

## **The Study of the Relationship Between Knowledge Management and Job Satisfaction in Nurses Working in Hazrat-e Fatemeh Hospital in Tehran**

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**Abstract:** Knowledge is known as an enabler element that can develop an organization so that it will offer tremendous potential in terms of efficiency and proficiency. The aim of the present research is to study the association between knowledge management and job satisfaction in nurses working in Hazrat-e Fatemeh Hospital in Tehran. According to the limited statistical population, sample size was selected through census (the total of statistical population). For this purpose, 106 nurses working in Hazrat-e Fatemeh Hospital were chosen using census method. To describe and analyze the data, descriptive and inferential statistics were used. Collected data were analyzed through statistical methods applying SPSS Software. Results indicated that there is a significant relationship between goals, identification, achievement, development, dissemination, application, preservation and assessment and job satisfaction in nurses working in Hazrat-e Fatemeh Hospital ( $p < 0.001$ ). Additionally, regression results showed that four factors including knowledge development, dissemination, application and assessment explain 64.3% of changes in job satisfaction. According to the strong role of knowledge management in explaining job satisfaction, it is recommended that managers and policy makers put more emphasis on this important element in increasing job satisfaction and other important components of the organization.

**Key words:** Nurses, knowledge management, job satisfaction, additionally, management

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### **INTRODUCTION**

At present organization journey towards excellence has been accelerated and organizations are demanding richness, self-discovery and self-actualization. Therefore, future organizations will be knowledge-based ones generally including experts who set the way and rules of their work through received feedback from their colleagues, customers and bosses, so that the gravity center of employing workforce are changed from simple manual labor to knowledge workers which will resist against behavioral approach that business environment was taken from military environment over a hundred years ago and will cause a development at the organizational activity domains.

As Drucker had predicted, various organizations and companies have started joining knowledge process in recent years and new concepts such as knowledge practice, knowledge management and knowledge organizations reveal the intensification of the process. Knowledge organization achieves the abilities which are capable of creating a great power from a small force. In

other words, knowledge is known as an enabler element that is able to creating such a dramatic change in the organization that will be capable of offering tremendous potential in terms of efficiency and proficiency.

To survive and compete in a knowledge society organizations have to learn how to manage their own intellectual capital. Knowledge is the only resource which increases through applying. Professional managers of knowledge are faced with a tremendous demand due to explosive growth of knowledge, its short life and the increasing importance and knowledge-based nature of all management processes (Hossini, 2008). Now a days, knowledge management is introduced as a strategic issue in organizations. Knowledge management is a phenomenon that has brought many radical changes in the role of individuals in the business environment. Knowledge management is a kind of management making the success of organizations possible. Moreover, knowledge management includes policies, strategies and techniques whose aims are competitiveness of organization to optimize the required conditions for improving proficiency, innovation and collaboration

environment between employees of the organization. Additionally, knowledge production facilitates value creation, innovation and improvement in the organization.

Theorists believe that allocating a certain capital to knowledge management is much more profitable for the organization than allocating the same amount to material sources. Charles Hindi, the leading theorist in management, believes that we are now at a stage that the value of intellectual capital is often several times greater than the value of material assets (Safari *et al.*, 2016). Today organizations are trying hard to be known as the pioneers in knowledge management skills and then they have their efforts rewarded in this way. This fundamental issue is possible through applying knowledge for innovative intentions. Wiig (1993) believes that knowledge management can make the organization capable of improving their normal performance to an intelligent performance along with creativity. Knowledge management aims at finding new perspectives on learning, creating knowledge and developing the domestic and foreign competitions in the modern world.

The resulted advantages of applying knowledge management have caused most organizations to make some efforts to implement the process, but the initial efforts in most organizations are faced with the main challenge that despite investing on knowledge management, the influence of its applications extends slowly. Studies conducted by Motavalian *et al.* (2012) show that Iranian companies and organizations have not achieved a great success in knowledge management action plans and so far, only <30% of companies and organizations have implemented knowledge management plans. The greatest challenges are in the area of motivating organization experts' participation in sharing knowledge (62%), updating knowledge bases (59%) and creating a connection between knowledge management and daily activities of the organization (59%).

