

## Investigating of The effectiveness of motivational measures in increasing the motivation of nurses to work In pandemic Covid 19 in Iran<sup>1</sup>

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### ABSTRACT

*Objective :* The aim of this study was to determine the effectiveness of motivational measures in increasing nurses' work motivation in Covid 19 epidemic.

*Method:* The present study was performed in 11 hospitals in Iran in such a way that the managers of 11 hospitals performed 12 motivational actions experimentally on nurses who were involved in caring for patients with coronary heart disease. Participants were selected using the snowball sampling method and the sample size was determined based on the researcher's opinion. 714 nurses entered the study. The researcher-made questionnaire consisted of two parts, the first part was related to the demographic characteristics of nurses and the second part was related to motivational measures.

*Results:* As a result of this study, the most effective motivational measures for nurses including financial rewards ( $r = 0.62$   $P < 0.0097$ ), injection of Covid 19 vaccine ( $r = 0.62$   $P < 0.0097$ ), presence of managers in wards ( $P < 0.0072$   $r = 0.57$ ), Appreciation of nurses as health support ( $r = 0.54$   $P < 0.0060$ ) and provision of standard protective equipment ( $r = 0.49$   $P < 0.0084$ ).

*Conclusions:* Paying attention to nurses' motivational factors in the occurrence of Covid-19 pandemic crisis has special complexities. Therefore, it is necessary for managers of other hospitals to plan and implement motivational programs according to nurses' needs in order to improve the quality of clinical services.

*Keywords:* Covid 19, motivational measures, nurses, performance.

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## Introduction

The dramatic spread of Covid-19 around the world has challenged people of all nationalities, especially the responsibilities of health care providers.<sup>1</sup> Nursing is the largest front and most diverse professional workforce in any health care system.<sup>2</sup> Covid's disease currently poses 19 challenges and barriers to nursing care.<sup>3</sup> During the Covid epidemic, 19 nurses feared infection and the risks of the disease.<sup>4</sup> On the other hand, a combination of job needs and scarce resources such as personal protective equipment<sup>5</sup> creates significant stress for this group that may affect the health and well-being of nurses.<sup>6,7</sup> Therefore, a unified global strategy is needed to prepare health care systems to deal with this large and unprecedented crisis.<sup>8</sup> In this difficult and unfortunate period, health care workers also need strong motivational measures to improve productivity.<sup>9</sup> Motivation plays a key role in addressing the challenges in the healthcare sector.<sup>10</sup> Competent and efficient managers can provide conditions and facilities to create positive motivation in nurses. And create good results and quality care following some motivational measures.<sup>11</sup> This is because nurses will take on responsibilities beyond their normal responsibilities in critical situations such as the Covid Pandemic.<sup>12</sup> Motivational factors increase the chances of good performance in nurses by 2.43 times.<sup>13</sup> And the cause of Poor Quality in Patient care is strongly related to nurses' job motivation.<sup>14</sup> Given that nurses constitute the largest group of health professionals<sup>15</sup> and play an essential role in the medical care of patients with Covid 19, Understanding the factors affecting nurses' job motivation and their availability is one of the main components in improving the quality of care for patients with coronary heart disease.<sup>16</sup> Epidemiological disease 19 has been performed in Iran.

## METHOD

### Study design

We Conducted an Experimental Study to Investigate This Research question: "How is the Effectiveness of Motivational Measures in Increasing the Motivation of nurses to work in Pandemic 19 in Iran?" 12 Motivational Measures Were Performed Experimentally in the Spring and Summer of 1400 by Managers of 11 Hospitals.

### Selection of participants

Participants were selected using snowball sampling method in 11 hospitals in Iran. The sample size was determined based on the researcher's opinion. Participants in this study were all frontline nurses who voluntarily completed the questionnaires. We also sent messages to attract participants via smartphones.

