of Medical Sciences (Emam Reza, Ghaem, Omid, Shahid Kamyab, and Shahid Hasheminejad) in Mashhad, Iran, after the approval of the Ethics Committee of Mashhad University of Medical Sciences. The participants in this research were clinical nurses employed in hospitals of Mashhad University of Medical Sciences in Mashhad, Iran. Sampling was done by the probability multi-step cluster categorical sampling method. The hospitals of Mashhad University of Medical Sciences were divided into two categories of large and medium-scale according to their bed numbers. From the categories, two large and three middle hospitals were selected randomly (as clusters). All wards of the selected hospitals were divided into two categories of intensive and general wards. Wards from both categories were divided into special, emergency, and ordinary categories. The required number was selected from each in proportion to the volume. Questionnaires were distributed to all nurses of the 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, had different levels of education, including a bachelor's degree or higher, and completed the informed consent form to participate in the study were selected. The sample size

was selected as 300 based on the calculation of learning motivation from a pilot study on 30 people with a 95% confidence interval (CI), the formula for calculating the average in a limited community, and considering the drop in the samples.

### 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.

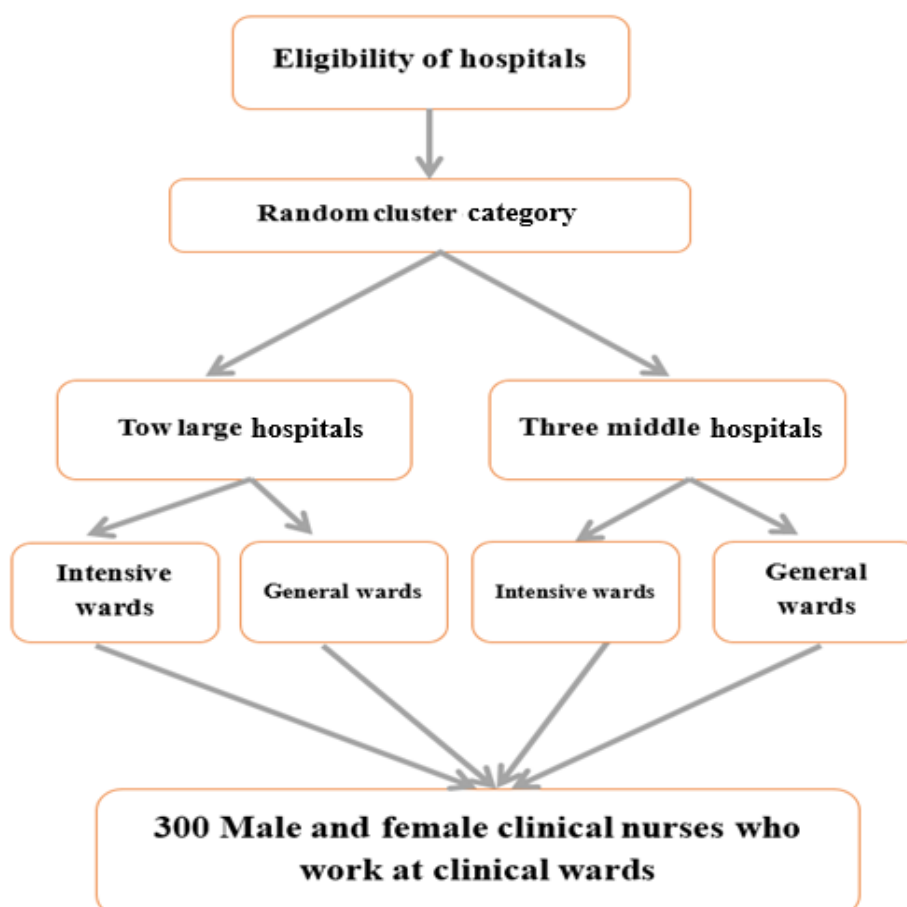
### 2-4. Measuring tools

The 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 the number of work shifts. The researcher-made questionnaire contained 25 Likert-scale questions on the science learning motivation in clinical nurses. The Learning Motivation Questionnaire is a draft of the main questions, and the items of this questionnaire are 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  $\alpha = 0.825$ .

