

Motivating factors among Iranian nurses

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ABSTRACT

Background: One of the most important challenges of Iranian health care system is “quality of care,” and it is assumed that motivated nurses are more ready to provide better care. There are limited studies investigating Iranian nurses’ motivations; however, factors which motivate them have not been studied yet. Identifying the motivating factors enables nurse managers to inspire nurses for continuous quality improvement. The aim of this study was to identify motivating factors for Iranian hospital nurses.

Materials and Methods: This is a cross-sectional descriptive study in which 310 nurses working at 14 hospitals of Tehran University of Medical Sciences were selected by proportionate stratified random sampling. Data were collected in 2010 by a researcher-developed questionnaire. Descriptive statistics and independent t-test, analysis of variance, Tukey *post-hoc* test, Chi-Square and Fisher’s exact test were used for statistical analysis by Statistical Package for Social Sciences (SPSS) version 16.

Results: The mean score of motivation was 90.53 ± 10.76 (range: 59–121). Four motivating factors including “career development” (22.63 ± 5.66), “job characteristics” (34.29 ± 4), “job authority” (18.48 ± 2.79), and “recognition” (15.12 ± 2.5) were recognized. The least mean of the motivation score, considering the number of items, was 3.23 for career development, while the highest mean was 3.81 for job characteristics.

Conclusions: The findings showed that motivation of nurses was at a medium level, which calls for improvement. The factors that have the greatest potential to motivate nurses were identified in this study and they can help managers to achieve the goal of continuous quality improvement.

Key words: Continuous quality improvement, Iran, motivating factors, motivation, nurses

INTRODUCTION

In recent years, nursing staff shortages have become a major challenge for health care systems around the world, including Iran. In 2008, Iranian hospitals needed approximately 220,000 nurses; nonetheless, there were just about 90,000 nurses.^[1] This shortage is related to decreased satisfaction among nurses and posed a potential threat to the quality of patient care.^[2,3] In the study which was conducted in 12 countries in Europe and the USA, the range of nurses’ burnout was from 10% in the Netherlands to 78% in Greece, job dissatisfaction was from 11% in the Netherlands to 56% in Greece, and intention to leave was from 14% in the USA to 49% in Finland and Greece.^[4] Nursing shortages are a symptom of inadequate policies on recruitment and retention of nurses in the world.^[5] Also, in a nationwide study, Iranian nurses reported an average level

of job satisfaction.^[6] Another important challenge of Iranian health care system is “poor quality of patient care,”^[7] which is influenced strongly by nurses’ motivation.^[3,5,8] Nurses are the main group of the human resources in the health care and the quality of health care is highly dependent on an adequate recruit and supply of qualified and motivated nursing personnel.^[9]

Several studies also showed that “motivation” is an important factor that influences nurses’ job satisfaction^[10] and their intention to work.^[7,11,12] Motivated and satisfied nurses are more ready to provide better care and cooperation.^[13] Therefore, understanding nurses’ motivators can enhance job satisfaction, quality of care, and productivity.^[14-16] Identifying nurses’ motivators can help nurse managers to find a way to motivate nursing staffs.^[14-16] But the focus of previous studies has been mainly on the association of job motivation with different variables such

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as evaluation outcomes,^[17] psychiatric nurses' anger,^[10] job satisfaction,^[18] innovation,^[19] and individual and organizational factors.^[14-16] In general, few studies have been conducted about nurses' motivating factors.

Since the 20th century, management theories and practices have mainly focused on how to motivate the people.^[13] Therefore, psychologists have extensively studied about motivation and have provided theories about the reasons for motivation. Motivation is defined as a process responsible for making the efforts strong, directed, and continuous to achieve the goals. In general, motivation originates from the needs that must be met. Also, satisfying the needs leads to rewards that could be internal or external.^[18] Russell and Swansburg believed that motivation is a concept used to describe an external condition stimulating a special behavior and internal responses revealing that behavior.^[20] Many theories were applied to explain motivation at work, such as the needs theory (Maslow 1954; Herzberg *et al.* 1959), expectancy theory (Vroom 1964), equity theory (Adams 1965), and goal setting theory (Campbell and Pritchard 1976);^[5] however, there is no single theory describing motivation comprehensively. It can be one of the possible reasons for the lack of consensus in an instrument to measure motivation. This study was conducted to identify the motivating factors among the hospital nurses of Tehran University of Medical Sciences.

