

Intrinsic and extrinsic determinants of job satisfaction in the nursing staff: A cross-sectional study

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ABSTRACT

As for any member of the healthcare team, nurses' job satisfaction plays a key role in system productivity and patient safety. The present study aimed to identify nurses' intrinsic and extrinsic job satisfaction in academic hospitals of the Iran University of Medical Sciences (IUMS). 640 nurses were recruited between October 2011 and July 2012 to evaluate their job satisfaction in a cross-sectional study. The Persian version of the *Minnesota Satisfaction Questionnaire (MSQ)* was utilized for measurement, and data analysis was performed using the Statistical Package for Social Sciences (vs. 16). More than 50% of the participants were "very dissatisfied" with payments and long working hours; only 11% were "very satisfied" with the feeling of accomplishment and only 1 participant was "satisfied" with working conditions. The overall results show low job satisfaction among nursing staff in one major academic institute. We suggest further probing into the inherent factors that measure satisfaction; we also recommend more attention to be paid to the management of healthcare personnel and specifically nursing staff to ascertain the quality of patient treatment.

Keywords: healthcare, job satisfaction, nursing, patient care team, systems.

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Introduction

Human resource is considered as the most important asset to any organization; the value of the human capital is inferred critical in development and progress of the goals of the system (1). Modern management theories assert two key goals in the management of any system: (i) offering adequate service and (ii) bringing job

satisfaction to employees (2). Previous researches propose several operational definitions for 'job satisfaction' based on various theoretical backgrounds (3); one of which explains it as "the feeling an individual experiences when s/he is carrying out a job (4).

Herzberg and his colleagues have introduced five determinants of job satisfaction in their work:

8 Job satisfaction in nursing team

recognition, responsibility, advancement, achievement, and work itself. To build up a theoretical framework, they suggest that recognition, work task, and responsibility should be considered as intrinsic parameters; while 'hygiene factors' including supervision, working condition, co-workers, compensation, policies and procedures, status, personal life, and job security are considered as extrinsic factors. Herzberg's two-factor theory of job satisfaction has gained popularity as a framework for research on job satisfaction, and a basis for assessment and improvement of job satisfaction among nurses. Developing this preliminary theory for job satisfaction, a wide range of quantitative analysis, as well as qualitative studies, have been reported on the sources of job satisfaction among nurses (5).

Nursing is known as a demanding profession and a fundamental component of the healthcare system. Other than their clinical responsibilities, nursing staff also engage in medical education, management, coordination, and research; hence, their satisfaction with their career affects system productivity in large scales (6-9). Analysis of 'job satisfaction' among nursing staff is crucial in understanding the existing gaps in achievement of higher levels of quality of care and patient safety (7). Moreover, knowledge on determinants of job satisfaction will aid management systems in the recruitment of more committed nurses and subsequent higher staff retention (10). Better patient care is a direct outcome of high job satisfaction rates among nursing staff, whereas their dissatisfaction leads to a shortage of staff with a knock-on impact on nurse-patient ratios, longer patient waiting lists, and burn-out among healthcare personnel (11-15).

There have been various studies on job satisfaction among nurses most of which are theoretical models proposed in developed countries. This raises the question as to what extent these models are applicable and relevant to other countries (16). The present study aimed to address the regional gap; the intrinsic and

extrinsic determinants of job satisfaction among the nursing staff in an academic setting were assessed and extracted in order to expand our local database on job satisfaction.

Materials and Methods

Design & Participants

The intrinsic and extrinsic determinants of job satisfaction in the nursing staff of the hospitals affiliated with the Iran University of Medical Sciences were evaluated. Participants were selected during October 2011 and July 2012 through a census. There were 640 registered nurses with at least a bachelor degree who were active in various hospital wards (internal medicine, general surgery, intensive care unit ICU), and obstetrics-gynecology (OB/GYN)).