Today, job satisfaction has become the focus of organizational behavior researchers' attention and is considered as one of the main concepts in organizational research (Bakhshayesh, 2013). Job satisfaction is regarded as the most important variable in organizational behavior domain and a factor in increasing the proficiency and satisfaction of individual employees. Keeping employees satisfied has been among the major concerns of managers in today's organizations (Rezaei and Khalilzadeh, 2009) and a particular attention is given to job satisfaction at all levels of management and human resources of organizations (Zaki, 2008). In a simple definition, job satisfaction can be defined as an individual's positive or desirable emotional state towards his job or job

experiences (Demirtas, 2010; Ziapour *et al.*, 2015a). Job satisfaction associates with issues such as service quality and individual's performance (Demirtas, 2010); it is one of the issues which is highly regarded by researchers and since satisfied employees are working better and provide great production and service with higher quality, it is given attention (Rezaei and Khalilzadeh, 2009; Ziapour *et al.*, 2016). People who are satisfied with their job have less absenteeism, don't leave the organization to find better job, don't treat the clients inappropriately, don't cause any trouble for themselves and organization, perform their functions with more confidence and interest and enjoy good physical health.

Considering the fact that the quality of human resources increases through modern knowledge, the requirement for increasing the knowledge of human resources is their job satisfaction. Particularly in a statistical population who are responsible for patient's lives, the lack of such conditions might result in problems in workplace and ultimately organization. Therefore, knowledge management is likely to affect nurses performing their functions and ultimately their more satisfaction, but making a definitive statement on this issue necessitates conducting a field research. Accordingly, this research aims at studying the relationship between knowledge management (including components of knowledge goals, knowledge identification, achievement, development, dissemination, application, preservation and assessment) and job satisfaction in nurses working in Hazrat-e Fatemeh Hospital.

**History of domestic and foreign research:** Etemad Ahari conducted a research in order to study the association between knowledge management and organizational trust as well as job satisfaction in employees a case study of Maskan Bank employees in the supervisory office of southeast branches in Tehran. The research findings revealed that knowledge management and all its dimensions knowledge creation, knowledge sharing, knowledge application and knowledge preservation associate significantly with organizational trust and job satisfaction of employees at Maskan Bank. The results also showed that there is a relationship between organizational trust and its dimensions (institutional, vertical and lateral trust) and job satisfaction among Maskan Bank employees.

Dorani and Adiban carried out a research to determine the association between knowledge management processes and employees' job performance at higher education system (case study of Tehran University). According to the results obtained, the status

of knowledge management among the staff was lower than the assumed mean (3) and job performance was higher than mean score; the level of knowledge management and job performance among demographic variables was as follows: (sex, age, education degree and work experience), there was a significant difference between age variable and knowledge management and also between age and sex variables and job performance.

Ghanimat conducted a research to study the association between factors affecting knowledge management and job satisfaction. The present study aims at examining the effective factors on applying knowledge management and determining the relationship between applying knowledge management and job satisfaction. Results indicated that among factors affecting knowledge management there is a significant relationship between leadership and top management commitment, employee participation, employee training, employee empowerment, information system infrastructure, performance evaluation and benchmarking and job satisfaction in Islamic Azad University of Pars Abad and there is no significant relationship among organizational culture, valuable teamwork and knowledge structure.

In a research conducted by Nasiripour *et al.* (2013), they examined the factors affecting employee job satisfaction based on Herzberg's theory in training hospitals in the city of Qazvin. Job security factors with mean score of 4.39 and appropriate salary range with an average score of 4.38 out of 5 among the health factors and sense of responsibility factors with mean score of 4.38, job interestedness with the average score of 4.38 out of 5 among motivation factors were prioritized, respectively. About 70.8% of employees considered two factors of salary and job security as the most significant deterrent factors in improving the employee performance. Planning and consideration to provide appropriate salary and job security as the health factors and having the sense of responsibility and success at work as the motivation factors can affect employee performance more than any other factor.

