■ Original article

Relationship between job satisfaction, absence from work and turnover among nurses

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Abstract

Background and Purpose: Absence from work, quitting job and turnover of nursing staff put a great burden on any health care system in terms of hiring, training and maintaining nurses. Studies suggest that those with higher job satisfaction are less likely to state being sick and indicate that there is a relationship between the nurses' job satisfaction and their tendency to quit or ask for a turn over. The study aims to determine the rate of absence from work and turnover among a group of nurses employed by a medical university in Tehran, Iran and to find any significant relationship between these factors and nurses' job satisfaction.

Methods: 610 nurses with a master degree in nursing working at internal medicine, surgery, obstetrics and gynecology wards, and intensive care unit (ICU) were enrolled. Data was gathered using the "Minnesota's Job Satisfaction Questionnaire".

Results: There were significant relationship between job satisfaction and 10 or more days of sick leave ($\rho<0.047$), times of having been reprimanded ($\rho< 0.003$), having been blamed due to choosing nursing as a career ($\rho<0.031$), the person who has blamed them ($\rho<0.001$), teamwork dividing method ($\rho<0.001$), spouse's job ($\rho<0.05$), and the reason for turnover ($\rho<0.006$). There was also a significant relationship between worklife quality and job satisfaction ($\rho<0.000$).

Conclusion: Since there are significant relationships between some of the factors affecting job satisfaction and the rate of nurses' absences and turnovers, it is advised that the management pay substantial attention to improving these conditions in order to increase the efficacy of staff and therefore increase the patients' satisfaction and ensure the highest quality of service.

Keywords: Nurse, Job satisfaction, Turn over, Absenteeism, Work condition

Introduction

Accurate assessment of the present condition plays a critical role in every planning and decision making of each enterprise which requires data on basic information of staff such as age, gender, qualifications, previous employment, etc. Due to special factors interfering with accurate assessment of human resources and since excessive turnover of staff puts a great financial pressure for training and hiring new staff, it is very important to do our best to achieve accurate analysis of the staff. Based on the reports published by the Nursing Society of the United States, the rate of nurses' displacements in USA is 32% and they have a 40% rate of job quitting. Studies in Chicago suggest that work force members who had fewer absences from work had a higher job satisfaction indicating the relationship between job satisfaction and leave-of-absences (1).

The costs of hiring and training new staff form a considerable part of each company's budget. 12% of

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the US gross domestic product (GDP) and 10% of UK GDP alone was spent on covering absences. 47,500 working days were wasted in Hong Kong due to illnesses(1). Several studies point to age, sex, and the history of employment as factors affecting the rate of absences from work. These factors have been shown in Canada plus familial conflicts and in China factors as physical and emotional diseases, stress, and depression as the causes of absence from work. Family conflicts make up almost 40% of leave-of-absences (2).Work-related stress is one of the factors mentioned as the cause of absence from work (3).

A theory in psychology suggests that absence from work is an unconscious response to job dissatisfaction and unfulfilled demands. The type of assignment can also be a major cause of dissatisfaction leading to absence. Working relations between nursing staff as a team becomes invalid as the rate of turnovers reaches above 60-70 percent in a year (1). A head nurse that manages to reduce the rate of absences in his 200 person staff from 4% to 2% may improve patient's satisfaction by providing better patient care services (1).

Replacing a nurse imposes a considerable cost on hospitals. On average, 60% of total hospital budget is spent on human resources. This expenditure is divided into direct and indirect costs for each individual personnel. Mean cost of replacement for a nurse has been estimated at $2,437.

In an organization that has a tendency towards firing personnel, lots of resources are spent on hiring new workforce. This in fact is one of the most critical leaks in budget (1, 4).

Ingerson et al., in a study in New York, with the goal to define the characteristics of nursing workforce and evaluate their job satisfaction and the level of their responsibility for their working environment, showed that after analyzing the questionnaires filled in by 1,853 nurses, their commitment to the organization and their job objectives for the next 5 years were among the factors affecting their job satisfaction which plays role in their future plans on whether to quit their job or to keep on (5).

A study in Iran, investigating the job satisfaction of nurses in Gorgan hospitals revealed that the majority of nurses (79.8%) have low and moderate job satisfaction. This study indicated significant relationship between job satisfaction and nurses' gender, age and work experience ($\rho \leq 0.05$). The female and those nurses with higher age and nursing work experience had maximum satisfaction (6).

This study evaluated the relationship between nursing staff job satisfaction and the rate of their absence from work, turnovers and their worklife quality.