Measurement tools

To achieve the study objectives, data were gathered using the short version of the Minnesota Satisfaction Questionnaire (MSQ) (17, 18). MSQ comes in two forms: a 100-item long version and a short version. The short one covers 20 items many of which are more specific than most other satisfaction scales (7). Determinants of intrinsic job satisfaction in MSQ include activity, independence, variety, advancement, recognition, moral values, achievement, social service, authority, ability utilization, creativity, responsibility, and achievement. These are represented on the scale by items 1-4, 7-11, 15, 16, and 20. Determinants of extrinsic job satisfaction are company policies, social status, compensation, supervision-technical, supervision-human relations, and security. These are represented on the scale by items 5-6, 12-14, and 19. Item 17 assesses the occupational situation (financial facilities, physical work condition, and fringe benefits) and item 18 evaluates interaction with colleagues. Answers are based on a 5-point Likert scale ranging from "not satisfied" (score: 1) to "extremely satisfied" (score: 5). Therefore, the total score for each questionnaire varies from 20 to 100. If the total score varies somewhere

between 20 to 45, it is equivalent to having a low job satisfaction, whereas getting a score above 75 is equivalent to having a high job satisfaction—having a score between 45 to 75 is assumed to be similar to having an average job satisfaction.

Validity & Reliability

After initial translation and revision of MSQ, we ensured the face and content validity of the questionnaire by consulting 19 board members of the Department of Nursing and Midwifery. This instrument has been used in other studies and proved to be reliable with a Cronbach's alpha reported higher than 0.88 (8-12). Accordingly, MSQ offers a reliable method for studying job satisfaction in a variety of different fields. Also, to verify the reliability of the questionnaire, internal consistency was calculated using Cronbach's alpha ($\alpha=0.87$).

Other than the MSQ items, general and demographic characteristics and other factors predicted to affect job satisfaction based on previous studies were collected by self-reports such as the viewpoints of the families, spouses, and friends of the nursing staff on nursing career, as well as rewarding and punishment system, support system, communication system and welfare services of the organization.

Analysis of data

Qualitative data were analyzed according to their frequency distribution and the quantitative data were interpreted with the mean and variance of the sample. Data were interpreted using descriptive indices, Chi-squared test, analysis of variance (ANOVA), and Pearson correlation coefficient. SPSS 16.0 was used for statistical analysis. The possibility of having symmetry or lack of symmetry in data distribution was analyzed by measuring the skewness factor (13). Kurtosis factor was measured to see whether the data are peaked or flat relative to a normal distribution (14).

Ethical Considerations

The protocol of the study was approved by the

Ethics Committee of the Iran University of Medical Sciences (grant number: 670). The study was designed and implemented in line with the Helsinki Declaration. Participants were assured regarding the confidentiality of their recorded information and all of them provided written consent after explanation of the objectives of the study.

Results

In total, 610 from 640 registered nurses participated in the study. The mean age was 32.89 (SD=5.9; minimum=22, maximum=55). The majority of participants were in the age range of 30 to 39 years, female and married. The median years of experience for participants was calculated to be 8 years. Other demographic characteristics of the nursing staff are indicated in Table 1.

The level of job satisfaction according to the Persian version of the Minnesota Satisfaction Questionnaire (MSQ) was assessed; more than 50% of nurses were "very dissatisfied" with payments and long working hours (50.7%); only 11% were "very satisfied" with the feeling of accomplishment and only one was "satisfied" with the working conditions; more details are indicated in Table 2.

Measures of job satisfaction according to the index of dispersion (Likert scale) and range of scores (0-100) are indicated in Tables 3 and 4. The strength of the linear relationship between the variables was calculated using the Pearson correlation. To check our statistical hypothesis of finding a relationship between job satisfaction and intrinsic, extrinsic, and demographic parameters, regression analysis was performed and also the p-value function for each of the variables was measured ($P<0.01$). No significant relationship was found between job satisfaction and intrinsic and extrinsic factors ($P<0.01$) (Table 4).

