Job satisfaction of nurses in Ministry of Health Hospitals in Riyadh, Saudi Arabia

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ABSTRACT

Objective: To examine the magnitude and determinants of job satisfaction in nurses working in Ministry of Health hospitals Riyadh, Kingdom of Saudi Arabia.

Methods: A modified version of the Minnesota Job Satisfaction Questionnaire is used to survey 500 nurses in 9 Ministry of Health hospitals in Riyadh, Kingdom of Saudi Arabia. Three hundred and sixty six nurses from different nationalities responded to the questionnaire (response rate 73%). Data analysis consisted of descriptive statistics, t-tests, one way-analysis of variance, correlation analysis, and regression analysis

Results: Overall job satisfaction was found to be moderate. The most important determinants of job satisfaction are: Recognition, technical aspects of supervision, work conditions, utilization of skills, pay, and job advancement. No differences were found in overall job satisfaction according to gender, age, income, nationality, or marital status. Differences were found according to educational level. Also, job satisfaction is positively correlated with years of experience.

Conclusion: The study has important implications for the way that Ministry of Health hospitals are managed and for its policies regarding several aspects of human resources including efficient and effective use of nursing manpower.

Keywords: Job satisfaction, health organization, health manpower and facet satisfaction.

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In recent years the Ministry of Health (MOH) in the Kingdom of Saudi Arabia (KSA) has been greatly concerned with the severe shortage of qualified nurses. This problem is enhanced by a very small participation of Saudi nationals in the nursing workforce. Recent statistics show that Saudis comprise 19.8% of the total nursing workforce in the (MOH).[1] Evidence indicates that the nursing profession in general is unable to attract adequate a number of Saudi men and women due to salaries, shift schedule, and social perception of nurses.[2] Issues regarding recruitment and retention in the profession have been placed high on the Ministry's agenda. In a changing healthcare environment, with increasing emphasis on cost containment and financial responsibility, recruitment and retaining of qualified nursing staff is a real challenge to Saudi hospitals. In order to minimize costs and improve performance, healthcare organizations should focus on creating an environment that improves job satisfaction and retains productive and experienced employees.

Job satisfaction is viewed as an outcome of the interaction between the worker his work environment and his job.[3] Locke[3] suggests that values work in the manner of goals: "job satisfaction and dissatisfaction are a function of the perceived relationship between what one wants from one's job and what one perceives it is offering or entailing". Organizational research shows that employees who are experiencing job satisfaction are more likely to be productive[4,5] and to stay in the job.[6,7]

There are numerous research studies that investigated job satisfaction of nurses from a wide variety of perspectives.[4-15] The results of existing work in this area are most useful in understanding the dynamic nature of job satisfaction. Several factors were found to influence job satisfaction including: Job stress, job motivation, job expectations, meaningful work, knowledge of work results, commitment to career, health difficulties, task identity, supervision, dealing with others at work, opportunity for advancement, pay and job security.[4] Nurses' job satisfaction was also found to derive from the following factors: Patient care, environment, balanced workload, relations with coworkers, personal factors, salary and benefits, professionalism, cultural background, and career stage of the nurse.[5] In Australia job satisfaction was found to be influenced by work content (variety, autonomy, task identity, and feedback) and work environment (Ward facilities, collaboration with medical staff, cohesion amongst nurses, staffing, pooling and respect by others).[6] A positive correlation exists between autonomy, motivation and job satisfaction.[7] A study of acute ward nurses in the National Health Service of England, that has valuable implications for the international nursing community, suggests that as a result of the changing health care environment new sources of job satisfaction have emerged.[9] Potential sources of dissatisfaction include: Pressure associated with new roles, role conflict, lack of job security, 'tight' resources, using new technology, a perceived lowering of standards of patient care, coping with increased amounts of paperwork, and the experience of working in a rapidly changing environment.[8] A relationship was demonstrated between job satisfaction and interpersonal relationships including group cohesion and physician-nurse collaboration.[9,10] Leadership behavior was also proven to be an influential variable explaining job satisfaction.[9,11] Job satisfaction of nurses in KSA has been investigated from different perspectives.[12,13] A study of the influence of job characteristics on job satisfaction of pediatric nurses in Jeddah, KSA revealed that levels of job satisfaction are relatively low regarding satisfaction subscales.[12] A significant relationship was found between job satisfaction and 3 job characteristics: Variety, task identity, and feedback.[12] Another study of nurses in Riyadh, KSA found nurses to be moderately satisfied. Levels of job satisfaction among nurses were found significantly different according to marital status, nationality, and age.[13] Several studies found patterns of relationships between job satisfaction and several personal variables, such as age,[13] marital status[16] nationality[16] and years of experience.[13-15] The correlation between the level of education and job satisfaction was found to be weak in one study[13] while another study found

no significant differences in job satisfaction according to level of education.[10]

Despite the fact that job satisfaction of nurses has been the subject of numerous studies in many different countries including KSA, the amount and quality of published research on this subject in KSA does leave room for further study and examination.