In a research conducted by Jajromi *et al.* (2014) to study the association between organizational culture and job satisfaction of employees in Roads and Transportation Department of Semnan Province, it was revealed that there is a positive and significant relationship among all components of organizational culture and job satisfaction. Comparing demographic groups indicated that there is no significant difference between organizational culture and job satisfaction.

Hossininasab and Jouyani (2008) conducted a research to study the relationship between organizational culture and job satisfaction of the employees in Islamic

Azad University of Ardabil. Steed organizational culture, job satisfaction (JDI) and researcher-made questionnaires containing demographic data were used for collecting data and 272 subjects as statistical sample out of 353 university staff answered the questionnaires. Research findings indicated that there is a significant relationship between organizational culture and job satisfaction ( $r = 0/607$ ). The dominant organizational culture at the university is a certain rational one and employee job satisfaction was evaluated to be at an average level. Findings revealed that organizational culture factors have strong and deniable impact on employee job satisfaction.

In a research conducted by Tsai (2011) entitled 'the relationship among organizational culture, leadership behavior and job satisfaction', he concluded that organizational culture is considerably associated with leadership behavior and job satisfaction; additionally, leadership behavior has a positive and significant impact on job satisfaction.

In a research carried out by Park *et al.* (2016), they predicted the job satisfaction level among people with disabilities, an analysis from South Korea national organization about employment of the disabled. The mentioned study has been done to examine the effects of personal, professional and workplace related factors that are associated with job satisfaction of people with disabilities in South Korea. Data about employees' job based on salary was obtained from a survey done throughout the country which has been concluded from a total of 417 participants. Six hypotheses and the mediated effects of person and work-related environmental factors were derived from structural equation modeling. Results demonstrated that life satisfaction and job-related environment are directly affected by job satisfaction; the association between both personal experience and job satisfaction and life satisfaction was mediated for both groups of mild/moderate and severe/profound disabilities and the mediating role of workplace between professional and technical preparation and job satisfaction was observed only for people with mild/moderate disabilities.

## **MATERIALS AND METHODS**

The present research is a cross-sectional study performed through census among nurses working in Hazrat-e Fatemeh Hospital in Tehran. Statistical population included 106 nurses working in units 1-3, ICU, surgery room, nursing station and emergency operating room. In this research, three questionnaires were used to collect data. The first part contained three demographic

questions including age, sex and education level. The second part of the questions included knowledge management questionnaire based on Probest, Rob and Mahardat Model containing 24 questions (comprising 8 components: knowledge goals, identification, achievement, development dissemination, application, preservation and assessment, each with 3 questions). Questionnaire reliability was measured 0.951 through Cronbach's alpha test that was desirable and acceptable. The second part of questions included job satisfaction questionnaire with 62 questions inspired by Smith, Kendall and Hulin (comprising 5 components: job characteristic component with 22 questions, colleague with 11 questions, chief executive with 13 questions, salary and benefits with 7 questions and job promotion with 9 questions). The reliability of this questionnaire was calculated 0.945 via Cronbach's alpha that was considered as a desirable and acceptable one. Questionnaire responses were measured on 5-item Likert scale (strongly disagree, disagree, undecided, agree and strongly agree). SPSS Software was used to describe and analyze data (descriptive and inferential statistics). Kruskal-Wallis test, Mann-Whitney U test, regression analysis and both Pearson and Spearman correlation tests were used for responding to the research hypotheses.

According to Kolmogorov-Smirnov test for the normality of data, the significance level of employee participation variables, giving consideration to education, bonuses and promotions, sense of belonging and ownership, comprehensive quality management, knowledge dissemination, knowledge management and job satisfaction was  $>0.05$  hence, the  $H_0$  hypothesis is rejected and it can be concluded that collected data is normal for the research variables and consequently, parametric tests (Pearson correlation coefficient test) have to be used. Additionally, since the significance level for variables of customer orientation, continuous improvement, communications, evaluation and feedback, knowledge goals, identification, achievement, development, application, preservation and assessment was  $<0.05$ ,  $H_0$  hypothesis is confirmed and we concluded

that collected data for research variables is not normal therefore, non-parametric tests (Spearman correlation coefficient test) must be used.