The Quality Patient Care Scale has 65 questions in three dimensions of psychosocial, communication, and physical, which are from the 5-point Likert scale: rarely: Score 1, sometimes: Score 2, most of the time: Score 3, always: Score 4, and no case: Score 0. This questionnaire is one of the most reliable tools to measure the quality of care. The validity of this questionnaire was studied in Tabriz in 2003 and adapted to Iranian culture. The questionnaire has been used in various foreign and Iranian studies (13, 16-18),

and its reliability has been confirmed (13, 16, 17). In the study of Khaki et al. (2018), Cronbach's alpha coefficient was 0.96 (13). The studies indicate that QUALPAC has the necessary validity for use in the Iranian population (19). In the present study, the validity in terms of usability in the studied clinical nurses was confirmed by the content validity method with the opinion of ten members of the Faculty of Nursing and Midwifery. The reliability of the Persian version has been confirmed. The internal consistency method is used to evaluate the reliability by calculating Cronbach's alpha coefficient on questionnaires completed by ten clinical nurses. Results showed an alpha coefficient of 0.79, indicating good reliability.



**Fig.1:** Sampling method.

## 2-5. Ethical considerations

The Institutional Review Board (IRB) at the University of Mashhad, School 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 were analyzed using descriptive (mean, standard deviation, and frequency distribution), and inferential (Chi-square

test, Pearson correlation coefficient, multiple regression, and ANOVA) statistics. Data analysis was performed with SPSS software version 25.0, and a 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 via 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 the nurses' learning motivation was  $104.6 \pm 11.1$  out of 130 (moderate level) (**Table.2**). The mean score of the nurses' quality of care was  $204.7 \pm 24.8$  out of 268 (moderate level) (**Table.3**).

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

Variables	Sub-group	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 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 (year)	<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
Total		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.

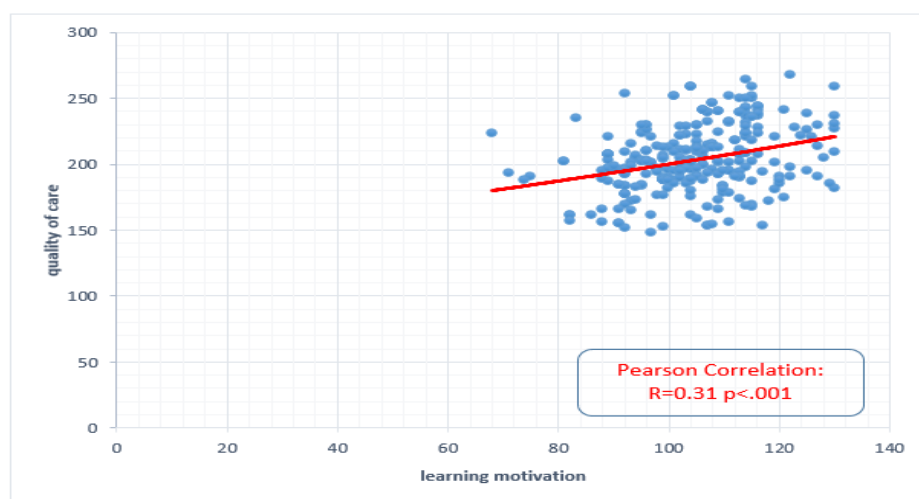
**Table 3:** Descriptive statistics of quality of care scores of the studied nurses (n=300).

Variables	Number	Minimum	Maximum	Mean	SD	95% CI
Quality of Care	300	148.0	268.0	204.7	24.8	201.9-207.5

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

According to the Pearson correlation coefficient test, there was a significant positive linear relationship between

