

Job Satisfaction and External Effective Factors in Operating Room Nurses Working Educational Hospitals in 2015: A Cross-Sectional Questionnaire Study

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Abstract

Introduction and Aim: Identification of effective factors on job satisfaction can impact the efficiency and quality of health services and personal life. The Aim of this study was to investigate, Job Satisfaction and External Effective Factors in Operating Room Nurses Educational Hospitals of Zahedan in 2015.

Materials & Methods: This descriptive-analytical study was conducted on 137 operating room Nurses of Ali-Ebne-Abitaleb, Khatam-Al-Anbia and Alzahra hospital in Zahedan, Iran, enrolled through the convenience sampling in 2015. The data were collected by the valid and reliable job satisfaction standard questionnaire or Herzberg's Dual-Factor theory. To analyze the information, descriptive statistics, Chi-square & Pearson correlation test were applied by use of SPSS v. 21 software.

Findings: The results found that the most effective factors of job satisfaction were job safety with an average 4/78, work qualification with an average 4/32 and suitable salary with an average 3/91 respectively. Only 45.98% of the nurses experienced moderate job satisfaction, and only 25.54% of them had high job satisfaction. Moreover, job satisfaction was significantly related to the type of employment ($p=0.019$), work background ($p=0.029$) and turn of work ($p=0.034$).

Conclusion: The data of this study found that, notice and planning in preparing job safety, work qualification and proper salary may play a more effective role in improving employees' performance than any other factors.

Keywords: job satisfaction, operating room nurses, herzberg theory, hospital

1. Introduction

Operating room (OR) is separated from other hospital wards because of its special working situations and different building characteristics. According to the report of AORN released in 2009 and the report of the Centers for Disease Control and Prevention released in 2013 operating room nurses are in danger because of high working hours, unanticipated work conditions, facing stress factors and wastes from surgery (Chiou, Chiang, Huang, Wu, & Chien, 2013). Identifying and meeting staff's requirements are important to motivate them and to improve the work quality. This is an important matter in 21 century human resources management methods (Nazari, 2005). Job satisfaction has an important role in efficiency and productivity improvement. Especially in healthcare systems job satisfaction could be very important because the staff of facing human's life (Gorgich, Barfroshan, Ghoreishi, & Yaghoobi, 2015; Hooman, 2002). After that it became an important factor for organizational efficiency and productivity improvement. Today job satisfaction is considered in every planning stage of the organizations (Gholami Fesharaki, Aghamiri, & Mohamadian, 2011). Job satisfaction or job contentment is defined as positive emotions and attitudes toward the job which are gained through self-evaluation and job experiences (Asghari, Khaleghdoust, Asgari, & Kazemnejad, 2010; Suzuki et al., 2006). In fact it is a pleasant emotional state, which represents the evaluation, attitude and emotional response toward the job (Yoosefian Miandoab, Charkhat Gorgich, Pirnezhad, Rezvani Amin, Shahrakipoor, & Baragoei, 2015). Job satisfaction could result in improved enjoyment of working, better work results, enthusiasm and happiness in work and hardworking (Asghari et al., 2010; Ma, Samuels, & Alexander, 2003). This concept has an important