MATERIALS AND METHODS

This is a descriptive study in which the motivation of 310 nurses working at 14 hospitals of Tehran University of Medical Sciences was evaluated in 2010. Nurses who had full-time work experience of at least 1 year in clinical practice in nursing and also had associate degree or higher educational qualification in nursing were included in the study. According to our given population size ($N = 2427$), the sample size was calculated as 300 using Krejcie and Morgan table.^[21] However, to ensure obtaining an adequate sample size, with likelihood of 10% incomplete questionnaires, 330 questionnaires were delivered to nurses. Study participants were recruited by proportionate stratified random sampling. In stratified random sampling, the strata are formed based on members' shared attributes or characteristics. In this study, each hospital was considered as a stratum and the samples were selected based on the proportion of the number of nurses in each hospital from the sampling frame.

Ethics committee of the Tehran University of Medical Sciences approved the study. The researcher explained the purpose of the study and freedom for joining in the study to the potential participants.

Completion of the questionnaires was considered as implied consent of the participants. The sampling process was continued until the required sample size was obtained. So, if the selected nurses did not wish to participate in the study or complete the delivered questionnaire, researchers selected the next nurse from the list. The participants took 15 min to complete the questionnaires at their rest room. The analysis was done for the data of 310 nurses in the sample because 20 questionnaires were incompletely filled.

Demographic information questionnaire was used to measure the variables of age, gender, marital status, educational level, income status, work position, having overtime, and working in other hospitals. In spite of the availability of instruments to measure motivation, we developed a new questionnaire because of Iranian hospitals' context and socio-cultural differences. The instrument was developed by an extensive review of the literature including previous studies conducted in Iran. After the initial draft of the instrument was developed, its content validity was evaluated by the nursing scholars who have experiences regarding the topic. In this stage, two items were omitted and a number of them were modified. Also, the Content Validity Index (CVI) was estimated and all items were approved based on their CVI > 0.85. Then, for face validity, the instrument was distributed to 10 nurses and their views on its simplicity and comprehensibility were taken and the required changes were made. After exploratory factor analysis, 30 items were reduced to 25 and classified into four factors: Career development (7 items), job characteristics (9 items), job authority (5 items), and recognition (4 items). The factors were named after the item with the highest standardized factor loading within the domain. The results of factor loadings are presented in Table 1.

For reliability, 30 nurses completed the instrument and the Cronbach alpha coefficient was calculated as 0.81. The results for each factor are shown in Table 1. The items were scored on Likert scale, with scores ranging from very low (1) to very high (5). The total score ranged from 25 to 125. Distribution of scores from the instrument and its factors was categorized based on the range of possible scores as follows: Low (0–33%), medium (33–66%), and high (66–100%). Also, to compare different factors, the mean score of each factor was obtained by dividing the sum of scores of each factor by the number of its items.

Statistical Package for Social Sciences (SPSS) version 16.0 for windows (SPSS Inc., Chicago, IL, USA) was used for statistical analysis. Descriptive statistics and independent *t*-test, analysis of variance, Tukey *post-hoc* test, Chi-square

Table 1: Factor loadings and Cronbach alpha coefficient for nursing motivation questionnaire

Motivating factors	Number of items	Items	Factor loadings	Cronbach alpha coefficient
Career development	5	The supervision of head nurse is an effective way to optimize my performance	0.394	0.79
	20	If I do my duties accurately, I am encouraged by the head nurse	0.695	
	21	My duties give me the possibility to utilize all of the learned skills	0.706	
	22	I think the organization knows the value of nursing practice	0.712	
	27	There are many opportunities for growth and advance in the nursing career	0.733	
	29	Nursing is a profession that provides me significant opportunities for performance authority	0.693	
Job characteristics	30	I can complete the works that I started and see their results	0.637	0.57
	1	My job requires doing multiple tasks and using various skills	0.586	
	7	My job is simple, repetitive and boring	0.396	
	8	My role as a nurse is vague	0.402	
	12	Critical thinking is essential in nursing care	0.470	
	14	My duties include complex and high-level skills	0.593	
	17	In nursing profession, it is easy to understand whether the work has been done optimally	0.575	
	19	Nursing job requires extra accuracy and effort	0.613	
Job authority	24	My job does not give me the chance and opportunity of completing the whole of one task by myself	0.411	0.70
	26	My profession includes various procedures	0.503	
	2	I do my nursing practices independently	0.752	
	3	I do all of the nursing care from beginning to end independently	0.807	
	4	I have certain goals in my daily practices	0.544	
	6	I constantly get feedback about how I do my practices	0.595	
Recognition	11	I haven't enough authority to perform my duties	0.650	0.6
	9	The quality of my practice affects on the outcomes of others practices and patients outcomes	0.379	
	13	The outcome of my cares is visible in the recovery of patients and the improvement of community health	0.402	
	15	Physicians consider my reports and idea for decision-making about the patient	0.653	
	16	The care plan is designed based on my reports	0.710	

and Fisher's exact test were used. A significance level of $P < 0.05$ was considered.