Materials and Methods

This was a cross-sectional descriptive-analytical study in which the relationship between nursing staff job satisfaction and the rate of their absence from work, turnovers and their work life quality was studied. Study subjects included all nurses working in internal medicine, general surgery, ICU and obstetrics-gynecology (OB/GYN) wards (N=610 nurses) of hospitals affiliated with Iran University of Medical Sciences that were selected by census.

The researchers gathered data by referring to the university therapeutic vice-chancellor using a reference letter to gain access to employees' files and their absence from work records. Using this data including the rates of absences of all nursing staff in 2006-2007, and the list of all nursing staff occupied in the wards of Internal Medicine, Surgery, ICU and OB/GYN, those with a degree higher than master's in nursing were selected to be included in the study. Administers of nursing staff were excluded from the study. Data was gathered using the "Minnesota Standard Questionnaire on Job Satisfaction" (7). Some parts of the questions (1, 2, 3, 4, 7, 8, 9, 10, 11, 15, 16, 20) deal with internal factors related to occupation and some deal with external factors associated with occupation (5, 6, 12, 13, 14, 19). Question No. 17 assesses occupational situation (financial facilities, work physical condition, and fringe benefits) and question No. 18 assesses the behavior of coworkers with each other. The subjects were asked to mark their answer to each question from

1-5: 1 being "lowest" or "completely disagree" and 5 being "highest" or "completely agree". To determine the reliability and validity of the questionnaire, after being edited by the fellow researchers and the consulting statistician, the questionnaire was reviewed by 19 board members of Iran School of Nursing and Midwifery in terms of content and face validity. The comments helped the researchers to modify the tool and the revised version was confirmed. To verify the questionnaire's reliability, internal consistency was calculated using alpha-Cronbach (α=0.87).

Personal characteristics and the other factors affecting job satisfaction were extracted from the previous studies and from a questionnaire designed by Iranian Social Security Organization. Then these were added to this study after being approved by nursing administrators and academic staff. These additions consisted of the nurses' self-conception of nursing career and their families, spouses and friends' point of view about this matter, rewarding and punishing systems, supporting system, communication system and welfare services of the organization. There were 610 responses to 650 questionnaires sent out to the subjects. Data was analyzed using descriptive indices and the Chi-squared test, variance analysis (ANOVA), Pearson correlation coefficient, independent t-test, and Spearman correlation coefficient. SPSS 14 software was used for statistical analysis.

Ethical Considerations

This study was approved by the Ethics Committee of Iran University of Medical Sciences, Tehran, Iran and the hospital authorities' permission was sought as well. Questionnaires were anonymous and the participants' information was collected privately by the researchers.

The participants signed the written informed consent for voluntary participation in the study before completing the questionnaires.

Results

The majority of the nurses (77.5%) had average satisfaction with their job; 20 percent had low satisfaction and only 2.5 percent were highly satisfied. The mean of job satisfaction score was (2.69±0.48) (Table 3).

The rate of turnovers was 11.3% and the rate of absence from work was 11.8%. About 82.2% of the nurses had taken a leave of absence due to illness and 76.2% left for more than 10 days. The number of absences due to illness more than 10 days had also a relationship with job satisfaction (ρ<0.047). In 66%, a reason for absence from work was specified depicted in Tables 1 and 2. There was significant relationship between job satisfaction and the reason behind turnover (ρ<0.006).

Almost one-third of the nurses were official employees of the university. Most of them (69.8%) were between 29 and 34 years old and 88%were female and their spouses had diploma or lower educational degrees. 43.9% of the nurses' spouses were physician or pharmacologist while the others were either office worker or experts in other fields. 47.4% had two children and 44.2% had only one child. All the nurses had an educational degree of Master's in Nursing. Almost half (43.2%) of the nurses had a monthly income of 3,500,000 Rials (350 US$). 48.1% of them paid rent and 46.2% of them were living at far distances from their workplace. 33.6% of them estimated the time form home to hospital between 30-60 minutes.

More than half (55.7%) of the nurses wanted to retire after 20 years of service. 21.4% of nurses had filed a request for turnover, 57.4% of which were due to long distance between their home and their workplace.

57.4% of the research subjects were employed as nurses in wards. 30% of them had a history of 6-10 years of employment. Most of the nurses (69.5%) had an experience of 1-5 years in their current position. 72.2% had rotating shifts and 54.6% were occupied in surgery wards. More than one third of them (38.3%) put their children in day-cares.

The effectiveness of more than half of the nurses (51.4%) was criticized by the head nurses. Most of

them (62.9%) had been blamed regarding choosing nursing as a career, mostly (29.9%) by their colleagues. 57.1% of the nurses were rewarded in writing mostly (78.1%) once or twice. Almost no one (95%) was punished before.