role in enhancing the organizational productivity, staff morale, organizational commitment, staff's physical and mental health and the ease of learning job skills (Gholami Fesharaki et al., 2011; Yaghoobi et al., 2015). Inattention to job satisfaction and factors effecting that could result in absence on the job, delays in work attendance workplace, leaving tasks undone, early retirement, and physical and psychological disorders that include hypertension and high fever (H. Lu, While, & Barriball, 2005). Researchers state that job satisfaction can affect nurses keeping or leaving this job. About 1/3 of British nurses and 1/5 of American nurses leave their job because they are not satisfied (K.-Y. Lu, Chang, & Wu, 2007). Many factors can create job satisfaction among organizations. There are several theories about job satisfaction and staff performance, but the most common and useful one is Herzberg's double factor theory. Herzberg believes that job satisfaction has internal and external factors which they have many dimensions such as supervision, salary and incomes, relations between individuals, and workplace situations. Each of these dimensions effect job satisfaction and if they are not mentioned they will result in staff's dissatisfaction. Decline in organizational productivity and staff's motivation is the result of this dissatisfaction (Adams & Bond, 2000). Organizational factors are more likely to forecast the job satisfaction in comparison with personal factors (Dunham-Taylor, 2000). Results of an American study had shown that job satisfaction comes with improvement in quality of patient care services and nurses' organizational productivity (Zarea, Negarandeh, Dehghan-Nayeri, & Rezaei-Adaryani, 2009). Lu's study found that factors such as educational level, working shift, and job descriptions can also effect staff's job satisfaction (K.-Y. Lu et al., 2007).

Operating room nurses are a member of healthcare system. They face human lives as nurses. Creating job satisfaction for them can improve human's health (Nasiripour et al., 2013; Thompson & Prottas, 2006). One study, which investigated the factors affecting job motivation in health workers, came to the conclusion that pride in work, effectiveness and job security were the most important motivational factors (Franco, Bennett, Kanfer, & Stubblebine, 2004). In Hyrkäs's study conducted using Herzberg's theory, it was found that there was a significant relationship between job satisfaction of nurses and relationships with staff, supervision, work environment and burnout (Hyrkäs, 2005). The operating room is one of the most critical hospital wards because of its unanticipated working shifts, unanticipated medical situations, using special medical instruments and surgery suites and necessity of high speed in working which nurses are working on (Chang & Hsu, 2000; Yu et al., 2008; Sabzehkar et al., 2015). According to the importance of job satisfaction in health care systems, and the importance of these systems in the community's health, cure and prevention of disease this study aimed to investigate the job satisfaction and external effecting factors on that among operating room nurses (ORNs) working in education hospitals of Zahedan in 2015.

2. Materials and Methods

This cross-sectional study. Included the operating room nurses (ORNs) working in Ali-ebn-Abitaleb, Khatam-al-Anbia and Alzahara Hospital of Zahedan. We had limited operating room nurses. So we used convenience sampling method was used to determine the maximum sample to be studied. For this purpose, researchers went to the operating room of three educational hospitals in various work shifts on several occasions and distributed questionnaires among employees who were willing to participate in the study. 137 surgical technologists were included to the study by the availability sampling method. Theses surgical technologists were included if they had at least an associated degree in surgical technology and at least 1 year of job experience.

Data were collected using Herzberg's standard job satisfaction questionnaire (Herzberg, Snyderman, & Mausner, 1966; Stello, 2011). This tool is known also as Herzberg Motivation-Hygiene theory or Dual-Factor theory. This tool has three components. The first component included demographic information such as age, gender, work experience, marital status, employment status and interest in the field of education. The second component include has 40 questions in two parts.

1. Health factors (external factors) with 23 questions in , p 8 dimensions such as job security, adequate wages, benefits, job availability olicy and administrative regulations, the physical conditions of the workplace, competent administrator, friendly relationship with supervisors, friendly relations with subordinates and peers. These factors do not directly enhance job satisfaction, but they avoid discontent.

2. Motivational factors (internal factors) with 17 questions in 9 dimensions such responsibility at work, independence and freedom in performance, the recognition, prevention and promotion opportunities at work, decency and in accordance job with their employees, a sense of achievement at work, appreciation of employees by managers and supervisors, high position of job in the organization and high position of job outside the organization. These factors increase employees' job satisfaction (Stride, Wall, & Catley, 2008).

Third component contains of 18 questions based on the topics listed in the second and third part of the

questionnaire, measured the current status of the health and motivational factors affecting the performance of operating room nurses.