RESULTS

The mean age of the participants was 35.07 years [standard deviation (SD) = 7.46; range: 22–53]. The length of the participants' work experience ranged from 1 to 30 years, with a mean of 11.48 years (SD = 7.25). Other characteristics of the participants are shown in Table 2.

The motivation of most of the subjects in career development (52.6%) and job authority (64.5%) was at a medium level, while the motivation in job characteristics (61.3%) was at a high level. Half of the subjects had a high motivation in the factor of "recognition." Scores of total motivation and motivating factors are presented in Table 3. The findings of this study showed that

the least mean of the factor score, considering the number of items, was 3.23 for career development, while the highest mean was 3.81 for job characteristics.

Independent *t*-test showed that there was no statistically significant difference in the total motivation score between males and females ($P = 0.381$) and in terms of being employed in other hospital or none ($P = 0.599$). Also, independent *t*-test showed that total motivation of nurses who had overtime was higher than that of others ($P = 0.031$). Also, the results of one-way analysis of variance (ANOVA) showed that there was no difference in total motivation in terms of marital status and educational level. There was a statistically significant difference in the total motivation of nurses in terms of their positions ($P = 0.007$). Tukey *post-hoc* test showed that the motivation of head nurses was significantly higher than that of staff nurses ($P = 0.005$). The mean score of total motivation among nurses who had

Table 2: Characteristics of the participants (N=310)

Characteristics	Frequency (n)	Percentage
Gender		
Male	40	12.9
Female	270	87.1
Marital status		
Unmarried	131	42.25
Married	179	57.75
Education		
Associate degree	5	1.6
Baccalaureate degree	293	94.5
Master's degree	12	3.9
Income		
Inadequate	269	86.8
Adequate	41	13.2
Work position		
Staff nurse	243	78.4
Head nurse	53	17.1
Supervisor	14	4.5
Having overtime		
Yes	220	71
No	90	29
Working in other hospitals		
Yes	32	10.33
No	278	89.67

Table 3: Scores of motivating factors and total motivation

Score ranges	Frequency (n)	Percentage	Mean±standard deviation
Career development			
7-17	61	19.7	22.63±5.66
18-26	163	52.6	
>26	86	27.7	
Job characteristics			
9-21	1	0.3	34.29±4
22-33	119	38.4	
>33	190	61.3	
Job authority			
5-12	3	1	18.48±2.79
13-19	200	64.5	
>19	107	34.5	
Recognition			
4-9	5	1.6	15.12±2.5
10-15	150	48.4	
>15	155	50	
Total motivation			
25-59	1	0.3	90.53±10.76
60-92	172	55.5	
>92	137	44.2	

inadequate income was significantly less than those who had adequate income ($P < 0.001$).

The Chi-square test showed no statistically significant relationship of career development with gender, working overtime, and working in other hospital. This factor had a statistically significant relationship to income ($P = 0.001$), age ($P = 0.035$), and work position ($P = 0.04$). Fisher's exact test showed that the factor job characteristics was significantly related to the work position ($P = 0.021$), job authority was only related to overtime ($P = 0.035$), and also recognition was significantly related to overtime ($P = 0.043$).

DISCUSSION

The present study was conducted to identify the motivating factors among Iranian nurses. In this study, the factors of career development, job characteristics, job authority, and recognition were considered as the aspects of motivation in nurses. Shattuck *et al.*, in a systematic review, identified seven major motivational themes including financial rewards, career development, continuing education, hospital infrastructure, resource availability, hospital management, and recognition/appreciation.^[8] Except two factors, career development and recognition/appreciation, which are completely similar with the themes identified in the mentioned review, the other factors can be overlapped with the stated themes.