Table1. The correlation between Job satisfaction, turn over, absence and nurses demographic and work variables

	Pearson correlation	P-Value
Turn over with work absence	**0.133	>0.005
work absence days and income	**0.535	>0.002
Work absence days and age	*0.383 -	>0.026
Sick leave days and age	**0.901	>0.001
Total work experience and income	**0.246	>0.001
Total work experience and experience of the current position	**0.713	>0.001
Times of having been reprimanded and job satisfaction	**0.459	>0.003
Number of children and age	**0.748	>0.001
Job satisfaction and worklife quality	**0.182	>0.001

*correlation significant at 0.05 level (2-tailed),

**correlation significant at 0.01 level (2-tailed)

Table 2. Mean distribution, factors influencing job satisfaction and rate of correlation of variables of study

Statistical indexes Job satisfaction	Mean±SD	ANOVA test
In proportion to cases of absences	1.14±0.84	P= 0.38, F= 0.76, df= 1
Cases of Turnovers	1.72±0.76	P=0.83, F=0.048, df=1
Marital status	2.68±0.47	P=0.93, F=0.64, df=2
Position	2.69±0.48	P=0.95, F=0.43, df=2
Working shift	2.69±0.48	P=0.13, F=1.87, df=3
Ward	2.69±0.48	P=0.057, F=2.31, df=4
Based on household chores	2.69±0.49	P=0.99, F=0.036, df=3
According to distance from their housing	2.69±0.48	P=0.18, F=1.70, df=2
According to sex	2.69±0.48	P=0.38, F=0.78, df=90

Table 3. Mean frequency distribution of Job satisfaction rate according to study variables

Statistical indexes Variables		Mean±SD	Number	Mean±SD	Total number
Job satisfaction	Internal factors	2.92±0.55	610	2.69±0.48	610
	External factors	2.29±0.48	610		
Work condition	Quality of working life	2.58±0.39	610	2.58±0.39	610
Position	head nurse	2.67±0.49	43	2.69±0.48	584
	Nurse responsible for the shift	2.84±0.48	206		
	Nurse	2.69±0.48	335		
Marital status	single	2.67±0.43	251	2.68±0.47	559
	married	2.69±0.50	292		
	other	2.66±0.50	16		
Distance from housing	near	2.72±0.48	228	2.69±0.48	584
	far	2.69±0.50	270		
	out of the city	2.73±0.41	86		
Work shift	morning	2.68±0.47	103	2.69±0.48	605
	evening	2.38±0.30	13		
	night	2.70±0.43	52		
	switching	2.70±0.49	437		
Ward type	Internal Medicine	2.69±0.50	127	2.69±0.48	445
	surgery	2.74±0.45	243		
	ICU	2.48±0.66	16		
	OB-GYN	2.53±0.51	29		
	other	2.63±0.35	30		
Type of housing	landlord	2.70±0.48	236	2.70±0.49	557
	rent	2.70±0.50	268		
	lease	2.67±0.45	39		
	other	2.70±0.47	14		

Discussion

The majority of nurses (77.5%) had average satisfaction with their job while 20% stated to be dissatisfied with their jobs and 2.5% to be satisfied with their jobs. The results show that the job satisfaction rate among the nurses was 2.96±0.48. 20% of the specialized centers and 32.1% of general centers revealing their dissatisfaction with their jobs.

Managers should consider nurses replacement based on their interest and skills and this information should be used during the interview.

In the present study, the number of absences due to illness more than 10 days had also a relationship with job satisfaction. Job satisfaction has been cited as a major contributory factor to intention to stay in the international nursing literature (8). The reasons for which they had filed a request for turnover were work overload and misbehavior of the administrators that was also related with how satisfied they were with their jobs. Similarly, Chen et al. (2008) confirmed the earlier findings on the relationships between major turnover determinants, job satisfaction, and intention to stay (9). According to Hellman (1997), increasing dissatisfaction in employees results in a higher chance of considering other employment opportunities (10). Seccombe and Smith (1997) found that the factors given by nurses as reasons for leaving were centered on the issues known to affect job satisfaction such as ineffective supervisory relationships and poor opportunities for professional development, rather than external labor market forces which managers would justifiably feel unable to control (11).

As nurse managers influence nurse satisfaction, absences and turnover, it is suggested that future research consider the role of the nurse manager, the context where management turnover occurs and the costs of nurse manager turnover and absences (12, 13).