All questions were scored on a 5 point Likert scale designed to have a range of very low to very high and the rates were classified from 1 to 5 (very high=5, high=4, almost=3, low=2, very low=1). The maximum score of the questionnaire was 200 and the minimum was 40. Finally the total job satisfaction scores were rated: scores from 148 to 200 indicate high level job satisfaction 94 to 147 were moderate and 40 to 93 were low satisfaction. High validity and reliability were highly supported in studies (Coomber & Barriball, 2007; Lee & Cummings, 2008; Nasiripour et al., 2013). Retest method was used to approve the reliability of the tool in this study. The questionnaire was given to 20 operating room staff and then re administered after 1 week to the same staff. After that the questionnaires were collected and analyses were conducted. The test-retest correlation coefficients were: health part (0.89), motivational factors (0.91), and staff satisfaction (0.81). After the test-retest was complete, the questionnaire was given to the operating room nurses with the permission of hospital directors and authorities. Data were analyzed through analytic statistics (Pearson's correlation coefficient and Chi-square test). Pearson correlation index was applied for correlation between job satisfaction and their domains. Chi-square test was used to compare job satisfaction and demographic characteristics of subjects. All statistical calculations were conducted by SPSS v.21. The significance level was considered at $p < 0.05$.

2.1 Ethical Considerations

To approve the ethical considerations in this study, the general guideline of ethics in human subjects in medical researches in the Islamic Republic of Iran has been used. This article was approved by the ethics committee of Zahedan University of Medical Sciences. Participation in the study was completely voluntary and those who have given an oral consent were included in the study only. It was not required to write the name and surname in the questionnaire. The aims of the study were explained for the respondents before giving the questionnaire to them.

3. Findings

137 of 145 questionnaires were collected from respondents. Eight questionnaires were omitted from the data because they were uncompleted. A total of 137 questionnaires were included in the analysis process (response rate). Of the study participants, there were 98 females (71.53%) and 39 males (28.47%) with an age average of 32.5 ± 2.6 and 78.4% of subjects were married. When asked about employment, 47.2% were employed as official staff, 25.7% were conventional, 16.5% were contractual and 10.5% were employed as projective employees. The participants had job experience that ranged from 2 to 28 years. Seventy-three of subjects (58.4%) were satisfied with their job. According to the results the most effective factors in surgical technologist's job satisfaction were job security, workplace situation and enough payments. Job's relation with personal life had the lower effect on job satisfaction among staff. The effective factors on job satisfaction are shown in Table 1.

Table 1. Mean distribution and standard deviation for job satisfaction dimensions among operating room nurses working in educational hospitals of Zahedan University of Medical Sciences 2015.

Job satisfaction dimensions	Mean and standard deviation
Job security	4.78±2.23
Workplace situations	4.32±1.25
Enough payments	3.91±0.75
Job position	3.67±1.45
Relations with colleagues	3.15±1.01
Supervision	2.83±1.87
Administrative and managerial policy	2.75±1.65
Relation with personal life	2.16±1.32

Note. All averages were calculated from a maximum of 5.

Data has shown that there is a positive correlation between job satisfaction and each of its dimensions among surgical technologists. The highest correlation was between job satisfaction and job safety, and the lowest was between job satisfaction and relation with personal life. (see Table 2).

Table 2. The correlation between job satisfaction and its dimensions among operating room nurses working in educational hospitals of Zahedan University of Medical Sciences 2015

Job satisfaction dimensions	Job position	Job security	Enough payments	Good job situations	Administrative policy	Supervision	Relations with colleagues	Relation with personal life
Total job satisfaction	r=0.733 p=0.023	r=0.827 p=0.011	r=0.780 p=0.019	r=0.802 p=0.009	r=0.638 p=0.006	r=0.728 p=0.032	r=0.624 p=0.03	r=0.512 p=0.027

Responsibility in work, interest in a job and feeling successful in the job were found to be the most important motivational factors affecting on operating room nurse's performance (see Table 3). Job position in the organization had the lowest effect. In addition, results found that 25.54% operating room nurses had a high job satisfaction. Most of them (45.98%) had a moderate job satisfaction (see Table 4).