The findings showed that the least mean score of motivation, considering the number of items, was related to career development, while the highest one was related to job characteristics. These results are comparable with the results of a study conducted by Mahmoudi *et al.*, who reported the nature of work among the internal factors and supervision among the external factors as the most important factors of job motivation in Iranian critical care nurses.^[16] In the mentioned study, the ability to serve the community and the value of nursing among people as work nature factors have had the highest effect on job motivation. Several previous studies have identified accomplishing jobs, working independently, and attaining interpersonal relationships as the most important factors that motivate nurses.^[10]

The findings showed that the motivation score of 55.5% of nurses was at a medium level. This shows that the motivation of a significant proportion of nurses needs improvement. Similarly, Jodat *et al.* reported that nurses' overall score for job motivation was moderate.^[22] Also, this finding could be compared with the findings of the study conducted by Taghavi Larijani *et al.*, in which the motivation

of 65% of Iranian nurses working in medical-surgical wards was reported as low.^[17] Toode *et al.* believed that nurses generally have motivation for work.^[13] This controversy can be explained by the difficulties confronted by nurses in the Iranian health care system. Iranian hospitals deal with challenges including inadequate staffing, limited equipments available to nursing care, lack of authority to change practice, and organizational cultures rewarding routine and task-based practice.^[2,23-26] Low levels of motivation among nurses are important in view of the fact that the largest subgroup of human resources in the health care system consists of nurses. It becomes even more important considering that staff's motivation is a predictor of their productivity, and the studies conducted on productivity of Iranian nurses show that only 7.5% of Iranian nurses have shown the desired productivity.^[24-25,27] Therefore, improvement of motivation may lead to increase in productivity.

One of the main challenges in providing good-quality nursing care in Iran and around the world is shortage of nurses. Studies show that this shortage has a domino effect in nurses' loss of knowledge and motivation, exhaustion, burnout, and severe stress.^[28] Furthermore, job stress, lack of autonomy, and nurse-physician collaboration are the most important factors that contributed to nurses' job dissatisfaction and retention in the nursing literature.^[1] Yildiz *et al.* reported that job motivation of nurses is an important factor in the intent of nurses to leave nursing.^[12]

The findings of the present study showed a significant relation of age, work position, and the income status with the first factor (career development), work position with the second factor (job characteristics), and finally, working overtime with the third and fourth factors (job authority and recognition, respectively). Several researchers have shown a positive significant association between the age of nurses and their job motivation.^[29,30] Although there was no significant association between gender and total motivation score in this study, Franco *et al.* reported that female health workers in Jordan had lower ratings to motivational determinants, and there were almost no differences related to gender or age in Georgia.^[29] Koivula *et al.* found that nurses younger than 30 years were more motivated than older nurses, and higher university degrees were related to higher motivation in nurses.^[31] De Cooman *et al.* stated that male and female nurses are motivated for similar characteristics of nursing.^[32]

In a study by the mixed method in which the motivation of non-medical staff of Tanzania was examined, the findings showed that though non-financial factors are of great importance for motivation, financial satisfaction is a prerequisite of any intervention for increasing the

motivation by non-financial motivators.^[9] However, De Cooman *et al.* believe that nurses are basically motivated by the opportunity to serve the people.^[32] Also, the study of Lambrou *et al.* showed the managerial position was associated with job characteristics among Greek nurses.^[18] Also, Mahmoudi *et al.* found in their study that with increasing age, the importance of the supervision factor becomes less while the importance of the factor of appreciation and recognition is increased.^[16]

Limitation of this study is related to the sampling method. This means that the sample covered nurses who work in public university hospitals in Tehran, the capital and largest city of Iran; therefore, future study should be conducted to have a clear understanding about the motivating factors among nurses in public/private sectors of urban/remote areas. In addition, the questionnaire of this study was developed by the authors and used for the first time; hence, its criterion validity including concurrent and predictive validity should be evaluated in future studies.

CONCLUSION

Our findings showed that the factor of "career development" had the maximum potential ability to inspire nurses in their profession. So, it is necessary that nursing managers pay more attention to use the element of mentioned factors such as effective supervision, encouragement, and job enrichment. However, other motivating factors including job characteristics, job authority, and recognition should not be neglected to motivate nurses. Specifically, the findings of this study imply that the importance of the factor of "job characteristics," such as the use of various and high-level nursing skills, feedback, and critical thinking, as the first ranked motivating factor in the motivation of nurses needs to be emphasized. Moreover, the medium level of motivation in participants indicates the necessity of paying more attention to the motivating factors to improve motivation in nurses. The results of the current study can be used in programs designed to improve nurses' work motivation.

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