

The impact of environmental and demographic factors on nursing job satisfaction

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Abstract

Objective: This study aims to evaluate all aspects of job satisfaction in registered nurses working in different hospitals in Shiraz, Iran.

Methods: This cross-sectional study was performed during February to August 2015 in Shiraz, Iran. It comprised of 371 registered nurses working in government and private hospitals using multi-stage cluster sampling. Job satisfaction was evaluated using 5 items of the Job Descriptive Index (JDI) consisting of 63 questions developed by Smith, Kendall, and Hulin (1969). Statistical tests including independent sample t test and one-way analysis of variance (ANOVA) were used in order to identify the relation between job satisfaction, and demographic features and work environment. Data were analyzed by SPSS version 15.0, using descriptive statistics, independent-samples t-test, and ANOVA.

Results: Our findings showed no relationship between demographic variables and job satisfaction. However, a significant association was observed between environmental aspects such as work rotation (fixed versus rotating) nurse's status (staff vs. supervisors), type of hospitals (governmental vs. private) and work ($p < 0.01$), promotion ($p < 0.02$) and pay ($p < 0.01$) items respectively; however, type of hospital was deemed exempt regarding promotion. Also regarding the number of shifts per week, nurses with more than eight shifts present a lower mean score of satisfaction about pay significantly ($p = 0.03$).

Conclusion: The results concerning younger nurses have different types of satisfaction based on several environmental factors. Nurses' policy makers must pay more attention to nurses' satisfaction and focus on reducing the various inequalities.

Keywords: Job Satisfaction, Nurse, Hospitals, Iran

1. Introduction

Job satisfaction depicts how content an individual is with his or her employment (1). The traditional model of job satisfaction concentrates on every one of the emotions that an individual has about his/her employment (2). The level of satisfaction of an employee reflects his/or her behavior and attitude towards the job and the degree of commitment to the organization concerned (3, 4), and affects citizenship and in-role behavior (5). The main theory

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that is related to job satisfaction is Maslow's five-level hierarchy. The hypothesis recommends that human needs, frame a five-level progressive system comprising of: physiological needs, security, belongingness/love, regard, and self-actualization (1, 2, 6). According to Maslow, the fundamental needs of an individual include air, food, clothing, and shelter which are crucial for survival or physiologic needs (6). But human needs do not stop at this level and second to fulfilling the level 1 needs, humans think about security and further necessities of high demand. Another main approach in job satisfaction is Herzberg's motivator-hygiene theory also called the two-factor theory, which represents a number of motivations. These include challenging work, recognition of one's achievement, responsibility, opportunity to do something meaningful, involvement in decision making, sense of importance to an organization which leads to positive satisfaction and status, job security, salary, fringe benefits, work conditions, good pay, paid insurance, vacations are hygiene factors, which occur if there is no job satisfaction (7, 8). Generally, this theory is based on two hypotheses that include the following factors: 1) those causing positive job attitudes that are different from factors creating negative attitudes; 2) the factors and the performance or personal effects have association with sequences of job events over a long time period differ from those of short duration (9). This theory underscores the enrichment of employees (10). The healthcare system as a broad organization is affected by job satisfaction (11-13). One component in this system is nursing care which is the focus of extensive studies and associated with potential labor shortages that affect patient care and its accompanying costs (13), quality of care (14, 15) burnout (7, 16), and intent to leave work (17, 18). Nursing is recognized as one of the professions that is highly susceptible to burnout (19, 20) and job dissatisfaction (7). Recent studies showed that job satisfaction is associated with age (13, 21), length of experience (21, 22), marital status (22) and pay (18). Also, it has been shown that work-to-family conflict has a mediating role between job satisfaction and turnover intention (23). However, there is little knowledge about the relationship between satisfaction and environmental factors in Iran. In this study, we aim to evaluate association between aspects of job satisfaction and demographic and environmental characteristics in registered nurses in Shiraz, Iran.

2. Material and Methods

2.1. Research design and participants

This is a cross sectional study that was done in Shiraz, Iran from February to August 2015. The participants included registered nurses in governmental and private hospitals. The study population in this study included all of the nurses working in all of the wards in both government and private hospitals in Shiraz, Iran. According to a report provided by the Department of Nursing at Shiraz University of Medical Sciences, nearly 6,500 nurses were currently working at hospitals in this city. According to the table defined by Morgan and Krejcie (24), 371 subjects were selected for the study. Multi-stage cluster sampling of 6 governmental (with 6 wards) and 5 private hospitals (with 5 wards) were done. The main inclusion criteria was that all nurses except those who had work experience less than one year were included in the study.