Table 3. Mean distribution and standard deviation of motivational factors of job satisfaction in operating room nurses working in educational hospitals of Zahedan University of Medical Sciences in 2015

Job satisfaction motivational factors	Mean and standard deviation
Responsibility at work	4.83±1.23
Interested in the job	4.37±1.16
Feeling successful at work	4.22±1.02
Prevention and promotion opportunities at work	4.16±0.78
Decent and in accordance job with their employees	4.02±0.63
Appreciation of employees by managers and supervisors	3.91±1.51
Independence and freedom in performance	3.83±1.12
High position of job in the organization	3.63±0.16
Job satisfaction motivational factors	4.83±1.23

Note. All averages were calculated from a maximum of 5.

Table 4. Job satisfaction in operating room nurses working in educational hospitals of Zahedan city in 2015

Job satisfaction	Number	Percent
High	35	25.54
Moderate	63	45.98
Low	39	28.48
Total	137	100

Using a chi-square analysis, no significant relationship was found between job satisfaction and demographic information such as gender and marital status ($p>0.05$). However there was a significant relationship between job satisfaction and employment status, job experience, working shift and being interested in the job. The highest job satisfaction was among those who were employed as official staff and had a morning working shift. The results found that higher job experience was linked to higher job satisfaction (see Table 5).

Table 5. The relation between demographic information and job satisfaction among operating room nurses working in educational hospitals of Zahedan University of Medical Sciences 2015

Demographic information	Test result
Employment status	$X^2=8.756$ P=0.019
Job experience	$X^2=16.412$ P=0.029
Working shift	$X^2=21.264$ P=0.034
Being interest in job	$X^2=10.875$ P=0.007

4. Discussion

This study aimed to investigate the job satisfaction and its external effecting factors among operating room nurses working in educational hospitals of Zahedan city and found that job security, workplace situations and payments were the most effective factors of job satisfaction. Relation with personal life had the lowest effect on job satisfaction. Our study findings were supported by another study conducted by Mirmolaei and colleagues with the aim of investigation of job satisfaction among midwives, and found that the most effective factors were enough payments, job security and policies (Mirmolaei, Dargahi, Kazemnejad, & Mohajerrahbari, 2005). These results were consistent with our study in dimensions but they were different in importance of dimensions. This difference could be cause of different job situations and different policies of these two hospital wards. Enough payments and job security were mentioned as important factors effecting job satisfaction in both studies. This supports these factors as being main sources of satisfaction, which could help the directors and authorities to improve job satisfaction among staff. Enough payment would bring job security and job satisfaction together. Finally this will lead to organizational productivity improvement. Friendly relations with colleagues and supervisors was introduced as one of the aspects affecting job satisfaction in Rogelberg's study (Rogelberg, Allen, Shanock, Scott, & Shuffler, 2010). Job satisfaction can also create a sense of duty, improve the work performance and promotes staff health. As a consequence, their absenteeism rate will be greatly reduced (Jorfi, Yacco, & Shah, 2012). The effect of job satisfaction on promotion of a sense of duty and commitment in staff was found (Jachnis, 2008).