Discussion

We conducted a cross-sectional study to describe the role of intrinsic and extrinsic factors contributing to job satisfaction among nurses. The

10 Job satisfaction In nursing team

results of our study revealed that the majority of the nursing staff had an average level of job satisfaction (77.5%); one-fifth of the nurses had low satisfaction, whereas only 2.5% were highly satisfied with their job. The large size of the participants is a main strength of the present study. Also of importance is the wide coverage of sample selection throughout different demographic groups.

Job satisfaction among nursing staff has also been assessed in other countries; the highest rates have been reported in the United States (41%), Scotland (38%), England (36%), and Canada (25%), respectively (19). Several studies in South Africa indicated that job satisfaction depends on the nursing group, gender, age, type of responsibility, salary, working condition as well as the working environment (20-22).

Table 1. Demographic characteristics of a sample of nurses from different hospital wards affiliated with Iran University of Medical Sciences

Qualitative Sample characteristics		N	%
Age group	20-29	49	17.4
	30-39	197	70.1
	40-50	35	12.5
Gender	Male	73	12.0
	Female	536	88.0
Marital status	Single	251	44.9
	Married	292	52.2
	Other	16	2.9
Type of housing	Landlord	236	42.4
	Rent	268	48.1
	Lease	39	7.0
	Other	14	2.5
Average travel time to work	15-30	137	23.3
	30-60	197	33.5
	>60	193	32.8
	>120	61	10.4
Position	Supervisor	0	0.0
	Head nurse	43	7.4
	Nurse resp. for the shift	206	35.3
	Nurse	335	57.4
Work shift	Morning	103	17.0
	Evening	13	2.1
	Night	52	8.6
	Switching	437	72.2
Ward type	Internal medicine	127	28.5
	Surgery	243	54.6
	ICU	16	3.6
	OB-GYN	29	6.5
	Other	30	6.7
Retirement (Year)	20 YR.	329	55.7
	25 YR.	148	25.0
	30 YR.	41	6.9
	<20 YR.	73	12.4

Total of nurses were general nurses B.S degree

Table 2. Level of job satisfaction according to Minnesota Satisfaction Questionnaire

MSQ questions	Very dissatisfied		Dissatisfied		Not satisfied Not Dissatisfied		Satisfied		Very satisfied	
	N	%	N	%	N	%	N	%	N	%
Being able to keep busy	12	2	142	23.3	141	23.1	205	23.6	110	18
The chance to work alone	67	11.0%	190	31.1%	155	25.4%	195	32.0%	3	0.5%
The chance to do different things	57	9.3%	222	36.4%	229	37.5%	99	16.2%	3	0.5%
The chance to be somebody	35	5.7%	313	51.3%	145	23.8%	117	19.2%	0	0.0%
The way my boss handles workers	126	20.7%	311	51.0%	59	9.7%	99	16.2%	15	2.5%
Competence of my supervisor	138	22.6%	158	25.9%	201	33.0%	90	14.8%	23	3.8%
Being able to do things against conscience	84	13.8%	196	32.1%	202	33.1%	110	18.0%	18	3.0%
Steady employment	71	11.6%	187	30.7%	151	24.8%	166	27.2%	35	5.7%
Doing things for other people	33	5.4%	57	9.3%	126	20.7%	278	45.6%	116	19.0%
Telling people what to do	22	3.6%	101	16.6%	176	28.9%	227	37.2%	84	13.8%
Use of abilities	73	12.0%	96	15.7%	225	36.9%	187	30.7%	29	4.8%
Company policies are put into practice	66	10.8%	226	37.0%	209	34.3%	100	16.4%	9	1.5%
My pay and amount of work	309	50.7%	150	24.6%	94	15.4%	53	8.7%	4	0.7%
The chances for advancement	181	29.7%	227	37.2%	101	16.6%	74	12.1%	27	4.4%
Freedom to use my own judgment	69	11.3%	244	40.0%	153	25.1%	130	21.3%	14	2.3%
To try my own methods	62	10.2%	257	42.1%	191	31.3%	100	16.4%	0	0.0%
The working conditions	240	39.3%	231	37.9%	121	19.8%	17	2.8%	1	0.2%
Getting along with co-workers	49	8.0%	97	15.9%	181	29.7%	241	39.5%	42	6.9%
Praise for doing good job	139	22.8%	281	46.1%	86	14.1%	74	12.1%	30	4.9%
Feeling of accomplishment	65	10.7%	217	35.6%	109	17.9%	152	24.9%	67	11.0%