2.2. Instrument and data collection

The data were collected using two questionnaires, one including demographic features and the other, job environment. The Job Satisfaction questionnaire was a customized inventory produced according to Job Descriptive Index (JDI) developed by Smith, Kendall, and Hulin (1985) (25) where job satisfaction included 5 separate items as work, pay, promotion, opportunities, co-workers, and supervision (26, 27). According to JDI, job satisfaction was determined by measuring satisfaction through 5 aspects comprising job, the quality of work (22 items), pay (9 items), promotion (7 items), supervision (14 items) and co-workers (11 items). The items are presented as statements evaluated by marking the alternative that seems closest to one's experience on a scale from 1 to 5. The lowest (dissatisfied) and the highest (very satisfied) satisfaction scores were presented as 1 and 5, respectively. Internal validity of 5 aspects were checked and results presented as 0.890, 0.956, 0.889, 0.952, and 0.892, respectively. For ensuring validity, face validation was also used. Two MSs were responsible for collecting data. They distributed the questionnaires and nurses completed them.

2.3. Data analysis

The analysis of data were conducted by SPSS version 15 (SPSS Inc., Chicago, Illinois, USA), using descriptive statistics (mean and standard deviations), independent-sample t-test (in order to compare sex, marital status, rotating shift work, type of hospital and total job satisfaction), and ANOVA (in order to compare age groups, education levels, work experiences, and type of wards with total burnout and subgroups scores). A two-tailed p-value less than 0.05 was considered as the level of statistical significance.

2.4. Research ethics

Ethical principles of Helsinki declaration and American Sociology Association were considered in this study and the ethics committee of the institute approved the study (Ref. no.: 93-01-01-8365).

3. Results

Results showed that 371 people participated in this study, of whom 40 (18.9%) were males and 331(81.1%) were females. Regarding training, 24 (8.6%) individuals had completed high school as nursing assistants, 337 persons (85.3%) held a bachelor's degree, and 16 (5.8%) had a master's degree. In addition, results showed 169 (61%) people were married and 107 (36.6%) persons were single, while only one (0.4%) person was divorced. Table 1 shows that the mean and standard deviation of job satisfaction items, which include work, supervision, co-worker, promotion, and pay are 58.5 ± 16.9 , 53.8 ± 12.8 , 37.8 ± 9.8 , 16.9 ± 7.7 , 19.4 ± 7.8 , and 18.6 ± 7.0 , respectively. Results showed that there was no association between demographic factors and job satisfaction (Table 1). Regarding environmental factors, results showed that there was significant association between rotating shift and work ($p=0.008$), promotion ($p=0.02$) and pay ($p=0.01$) items of job satisfaction, where the score of nurses with fixed shift (64.5 ± 15.0) was higher than that of nurses with rotating shift (57.3 ± 16.9). There was significant association between status at work (staff or supervision) and work ($p=0.001$), promotion ($p<0.001$) and pay ($p=0.001$) items of job satisfaction. In this item, staff nurses gained less score (56.7 ± 17.0) than supervisors (64.9 ± 13.3). Regarding the number of shifts per week it was in association with the pay item ($p=0.03$). As for type of hospital (governmental vs. private), there was association with work ($p=0.01$) and pay ($p<0.001$) items. In this variable, nurses of private hospitals had more score (62.5 ± 17.8 , 21.4 ± 6.7) than those in governmental hospitals (57.2 ± 16.4 , 17.7 ± 6.9) respectively, to work and pay items.