**RESULTS AND DISCUSSION**

Of the 106 participants, female nurses with 81.1% of frequency had more participation in filling the questionnaire while male nurses participated in filling out the questionnaire with a frequency of 18.9%. The descriptive results related to the age group of participants indicated that nurses with 23-30 years old had the highest rate of frequency with a frequency of 63.2%, nurses with 30.2% and nurses over 40 years old with a frequency of 6.6% were in second and third place, respectively. All survey respondents had bachelor's degrees. Descriptive results revealed that among subscales of knowledge management, knowledge application showed the highest mean score of 3.16 and standard deviation of 0.90. Knowledge assessment had the lowest mean score of 2.98 and standard deviation of 0.93 (Table 1).

In this research, there is a significant difference between male and female nurses' viewpoints towards knowledge management; in other words, female nurses believe in knowledge management more than male while in job satisfaction variable no significant difference was observed ( $p>0.05$ ) (Table 2). Correlation results indicated that knowledge management index had a strong and significant correlation with job satisfaction ( $R = 730$ ,  $R^2 = 0.533$ ). A positive and significant correlation was observed in other subindices of knowledge management with job satisfaction (Table 3).

The results obtained from regression analysis show that among the components of knowledge management, those of knowledge development, dissemination, application and assessment have the inclusion criteria to enter the regression equation as a predictor variable to explain the changes in job satisfaction. As, it can be seen in the table, knowledge development is entered into the

Table 1: Descriptive statistics of research variables

Variable	Lowest data	Highest data	Mean	SD	Variance	Skewness	Elongation
Knowledge goals	1.00	4.67	3.06	0.91	0.830	-0.228	-0.596
Knowledge identification	1.00	5.00	3.00	1.03	1.050	-0.363	-0.184
Knowledge achievement	1.00	5.00	3.14	0.84	0.696	-0.474	0.850
Knowledge development	1.00	4.67	3.04	0.97	0.941	-0.492	-0.182
Knowledge dissemination	1.00	5.00	3.10	0.83	0.690	-0.217	-0.382
Knowledge application	1.00	4.67	3.16	0.90	0.813	-0.850	-0.133
Knowledge preservation	1.00	4.33	3.01	0.85	0.719	-0.397	-0.453
Knowledge assessment	1.00	5.00	2.98	0.93	0.862	-0.549	-0.070
Knowledge management	1.38	4.00	3.07	0.54	0.286	-0.764	0.544
Job satisfaction	2.03	4.08	2.97	0.37	0.133	0.147	0.048

Table 2: Mann-Whitney U-test to compare the male and female participants' viewpoints towards research variables

Indices	Mann-Whitney U-statistic	Z statistic	Significance level
Job satisfaction	701.5	-1.280	0.200
Knowledge management	525.5	-2.704	0.007

Table 3: Correlation between knowledge management and job satisfaction dimensions

Variables	Type of correlation	Correlation value	R <sup>2</sup>	Correlation direction	Significance	Results
Knowledge management	Pearson	0.730	0.533	Positive	0/001	Confirmed
Knowledge goals	Spearman	0.475	0.226	Positive	0/001	Confirmed
Knowledge identification	Spearman	0.517	0.267	Positive	0/001	Confirmed
Knowledge achievement	Spearman	0.407	0.166	Positive	0/001	Confirmed
Knowledge development	Spearman	0.517	0.267	Positive	0/001	Confirmed
Knowledge dissemination	Pearson	0.380	0.144	Positive	0/001	Confirmed
Knowledge application	Spearman	0.505	0.255	Positive	0/001	Confirmed
Knowledge preservation	Spearman	0.452	0.204	Positive	0/001	Confirmed
Knowledge assessment	Spearman	0.524	0.275	Positive	0/001	Confirmed

Table 4: Regression analysis to estimate the job satisfaction prediction through knowledge management components