Table 3. Measure of job satisfaction according to index of dispersion (Likert scale)

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Job satisfaction	2.69	2.70	0.48	1.00	4.45
Internal factors	2.92	2.92	0.56	1.00	4.33
External factors	2.30	2.17	0.61	1.00	4.67

Table 4. Measure of job satisfaction according to index of dispersion (range: 0-100)

Variable	Mean	Std. Deviation	Minimum	Maximum
Job satisfaction	42.3668	12.03188	0.00	86.25
Internal factors	47.9577	13.90251	0.00	83.33
External factors	32.4795	15.15762	0.00	91.67

Experts argue that there is no meaningful relationship between socio-demographic characteristics (age, gender, marital status, type of employment, working unit, and years of service at hospital) and job satisfaction. However, there exists evidence for an existing relationship (23-25); Skinner et al. (2012) showed a negative correlation between age and job satisfaction; the older the nurses and midwives became, the more

likely they were satisfied with their job compared to younger ones (23); while another study in Iran showed the opposite (24). We suggest cultural differences may play a key role in the interpretation of the findings of the two studies. Adams et al. (2000) also suggest a strong correspondence between socio-demographic features and job satisfaction; they argued that age, gender, organization, working unit, and

12 Job satisfaction In nursing team

experiences of nursing staff are crucial in the interpretation of job satisfaction. Moreover, nurses between 31 and 40 years of age were more satisfied (by three times) compared to those between the ages of 20 and 30 years. This study also found that working unit impacts job satisfaction; nurses who worked in maternity wards had more satisfaction than the ones in other medical wards; also of note was that women were less satisfied than men, and nurses who were single were more likely to leave their institution compared to those who were married (25). In addition, nurses who worked at hospitals were less likely to leave their organization than those who worked at health care centers (26). Bagheri et al. (2012) also found that gender contributed to job satisfaction among a group of Iranian nurses; men were more likely to leave their jobs compared to women, but the level of education was not related to job satisfaction (27).

No significant relationship was found between leader's style/behavior and job satisfaction. However, in another study the majority of nursing staff reported dissatisfaction with their supervisors; they stated that their leaders and supervisors did not support them (28). Several studies have also revealed that respectful behavior of the managers and positive leadership are important in job satisfaction (26, 29-36). Lorber indicated that leader's personal characteristics including reliability, responsibility, teamwork, and integrity well related to job satisfaction (34).

Contrary to other studies, our findings showed no correlation between salary and job satisfaction. A study found that low salary negatively impacted job satisfaction and introduced financial stability as one of the most effective elements associated with job satisfaction (28). Another study also indicated that job satisfaction depends on many factors including salary, facilities, and working environment (34).

There are other influential factors that were not addressed in the present study. Several studies have regarded 'being trapped in daily

routine' as another influential factor on job satisfaction among nursing staff (23). Several studies reported 'autonomy' in association with job satisfaction (29, 32, 37-39). A study in Iran also showed three factors that positively influenced job satisfaction including interpersonal interactions, patient care and organized nursing task (27). Wilson et al. found workload problems and inability to complete nursing duties to be associated with poor quality of the provided care and consequently lower levels of job satisfaction (40).

This study provides significant evidence on the importance of the elements of job satisfaction among the nursing staff. We suggest that further detailed investigations on the influential factors shown in the present study will aid authorities through valuable information to develop appropriate interventions to improve job satisfaction in nurses. We recommend that public health policy makers and leaders consider additional measures to improve working conditions among nurses with regards to intrinsic and extrinsic factors, and socio-demographic differences.

Conflict of Interests

Authors have no conflict of interests.

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14 Job satisfaction In nursing team

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