According to their methods of employment, 23.1% of conventional employees, 23.9% of community service providers and 16.5% of official employees were among the nurses who did not have job satisfaction.

In all of the tables, satisfied nurses form a small part (<10%) of the study population. Lower satisfaction rate in men compared with that in women was seen as expected. Clark et al. explained this difference in a study by pointing to this fact that men form a smaller portion of nursing society and the point that men have higher goals and expectations in their jobs. Men also have a better and stronger family support. The traditional view of society about male nurses and nursing and the power of maternal instinct in this field of career may also play a major role in this matter (14).

The number of punishment had a direct correlation with job satisfaction, meaning that as the number of punishments increased, nurses' job satisfaction decreased. Those nurses stating to be blamed for their poor choice of career were not satisfied with their jobs and this dissatisfaction was stronger in those blamed by their parents or their colleagues.

In working eco-systems, the supervisors or head nurses probably represent the ethics and morality of that organization, and those who manage to involve their staff more in decision-making processes and encourage them to form a two-way interactive relationship, seem to be able to establish a much desirable environment around their nursing team. This environment reduces the amount of quarrels and arguments between the staff and mends non-working relationships (15).

Job satisfaction level had a significant relationship with workload distribution methods. Those acting as a team had a lower job satisfaction especially since the nurse-to-bed ratio was less than 1, which puts lots of pressure on nurses. Also since young forces themselves in need of training were part of each team, each nurse had to spend some energy on getting these forces to work properly. All these reasons would lead to increase in illness-related absences (1).

The findings of some studies have shown that teamwork plays a significant role in determining job satisfaction (16). Head nurses and their assistants are the most satisfied (m=2.80) while nurses are the least satisfied (m=2.59) members of nursing community, which is compatible with some findings of this study.

There is a vivid relationship between job satisfaction and the will to quit job. It shows that as their satisfaction grows, their will to let go gets lower (15).

The highest level of job satisfaction among the study variables was seen in nurses who were responsible during shifts (2.84 ±0.48), fixed nurses of night shifts (2.70 ±0.43), rotating shifts (2.70±0.49) and those working at surgery wards (2.74± 0.45). Also the lowest level of job satisfaction was seen in "Nurse" position (2.69± 0.48), morning shift (2.68±0.47), ICU nurses (2.48±0.66) and Ob-Gyn nurses (2.53±0.51).

Boyle et al. found that emergency nurses and surgery wards nurses had the lowest job satisfaction (17). In the study by Adams & Bond in 2000,it was shown that organizational characteristics rather than individual personalities of nurses are more important in determining job satisfaction (18).

Since most of the nursing cares ordered by physicians are done in morning shifts and in the presence of medical students during this shift, lower job satisfaction level was seen among morning shift nurses. Unfortunately, these factors were not assessed here.

Conclusion

The findings for hospital executives and nursing managers are helpful in designing effective policies designed for organizational & employees' needs. Nurses low job satisfaction, absence from work, and turnover continues to present serious challenges at all levels of health care delivery system. Longitudinal research is needed to produce new evidence of the relationships between nurse's job satisfaction and turnover and the related costs, and the impact on patients and the health care team.

As this study revealed, most complaints regarding nurses' efficacy was from the head nurses, which brings out dissatisfaction. This calls for educational courses on professional behavior and communications skills.

The guidance tool for choosing nursing as a career was mostly friends and programs provided by schools during high school. Books, journals and media had no significant role as guidance for the nurses. It is obvious that those being rewarded in writing had a higher satisfaction rate. It is strongly advised that the administrators use it wisely. To appreciate the employees as stated by Herzberg should be considered by the managers

In order to reduce the rate of turnovers, the administration should plan wisely to consider the needs and act smartly upon hiring new staff in order to employ people with specific skills and qualifications that they need.

We recommend frequent conduction of inter-departmental research with the help of Vice-chancellor of Treatment Office, Nursing Research Center and the School of Nursing. Using these studies, you may evaluate the factors affecting job satisfaction at any time, giving you the chance to intervene if necessary. Keeping your staff satisfied guarantees higher efficacy and better patient care.

Conflict of interests

The authors declare that they have no competing interests.

Author's contributions

E. Jafar Jala was involved in the study conception, design and analysis/ interpretation of data, critical revisions for important intellectual content and review of content. F. Hajibabaee was involved in the acquisition of data, analysis/ interpretation of data, drafting of the manuscript and review of content. M. Farahaninia was involved in the study conception, design and material support. S. Joolaee was involved in the critical revisions for important intellectual content and review of content. F. Hosseini provided statistical technical support.

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