The purpose of this study is to examine magnitude and determinants of job satisfaction of nurses working in Ministry of Health hospitals in Riyadh, KSA and to identify differences in the overall level of job satisfaction according to selected personal characteristics: Gender, nationality, age for example.

Methods. The population of this study consists of nurses working in MOH hospitals in KSA, and the accessible population. The total number of nurses in Riyadh is 5236 of which 14% are Saudi.[1] Due to the difficulty of using a complete probability sampling design, a "stratified convenience" sampling design that assumes the population is divided into strata (Saudi versus non Saudi) is used in this study. Each participant was given a copy of the questionnaire along with a self-addressed return envelope. The response rate was 73% (366 participants), which is considered appropriate for this type of studies.

Based on a review of the literature, an instrument to measure job satisfaction was developed and administered to 500 nurses in 9 MOH hospitals in Riyadh, KSA. The items used to measure job satisfaction were derived from The Minnesota Satisfaction Questionnaire and modified for purposes of this study.[16] The job satisfaction measure contained 25 items that were classified into 10 categories representing job satisfaction subscales including: Utilization of skills, job advancement, pay, colleagues, recognition, autonomy, job security, supervision/human, supervision/technical, and work conditions and a global measure of job satisfaction Responses were reported using a 5-point Likert-type scale that ranged from very dissatisfied to very satisfied. The questionnaire items were revised several times using feedback from a panel of judges, and then from a cross section of nurses. Finally, a pilot test was conducted among a sample of 25 nurses, and then the questionnaire was modified for the last time. Internal consistency has been demonstrated (Cronbach's Coefficient alpha) to be 0.86. Demographic information was collected using 8 items including: Gender, nationality, age, education, position, years of experience, position, and income level.

Data analysis consisted of descriptive statistics, including means with standard deviations, frequency distribution, as well as t-tests, one way-analysis of variance, correlation analysis, and regression analysis.

Results. Ninety percent of nurses were female, 16% were Saudi, while 71.3% were from South East

Table 1 - T-test for comparison of overall job satisfaction levels according to gender and marital status and job tasks.

Variables	Mean	Standard Deviation	T Value	P value
Gender				
Male	3.3	0.64	1.08	0.277
Female	3.2	0.58		
Marital Status				
Married	3.2	0.57	1.102	0.237
Unmarried	3.1	0.65		
Job Tasks				
Clinical	3.2	0.58	0.529	0.349
Other	3.2	0.62		

Asian countries, 8.6% from Arab countries, and only 0.5% from Western countries. In terms of education, more than half of the toal number of nurses were holding a middle college-nursing diploma (2 years after high school), 35% were holding bachelors of nursing, and 11% were graduates of the health Institute (high school equivalent). More than 70% of nurses performed clinical duties, while 16.4% were in supervisory positions, 2% performed educational activities, and 1.4% performed paperwork. Approximately half received monthly salaries between Saudi Riyals (SR) 2000 and SR 5000, 37.4% received less than SR 2000, 8.2% received between SR 5000 and SR 8000, and 5% of the sample received more than SR 8000 per month. Age distribution shows that 40% of nurses were between the ages of 30 to 40, while 31.4% were 25 to 30 years of age, and 17.2% were 40 to 50 years of age.

Some sample characteristics such as gender and nationality distributions are similar to those of the nursing population, which enhance the representativeness of the sample and the ability to generalize the results.

In order to determine levels of overall job satisfaction among nurses, the means and standard deviations were calculated. Overall job satisfaction was measured in 2 different ways: first the average score of responses to all 25 items of the job satisfaction scale, then through the averages score of the global measure. Results show that overall satisfaction scores were similar when measured in both ways, and its value was 3.3 on a scale of 5, indicating that nurses have a moderate level of job satisfaction, or that they are "somewhat satisfied". One way analysis or variance and T-test were performed to determine differences in overall job satisfaction according to sample demographic characteristics. Results of T-test and analysis of variance procedures are presented in **Tables 1 & 2**. No significant differences in overall levels of job satisfaction were found according to gender, nationality, age, marital status, job tasks, and monthly income. Significant differences were only found according to education level at α=0.01. Results indicate that overall job satisfaction is significantly lower among bachelors' degree holders than middle college graduates and graduates of the Health Institutes, and that it is also significantly lower among middle college graduates than graduates of the Health Institutes.

Patterns of association between overall job satisfaction scores and experience level (years of experience) were measured using Pearson product

Table 2 - Analysis of variance test for comparison of overall job satisfaction levels according to nationality, education levels, age and monthly salary.