### Data collection

Data from this study were collected through a researcher-made questionnaire. The questionnaire consisted of two parts, the first part related to the demographic characteristics of nurses and the second part related to motivational measures (1- Paying financial rewards 2- Injecting Covid vaccine 3- Providing standard protection equipment 4- Developing a suitable diet plan for nurses 5- Periodic monitoring of nurses' health 6- Emphasis on the importance of nurses' role 7- Live performance of famous groups 8- Religious ceremonies 9- Presence of managers in wards 10- Appreciation of nurses as health supporters 11- Presence of clerics 12- Holding educational programs) Was. In this section, respondents were asked to rate these measures on a scale of 1 to 5. The validity of the present questionnaire was measured by content and face method, by studying and reviewing various information sources and under the supervision of 8 supervisors and 2 experts related to this issue and the reliability of the questionnaire in Cronbach's alpha for the entire questionnaire 0.82 was obtained.

### Data analysis

Data analysis was performed simultaneously with data collection. A conventional method was used to analyze the data. First, the completed questionnaires were carefully studied, then the average values for the questionnaire variables were calculated based on all the answers. Pearson correlation coefficient was used to determine the relationship between motivational measures and job motivation. It should be noted that the independent variable was motivational measures, and nurses' job motivation was a dependent variable.

### Ethical considerations

Conscious written consent was obtained from each participant. All participants were informed about the objectives of the study. They were also informed that they had the right to refuse and that this right could be at any time. We also guarantee the confidentiality of their personal information.

### RESULTS

683 nurses and 31 head nurses of 11 hospitals across Iran participated in this online study. Their mean age was 34.6 (2.8) years and their mean work experience was 11.2 (2.4) years. Table 1 shows the mean and standard deviation of motivational measures for participants. Data analysis identified the impact of 12 motivational actions on nurses' performance during the Covid 19 pandemic. Also, according to the deviation of the criteria in Table 1, it can be concluded that the opinions of nurses and head nurses are close to each other. Therefore, it can be said that job position does not affect the type of response.

**Table 1: Mean and standard deviation of motivational measures**

Motivational Measures	Job Position	Percentages of Responding to the questionnaire	Mean	SD
Payment of financial rewards	Nurse	94	92	1.4
	Supervisor	93		0
Supply of standard protective equipment	Nurse	92	85	0
	Supervisor	93		1.4
Covid vaccine injection 19	Nurse	94	92	1.4
	Supervisor			
Develop a suitable diet plan for nurses	Nurse	71	67	2.8
	Supervisor	69		1.4
Periodic monitoring of nurses' health	Nurse	86	82	1.4
	Supervisor	90		1.4
Emphasis on the importance of the role of nurses	Nurse	80	76	2.8
	Supervisor	79		2.1
Live performances of chohre groups	Nurse	61	61	0
	Supervisor	59		1.4
Religious ceremonies	Nurse	57	56	1
	Superviso	53		2.4
Presence of managers in wards	Nurse	82	91	0
	Superviso	85		2.1
Appreciation of nurses as health advocates	Nurse	84	88	0
	Superviso	87		2.1
The presence of clerics	Nurse	73	73	0
	Superviso	77		2.8
Holding training programs	Nurse	73	69	2.8
	Superviso	67		
1.4				
The total average of response to the questionnaire		76	3.1	

According to Table 2, payment of financial rewards and vaccination of Covid vaccine 19 had the most relationship with nurses' job motivation ( $r = 0.62$   $P < 0.0097$ ) and then the presence of managers in wards ( $P < 0.0072$   $r = 0.57$ ), Appreciation of nurses as sponsors Health ( $r = 0.54$   $P < 0.0051$ ) and supply of standard protective equipment ( $P < 0.0084$   $r = 0.49$ ) were the most effective methods for nurses.

### Payment of financial rewards and injection of Covid vaccine 19

The opinions of the nurses and head nurses of these 11 hospitals were implemented among 12 motivational actions. According to Table 1, their opinions for these two motivational actions were completely the same, and according to Table 2, payment of financial rewards and injection of Covid 19 vaccine had a significant ( $P < 0.0097$ ) ( $r = 0.62$ ) positive effect on job performance.