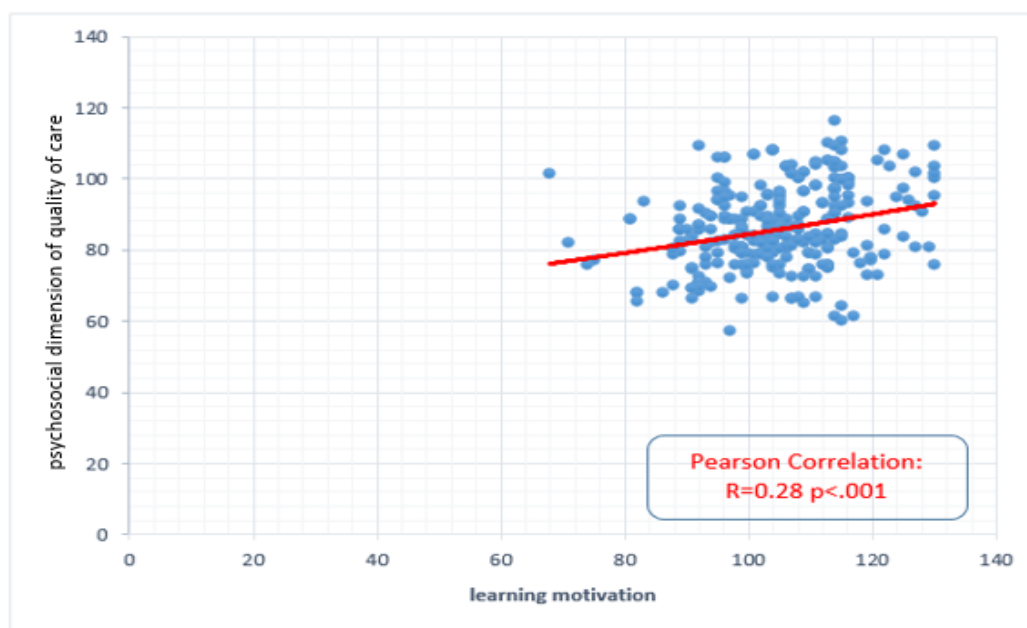
learning motivation and the quality of care in the studied nurses ( $p < 0.001$ ,  $r = 0.31$ , 95% CI 95: 0.307-0.313) (**Figure.2**).



**Fig.2:** Correlation between learning motivation and quality of care in the studied nurses (n=300).

According to the Pearson correlation coefficient test, there was a significant positive relationship between learning

motivation and the psychosocial dimension of quality of care in the studied nurses ( $p < 0.001$ ,  $r = 0.28$ ) (**Figure.3**).



**Fig.3:** Correlation between learning motivation and the psychosocial dimension of quality of care in the studied nurses (n=300).

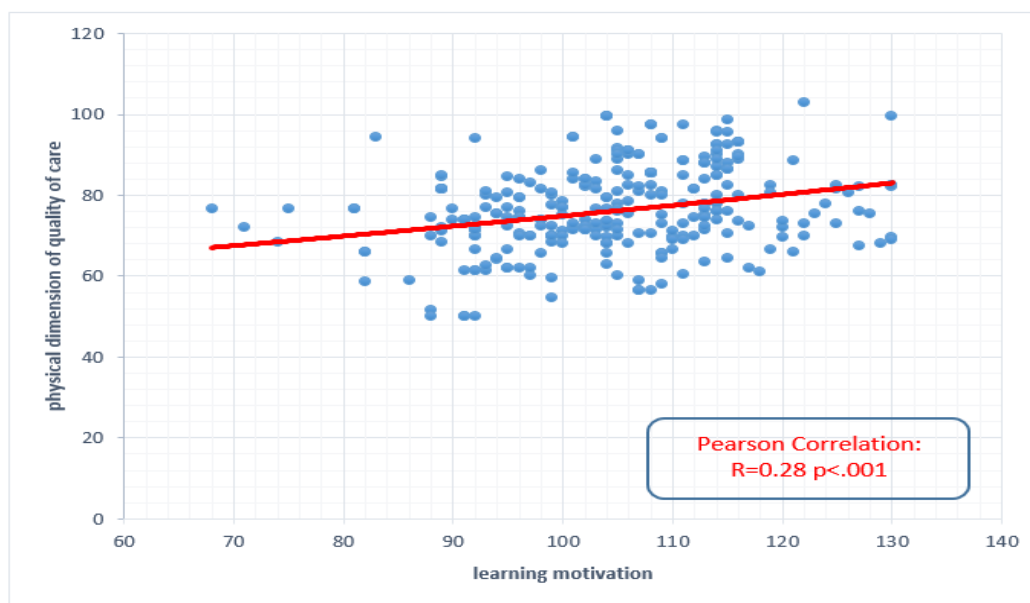
Also, there was a significant positive relationship between learning motivation and the communicational dimension of the quality of care ( $p < 0.001$ ,  $r = 0.29$ ) (**Figure.4**), and a significant positive

relationship between learning motivation and the physical dimension of quality of care of the studied nurses ( $p < 0.001$ ,  $r = 0.28$ ) (**Figure.5**).