Variables	Components	R	R <sup>2</sup>	F-value	Significance level
First step	Knowledge development	0.673	0.453	86.175	0.001
Second step	Knowledge dissemination	0.747	0.559	65.152	0.001
Third step	Knowledge application	0.783	0.613	53.93	0.001
Fourth step	Knowledge assessment	0.802	0.643	45.53	0.001

equation in the first step and the value of multiple correlation coefficient is 0.673 and that of R<sup>2</sup> is 0.453. Thus, knowledge management component specifies 45.3% of changes in job satisfaction which is regarded significant considering the value of F = 86.175 and significant level of p = 0.001. In the second step, knowledge dissemination has also been entered the equation and the value of multiple correlation coefficient in the second step equals 0.747 and R<sup>2</sup> = 0.559. It means that knowledge dissemination component heightens 10.6% of explanation rate of job satisfaction and in the second step in total, 55.9% of changes in job satisfaction can be explained through the changes in both knowledge development and knowledge dissemination variables which shows a significant value according to F = 65.152 and the significance level of p = 0.001.

In the third step, knowledge application component has also been entered into the equation and the score of multiple correlation coefficient in the third step was 0.783 and R<sup>2</sup> = 0.613 that is knowledge dissemination component increases the explanation rate of job satisfaction by 5.4% and in the second step in total, 64.3% of the changes in job satisfaction can be explained through the changes of three variables of knowledge development, knowledge dissemination and knowledge application; this rate is significant due to the value of F = 53.93 and the obtained significance level of p = 0.001. In the fourth step, knowledge assessment component has been brought into the equation, as well and the score of multiple correlation coefficient in this step is 0.802 and R<sup>2</sup> equals 0.643. Therefore, knowledge assessment component increases the explanation rate of job satisfaction by 3% and in the second step in total, 64.3%

of the changes in job satisfaction can be explained via four variables of knowledge development, knowledge dissemination, knowledge application and knowledge assessment that is significant considering F = 45.53 and the obtained significance level of p = 0.001 (Table4).

### CONCLUSION

The present research was conducted to study the relationship between knowledge management and job satisfaction among nurses. The general results revealed a positive and significant correlation between knowledge management and job satisfaction so that the more knowledge management increases the more job satisfaction in employees rises as well.

Examining the subindices of knowledge management showed a correlation with job satisfaction. The results indicated that there is a significant relationship among knowledge goals, knowledge identification, knowledge achievement, knowledge development, knowledge dissemination, knowledge application, knowledge preservation, knowledge assessment and job satisfaction in hospital nurses. Findings obtained from conducted studies by other researchers including Ziapour *et al.* (2015b) confirm the results of the present study.

### LIMITATIONS

Some of the limitations of this research are Research population of this study has been limited to all nurses working in Hazrat-e Fatemeh Hospital in Tehran. Conducting research in academic year of 2015-2016 shows

its time limitation. A questionnaire has been used merely to collect data.) The present research was performed simply in a state hospital.

### RECOMMENDATIONS

It is recommended that performance measurement based on knowledge might be considered as the basis for reward systems as well as promoting and ensuring employee job satisfaction. Creating knowledge along with strengthening and improving technical knowledge will be helpful in the domains of innovation and activities associated with staff job satisfaction. It is suggested for succeeding in knowledge management implementation, one of the most important steps is to change the culture and attitude of the whole personnel and every single employee towards sharing the knowledge. Hospital authorities and managers must take basic steps with specific planning to achieve this important thing and if it succeeds it will lead to employees' much more satisfaction. It is recommended setting programs in the hospital for introducing people who share their knowledge across the organization and make them known as people having specific skills. It will make the hospital personnel more encouraged to participate in implementation of knowledge management across the organization. In fact, the thinking of 'knowledge exchange is power' should be substituted for 'knowledge is power' among the organization staff. For the future studies, it is recommended the present research subject be dealt with in other hospitals and organizations and it be examined from the perspective of managers and personnel simultaneously and separately. It is suggested that knowledge management should be studied with other variables including job performance, efficiency improvement and promotion and etc.

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