**Table 2: Correlation of motivational measures with job motivation**

Motivational Measures	Pierson	P-Value
Payment of financial rewards	0.62	0.0097
Supply of standard protective equipment	0.49	0.0084
Covid 19 vaccine injection	0.62	0.0097
Develop a suitable diet plan for nurses	0.121	0.0058
Periodic monitoring of nurses' health	0.33	0.0067
Emphasis on the importance of the role of nurses	0.44	0.0070
Live performances of chohre groups	0.156	0.0064
Religious ceremonies	0.143	0.0060
Presence of managers in wards	0.57	0.0072
Appreciation of nurses as health advocates	0.54	0.0051
The presence of clerics	0.153	0.0053
Holding training programs	0.40	0.0055

### **Presence of managers in wards, appreciation of nurses as health care providers, provision of standard protective equipment and emphasis on the importance of the role of nurses**

By analyzing the answers to the questionnaires, it was found that the opinions of the nurses and nurses in these 4 motivational actions were very close to each other and after two motivational actions of paying financial rewards and injecting Covid vaccine 19, the most correlation with nurses' job performance in Covid pandemic Dedicated to themselves.

### **Holding training programs and periodic monitoring of nurses' health**

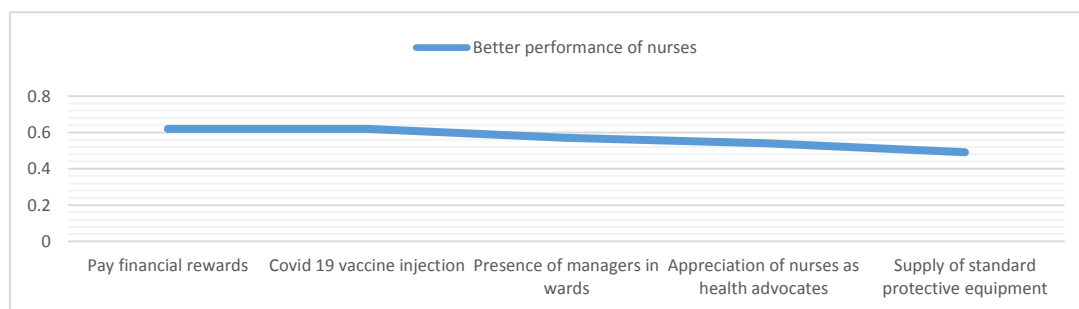
The opinions of nurses and head nurses about these two motivational actions were close to each other and each of them had a significant relationship ( $P < 0.0067$ ) ( $r = 0.40$ ), ( $P < 0.0055$ ) ( $r = 0.33$ ) with job performance, respectively, from the point of view of nurses and head nurses. they had .

### **Live performances of famous groups, the presence of clerics and religious ceremonies**

According to Table 2, the opinions of nurses and head nurses in these three motivational actions were very close to each other and had less significant relationship than the above motivational actions mentioned.

### **Develop a suitable diet plan for nurses**

According to Table 2, the nutritional status of nurses in these 11 hospitals in Iran had the least impact on their job performance during the Covid 19 pandemic. And had no significant relationship ( $P = 0.58 > 0.05$ ) with job performance.



**Figure 1: Chart of correlation rates are the most important factors in improving nurses' performance in caring for patients with coronary heart disease.**

In Figure 1, five important factors including financial reward payment, Covid vaccine 19, presence of managers in wards, appreciation of nurses as health care providers and provision of standard protective equipment had the greatest impact on nurses' job motivation. In the present study, after performing motivational measures in these 11 hospitals, the results showed better performance of nurses, so there is a linear and direct relationship between increasing these measures and improving the performance of nurses. It should be noted that according to the studies, the supply of standard protection equipment remained constant after a period of time.

## **Discussion**

In the current situation, due to the prevalence of coronary heart disease and environmental stress, the motivation of nurses to work has decreased. Therefore, the creativity and innovation of hospital managers is very important to maintain the morale of nurses. We categorized these motivational factors into three groups.