Table 1. Association between demographic factors and job satisfaction items

Demographic factors		Job satisfaction items									
		Work		Supervision		Co-workers		Promotion		Pay	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Age (year)	20-29	59.0	16.4	53.2	12.5	38.4	9.5	17.1	7.3	19.9	8.0
	30-39	57.0	16.8	54.3	13.2	37.1	9.4	16.6	7.9	19.5	7.7
	>40	60.0	17.3	56.0	12.1	38.7	10.4	17.5	8.2	18.8	7.6
p-value		0.498		0.450		0.443		0.736		0.719	
Sex	Male	57.8	16.5	51.0	12.5	39.9	9.7	15.6	7.2	18.7	7.9
	Female	59.9	16.3	54.8	12.3	37.2	9.6	17.0	7.6	18.9	7.7
p-value		0.795		0.072		0.147		0.183		0.456	
Education	High school graduate	60.2	17.5	52.4	14.4	36.0	10.3	17.5	6.1	19.3	6.8
	Bachelor degree	58.4	16.7	54.2	12.6	38.1	9.8	17.0	7.8	19.5	7.9
	Master degree	55.5	19.3	50.0	14.1	36.6	10.1	14.9	8.3	18.8	8.9
p-value		0.673		0.340		0.456		0.452		0.928	
Marital status	Married	58.7	17.0	53.8	13.5	37.0	9.8	16.9	7.8	19.2	7.6
	Single	57.4	16.5	54.2	11.5	39.0	9.7	16.6	7.5	19.7	8.2
p-value		0.502		0.777		0.079		0.716		0.631	
Work experience (year)	≤5	57.6	14.7	53.1	12.4	38.1	9.3	17.0	6.7	19.4	7.3
	6-15	57.7	18.2	54.0	12.9	37.2	9.8	16.2	8.1	19.6	8.4
	>15	62.7	18.4	54.7	13.3	38.2	10.1	18.5	8.5	19.4	7.6
p-value		0.180		0.724		0.693		0.199		0.963	

Statistical method: independent-samples t-test was done for examining association between job satisfaction items and sex and marital status. In addition, one-way ANOVA was used for examining the association between job satisfaction items and age, education, and work experience (years). * $p<0.05$. ** $p<0.01$

Table 2. Association between environmental variables and job satisfaction items

Demographic factors		Job satisfaction items									
		Work		Supervision		Co-workers		Promotion		Pay	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Rotating shift work	Fix	64.5	15.0	54.3	12.6	37.6	10.5	19.2	7.7	22.0	7.3
	Rotation	57.3	16.9	53.9	12.9	38.0	9.6	16.5	7.6	19.0	7.8
p-value		0.008**		0.859		0.770		0.022		0.016*	
Status at work	Staff	56.7	17.0	53.4	13.0	37.7	9.7	16.1	7.3	18.9	7.6
	Supervision	64.9	13.3	55.0	12.7	37.7	10.4	20.3	7.9	22.7	7.1
p-value		0.001**		0.404		0.992		<0.001**		0.001**	
Type of ward	Emergency	59.0	19.7	51.1	12.3	39.2	10.9	18.0	8.5	21.3	10.0
	ICU or CCU	56.5	16.3	54.2	13.2	37.8	9.1	16.4	7.4	19.5	8.0
	Internal	55.3	15.7	51.7	12.8	36.3	9.5	16.7	7.8	17.3	6.1
	Surgery	61.5	16.4	55.4	12.6	37.7	10.9	16.6	7.9	18.5	6.8
p-value		0.128		0.235		0.647		0.661		0.105	
Number of shift per week	≤6	60.9	16.7	53.7	14.0	36.5	10.6	17.4	8.0	20.5	7.8
	6-8	57.3	15.9	53.4	11.9	38.1	9.2	16.8	7.5	19.4	7.8
	>8	59.8	21.3	58.2	15.8	40.6	10.2	16.5	7.7	15.8	5.9
p-value		0.267		0.195		0.161		0.792		0.034*	
Type of hospital	Government hospitals	57.2	16.4	54.1	12.9	37.7	10.3	16.5	7.4	18.3	7.1
	Private hospitals	62.5	17.8	53.0	12.8	38.1	8.4	18.1	8.3	22.6	9.1
p-value		0.019*		0.467		0.732		0.094		<0.001**	

Statistical method: independent sample t test was done for examining association between job satisfaction items and rotating shift work, status at work, and type of hospital. In addition, one-way ANOVA was used for examining the association between job satisfaction items and type of ward and number of shift per week. * $p < 0.05$. ** $p < 0.01$