**Fig.4:** Correlation between learning motivation and the communicational dimension of quality of care in the studied nurses (n=300).





**Fig.5:** Correlation between learning motivation and physical dimension of quality of care in the studied nurses (n=300).

#### 4- DISCUSSION

This study aimed to identify motivation to learn among clinical nurses and its relationship with the quality of care in the Iranian health services in 2021. Based on the results of this study, the level of learning motivation in the majority of participants was at a moderate level. The study by Markowich (1994) confirms the results of the current study (8). In contrast, Heshmati Nabavi et al. (2013) found a lack of motivation in nurses to participate in learning, indicating a significant problem in continuing education programs (9). The findings of the current study showed that the mean score of nurses' quality of care was  $204.7 \pm 24.8$  out of 268 (moderate level). In a descriptive cross-sectional study, Keshmiri et al. (2016) acknowledged that despite the implementation of formal and legal training courses for nurses, the provisions of high-quality care that reflect the implementation of educational care standards in these courses are lacking. They suggested continuous training to improve nursing performance for the development of their performance. The

results of their research are in line with the findings of the present study (20). Similar to the present study, Haghighi Moghadam et al. (1998) reported the low quality of nursing care and stressed the need to educate nurses, the supervision of management officials on the quality of care and health services based on the nursing process, and an accurate evaluation of the quality of nursing care (21). In Senegal and Bolivia, the competence of practical health workers was assessed as moderate. The researchers concluded that service training is important as it helps refresh past knowledge and practice, identify and correct mistakes, and ultimately improve health system performance (22). The findings of the current study also showed that there is a significant positive linear relationship between learning motivation and quality of care in the studied nurses. Momanyi et al. (2016) suggested that motivation was needed predicted organizational commitment and the quality of care. In their study, most respondents and health service managers agreed that in-service training programs helped health



workers make decisions consistent with their goals, perform tasks with good speed, perform duties accurately, and go to great lengths to achieve their goals (23). The results of the current study were similar to findings of public hospitals in New Zealand and the United States, where the perceived access to training, motivation to learn, benefits of training, and supervisory support for training were positively related to the better commitment and quality of care (24). In addition, the findings of this study agree with a study in Malaysia, which indicated that accessibility to and support in training were interrelated with the affective and normative commitment and the overall organizational commitment. However, there was no association between training availability, support in training, and motivation to learn with continued commitment (25).

In a quantitative study, Iqbal et al. (2020) indicated a significant relationship between in-service training and employee performance. They found that training reduces the gap between actual performance and the standard required performance. In addition, employees were more involved in their job through training and could improve their performance significantly by achieving relevant skills (26). Seniwoliba (27) found that nurses' motivation plays a prominent role in predicting service quality performance, which is in line with the present study. Improving the motivation to learn and in-service training are recommended by the World Health Organization as critical to enhancing health worker commitment (28). The most important strength of the present study is that it was one of the few studies to examine the level of learning motivation, the quality of care, and their relationship among clinical nurses in Iran health services.

#### 4-1. Study Limitations

The present study had some limitations. One limitation is the cross-sectional type

of this study. This study type did not provide cause and effect inferences. Therefore, common relations among the variables of this study could be better 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. The third is the use of a single method (a questionnaire) for data collection.

## 5- CONCLUSION

As the motivation to learn and the quality of care in the studied nurses was moderate, it is necessary to plan for improvement. Due to the direct relationship between learning motivation and quality of care, it is recommended to adopt appropriate methods for promoting nurses' learning motivation. This will help increase the quality of care, which is one of the primary goals of nursing and the health system.

## 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.

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