On the other side dissatisfaction and low job satisfaction may lead to quitting the job and absenteeism and also reduces the job performance of staff and finally it has negative effects on organizational performance (Wang, Yang, & Wang, 2012). Reduction in the performance of operating room nurses may reduce the health system services quality, so then it can lead to patient dissatisfaction. Dissatisfaction is used as a benchmark to measure the quality of care services (Gorgich et al., 2015). Nasir pour and colleagues study also found that job security and enough payment are the most effective factors on job satisfaction (Nasiripour et al., 2013). Studies have shown different results in the field of job satisfaction. As it is seen in Mahmodi and colleagues study supervision was known as the most effective factor on job satisfaction and enough payments had the lowest effect on it (Mahmoudi et al., 2007). These results were in contrast with present study. The kind of job and job situations could be effective on this difference. In another study conducted on nurses to investigate the factors effecting job satisfaction, most effective factors were job situations, ward climate, and hospital climate (Coomber & Barriball, 2007). These results were not consistent with present study. This contrast can be cause of different tools used in two studies. The results of our study proved that the highest correlation was between job satisfaction and job security. Job security include insurance and retirement services, respect for justice and fairness in managers and job stability. Nasir pour's study stated that the highest correlation was between job satisfaction and management policies (Mirmolaei et al., 2005). Hong and colleagues study had shown that factors such as enough payments, appropriate amenities, delegation and job security could create job satisfaction and increase organizational productivity (Hong, Hamid, & Salleh, 2013). According to studies conducted on this field we can name three factors as most important factors effecting job experience: job's definition, job security and payments (Jabbari, Rajaeepour, & Jafari, 2004). Which are mostly consistent with our study in Zahedan, southeastern Iran. This consistency is cause of basic role of these factors to create job satisfaction. There was a significant relationship between employment status, job experience, work shift and being interested in the job and job satisfaction but

not between age and marital status and job satisfaction in present study. Another study also proved this that there is no relation between age and marital status and job satisfaction. The same study stated that official employed staff had a higher rate of job satisfaction (Gorgich et al., 2015). This was consistent with our study. Asghari and colleagues study showed that job satisfaction increases with staff aging. And this increasing was more in males in comparison with females (Asghari et al., 2010). Luddy and colleagues has reported a significant statistical relationship between age, gender, marital status and education and job satisfaction which were in contrast with the results of present study (Luddy, 2005). Also the results of Fogarty study named as Job satisfaction and retention of health-care providers showed that there was a significant positive correlation between participant's demographic variables, work history, sufficient salary and their workplace properties and Job satisfaction and they considered these as factors affecting the job retention (Fogarty et al., 2014). As mentioned above different factors are effecting job satisfaction in different studies. This difference can be cause of different cultures, societies, and communities. There was a significant relationship between job experience and job satisfaction. This result was consistent with Kousha and colleagues (Sh, Kousha, & Janati, 2012) and Abaschian's study (Abaschian, Avazeh, & Rabi SiahkaliS, 2011). But it was in contrast with Sypniewska's study (Sypniewska, 2014). Corporation between staff can transfer the experiences from expert staff to new employed or younger staff. This could be the reason of relationship between job satisfaction and job experience. The results of present study have shown a significant relationship between working shift and job satisfaction. According to this relationship those who worked on morning fixed shift were much more satisfied with their job than others. This is while there was not any significant relationship between working shift and job satisfaction in Rashedi and colleagues study (Asgari, Rafat, & Rashedi, 2012). Uğurlu's study also was not consistent with present study (Uğurlu et al., 2015). This difference can be cause of rotational shifts in operating room staff which is conducted to prevent occupational burnout and using experience of expert staff.

According to this that self-report method was used to collect the data in this study many problems were faced by the researchers. Problems such as conservatism of some staff for providing information, paying less attention to the research and its impact on staff performance. For solving these problems respondents were asked to answer the questions carefully and also positive effects of the results of study for making better job situations were explained for them.

5. Conclusion

According to the results of present study and other studies related to this field job security, workplace situation and enough payments are the most valuable factors in creating job satisfaction. On other hand job satisfaction had the most correlation with job security. Therefore, creating job satisfaction among healthcare staff could increase organizational productivity and also proved best healthcare services to the society. So it is suggested to the hospital authorities to increase the job security through insurance and retirement service improvement. Also they should try for equipment improvement, work load balance, amenities etc. They also should pay attention to good payments for healthcare staff especially for surgical technologists who face every day unexpected situations in operating theater. Finally it is suggested to evaluate the effective factors on job satisfaction periodically and act according to this evaluation result to improve job satisfaction.

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Competing Interests Statement

The authors declare that there is no conflict of interests regarding the publication of this paper.

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