4. Discussion

In this study, we aimed to evaluate the relation between demographic and environmental variables and 5 job satisfaction scales in Shiraz, Iran. Results showed that not all demographic variables such as age, sex, education, work experience, and marital status were associated with job satisfaction scales, thus rejecting the first hypothesis. This finding is comparable with findings of Purpora and Blegen, which showed no statistically significant differences in job satisfaction between gender ethnicity, basic registered nurse education, highest degree held, size of hospital or clinical field (28). In regard to demographic variables, the results of several studies are consistent with our findings. Significant association has been demonstrated between age, length of service, and marital status and job satisfaction among Chinese nurses (22). Also, there were relationships between job satisfaction and length of career in Korean nurses working in an emergency medical center (21), and between job satisfaction and age among nurses in Oman (13). The reasons behind this discrepancy may be that job satisfaction in this study is related to environmental factors more significantly than to demographic variables. On the other hand, job satisfaction is related to organization characteristics and specifically to relationship between nurses and their work, supervisors, opportunities and job benefits. As mentioned, evaluation of environmental variables showed significant association between quality of shift work, work status, the number of shifts per week, job, promotion and the pay scales. Nurses with fixed rotation and supervision status have significantly higher job score, promotion and pay compared to nurses on shift rotation and staff position. On the other hand, a relationship was observed between the number of shifts per week and pay scale. In this connection, the nurses who covered more than eight shifts per week had lower score in pay than those having less shifts. In the context of study nurses with fixed shifts, supervision status and equal or less than six shifts are included in managers group. The people in this group not only have more opportunities in the system but also have higher salary and benefits. They also have hidden benefits enabling them to plan for their future, take holidays, and enjoy environmental privileges. Because of having no night shift, they have less psychological problems than other nurses. Therefore, nurses on fixed shifts, specifically morning shifts, have high opportunities regarding pay, promotion and other environmental privileges. In this context, significant differences in job, pay and promotion create basic inequity and dissatisfaction among nurses. In other words, those who work more have less benefits and salary. On the other hand, job status has a similar situation to work rotation shift. In this variable, the higher the position leads to a higher job level, promotion and pay. Supervision status has a high score in

job satisfaction scales. Concerning the number of shifts per week, results showed that the nurses with more than eight shifts per weeks have significantly less mean score in pay. And finally, results showed that nurses in governmental hospital have significantly less mean score in relation to job, promotion and pay than those working in private hospitals. Considering these findings, job satisfaction is determined by salary and benefits. Results in this part are comparable to some and incomparable to other variables reported by several studies. They showed association between shift work (12), pay (18) extrinsic rewards (12) and job satisfaction among nurses. On the other hand, another study in a nursing school showed that salary is a significant indicator of job satisfaction (29), although no significant relationship was found between gender and job satisfaction (28). Contrary to our findings, several studies showed that other variables such as age (12) work experience (21, 22) marital status (22) peer relationship (28) and demographic variables (29) were associated with job satisfaction. The results showed that regarding job, promotion and pay, nurses of governmental hospitals had significantly less mean score than those in private hospitals. It is also known that pay in governmental hospitals is higher than that of private hospitals. Nurses in private hospitals have a prejudice; their salaries are set according to law, while governmental nurses expect to have benefits proportionate to physicians. Therefore, we can conclude that inequity is the main problem of nurses in governmental hospitals, and influences their dissatisfaction. It is recommended to conduct more research in this regard. According to discussion on a theoretical level, it can be said that environmental factors in Herzberg's theory more emphatically refer to the hygienic elements as do physiological needs in Mazola's view. On the other hand, inequity, which was significantly shown in relation to governmental nurses, corresponds to higher-level needs in Mazola's view. Accordingly, nurses in governmental hospitals engage in the healthcare system, and believe that an unequitable system results from unequal distribution of opportunities and benefits.

5- Limitation and recommendation: The main limitation of this study was that it was carried out shortly before designing the Ghasedak plan, aimed to redefine the payment system for all employees in governmental hospitals, where the first payment of the new plan was paid to nurses following the release of the result of this study in Jul 2015. Despite the rise in salary, the inequality was evident among nurses' groups including staff nurses, supervisors, and nursing assistants. Therefore, further study is warranted to introduce a new plan in relation to benefit and payment.

5. Conclusions

The findings of this research indicated an association between some environmental characteristics and job satisfaction. Significant relationship was found between the type of rotation shift, nurses' status and governmental registration and work, pay and promotion. Also, nurses with more than eight shifts per week, gain significantly less score in pay, a situation demanding the attention of nursing authorities to promote nurses' job satisfaction. On the other hand, healthcare authorities must address inequity in salary and benefits in the healthcare systems to reduce job dissatisfaction among nurses as well as other healthcare providers.

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Conflict of Interest:

There is no conflict of interest to be declared.

Authors' contributions:

All authors contributed to this project and article equally. All authors read and approved the final manuscript.

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