### **High-impact motivational factors**

In this study, payment of financial rewards, injection of Covid vaccine 19, presence of managers in wards, appreciation of nurses as health care providers and provision of standard protective equipment had the highest impact on nurses' job performance. Without strong motivation, better performance in nurses can not be expected and consequently improvement in the quality of health services.<sup>17</sup> In the study of Butniger et al. Research in Rwanda was also the most important motivator mentioned by nurses for paying financial rewards.<sup>18</sup> In the study of Purohit et al., Financial rewards were the most important motivating factor among health care workers.<sup>19</sup> In our study, the most important factor in nurses' job motivation was the payment of financial rewards. In a study in the United States, 81.9% of nurses were willing to receive the vaccine.<sup>20</sup> In our study, injecting Covid 19 vaccine into nurses had a significant effect on nurses' job performance. Standard protective equipment is a key component in preventing and controlling infection in the Povoandy Quoid 19. A study by Cohen et al. Showed that without standard personal protective equipment, it is more likely to provide unsustainable health care.<sup>21</sup> Which was in line with the present study. In a study by Wensoja et al., Face masks, especially in design, breathability, and stability issues, did not meet nurses' expectations. And showed that appropriate protective equipment is a factor of job motivation of nursing staff.<sup>22</sup> In our study, standard protective equipment was one of the factors of nurses' job motivation. Its presence did not cause job motivation, but its absence caused dissatisfaction. In the research of Ganz et al. And in the study of Iserson, the appropriate social and organizational environment, including the presence of managers in the department and the appropriate personal behavior and character of the nursing staff, caused more job motivation for nurses in emergencies such as Pandemic Covid 19.<sup>23,24</sup> In the present study, the presence of managers in the wards was significantly associated with nurses' job motivation ( $r = 0.40$   $P < 0.0072$ ). Zhao et al.'s and Debut's research on nurses during the Covid 19 outbreak did not adequately praise nurses as health care providers, which led to their dissatisfaction and showed that nurses' appreciation of health care providers can motivate them to work.<sup>25,26</sup> Research by Chandler-Jeanville et al. Showed that gratitude to nurses increases their job motivation.<sup>27</sup> In our study, the appreciation of nurses as health supporters had a significant relationship with nurses' job motivation ( $r = 0.38$   $P = 0.0051$ ).

### **Motivational factors with moderate impact**

In the United States, personnel who attended religious services at least once a week were at lower risk of frustration, fear, anxiety, and sadness during the Covid 19 pandemic.<sup>28</sup> Spiritual factors also had a positive effect on the study of Bentzen et al.<sup>29</sup> In the present study, the presence of clerics and religious ceremonies was one of the motivational factors that affected the professional performance of nurses. Contrary to expectations, in the study of Prazers et al., Religiosity and spirituality between physicians and other staff was not considered as an important factor,<sup>30</sup> which was not consistent with the present study. Another motivating factor with moderate impact is holding an educational program to have specialized, healthy nurses and create effective and safe health services, which in the competent study of skilled and healthy workforce colleagues is a vital and continuous need to ensure safe and effective health services. It was to society that it is as important in a health crisis as the current Covid 19 crisis.<sup>31</sup> Periodic monitoring of nurses' health was also one of the motivational factors with a moderate impact on nurses' job performance, which was performed by the managers of these 11 hospitals in Iran.

### **low-impact motivational factors**

Stressful events, such as the Covid 19 epidemic, may cause anxiety and lead to poor eating habits.<sup>32</sup> In a study by Doong et al., It was shown that healthy diet in nursing students should be used for better decision making and more effective health outcomes during the Covid 19 pandemic.<sup>33</sup> In the present study, developing a suitable diet plan for nurses was a low-impact motivational factor. Live performance of

Shohreh groups was also one of the motivational factors with low impact on nurses' job performance, which was performed by the managers of these 11 hospitals in Iran.

### Limitations

This research has several limitations. First, the research sample may be small compared to other social media surveys. However, this study focuses on a specific research population of nurses who worked in the health care system, especially in hospitals, during the outbreak of Covid 19. We also analyzed data from complete surveys and removed questionnaires that were not fully answered.

### Conclusions

This study provides evidence of nurses' job motivation during 12 motivational actions during the Covid 19 pandemic. Nurses showed a strong commitment to health care despite taking many risks, but as the disease continued in the coming months, they sought motivational measures to address ethical concerns. Therefore, it is necessary for the managers of other hospitals to plan and implement different programs and methods according to the needs of nurses to increase job motivation and improve the quality of clinical services. In order not to exclude nurses from the health care system in crisis conditions of Corona pandemic. It is also suggested that similar studies be conducted specifically to assess various motivational factors on nurses who are at the forefront during the Covid 19 crisis.

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