Variables	Sum of squares	df	Mean square	F Value	P value
Nationality					
Between groups	153.433	2	76.716	0.355	0.701
Within groups	74745.358	346	216.027		
Total	**74898.791**	**348**	-		
Educational Level					
Between groups	3204.242	2	1602.121	7.733	0.001
Within groups	73544.431	355	207.167		
Total	**76748.673**	**357**	-		
Age					
Between groups	625.415	3	208.472	0.971	0.406
Within groups	75788.658	353	214.699		
Total	**76414**	**356**	-		
Monthly Salary					
Between groups	720.227	2	360.114	1.674	0.189
Within groups	76146.865	354	215.104		
Total	**76867.092**	**356**	-		
df - degrees of freedom					

Table 3 - Specific job satisfaction sub-scales/facets.

Job satisfaction subscales /facets	Mean	Standard deviation
Utilization of skills	3.6	0.8
Job advancement	2.8	1
Pay	2.6	1
Colleagues	3.9	0.6
Recognition	3.3	0.9
Autonomy	3.1	0.8
Job Security	3.2	0.9
Supervision/human	3.0	1
Supervision/technical	3.5	0.9
Work Conditions	3.3	0.9

Table 4 - Multiple correlation procedure to measure the combined influence of job satisfaction facets on overall satisfaction.

Model		R value
a	Y=a+X5	0.782
b	Y=a+X5+X9	0.884
c	Y=a+X5+X9+X10	0.932
d	Y=a+X5+X9+X10+X1	0.965
e	Y=a+X5+X9+X10+X1+X3	0.978
f	Y=a+X5+X9+X10+X1+X3+X2	0.988
g	Y=a+X5+X9+X10+X1+X3+X2+X8	0.992
h	Y=a+X5+X9+X10+X1+X3+X2+X8+X6	0.995
i	Y=a+X5+X9+X10+X1+X3+X2+X8+X6+X4	0.996
j	Y=a+X5+X9+X10+X1+X3+X2+X8+X6+X4+X7	0.996

R - multiple coefficient correlation that measures the correlation between the observed and predicted values of the dependant variable

correlation r. Significant but low positive correlation was found between the 2 variables r=0.209 (α =0.01) indicating that overall job satisfaction improves with time on the job.

Specific job satisfaction levels were analyzed using means and standard deviations that are presented on **Table 3**. The highest satisfaction was found with their colleagues, while the lowest satisfaction was found with pay, and job advancement. Moderate satisfaction was found with the remaining specific job satisfaction subscales, indicating the need for improvement on most areas of job satisfaction.

In order to determine which of these 10 job satisfaction facets have the greatest influence on overall satisfaction of nurses; multiple correlation procedure was applied as shown in **Table 4**. Results show that a combination of several facets has a strong influence on overall job satisfaction. The largest variance in overall job satisfaction is explained by the 6th model (f), which includes 6 facets: Recognition, technical aspects of supervision, work conditions, utilization of skills, job advancement, and pay. These 6 facets combined explain 97% of the variance in overall job satisfaction.

Discussion. Results of data analysis indicate that nurses are "somewhat satisfied" with their jobs in general. This finding supports previous research that found the level of job satisfaction to be "moderate" and recommended that officials pay more attention to job satisfaction of nurses due to its tremendous consequences.[13]

Results show that the most important determinants of job satisfaction are: Recognition, technical aspects of supervision, work conditions, utilization of skills, pay, and job advancement.

Consistent with prior research,[1,17] recognition remains an important obstacle to nursing in KSA. Findings from this study suggest that recognition is

an important determinant of overall job satisfaction, therefore adequate measures should be implemented to enhance recognition of nurses among physicians, patients and others. Technical aspects of supervision in this study refer to the ability of supervisors to make accurate technical decisions and provide technical guidance. Technical aspects of supervision have an important impact on nurses' job satisfaction in this study, and have been previously found to affect satisfaction of nurses in other countries.[4,11] Findings also emphasize what has previously been established about the impact of work conditions (including working hours, shifts, physical environment, and policies) on job satisfaction of nurses.[6] Consistent with previous studies,[4,6,18] utilization of skills including feelings of challenge and variety of tasks performed was found to be an important determinant of job satisfaction of nurses'. Therefore, it is recommended that the tasks and responsibilities performed by all nursing staff categories in MOH are reviewed in order to fully utilize their skills and expertise and enrich their jobs to enhance feelings of challenge, variety, responsibility, and growth associated with performing nursing duties. Expansion of nursing roles and responsibilities, and provision of advanced technical training will improve feelings of job significance and pride among nurses, which will consequently improve their intrinsic satisfaction. An important finding of this study is that nurses were satisfied the least with pay and opportunity for advancement. This result is consistent with finding from previous research,[4,19] and has important indications for nurses in KSA. First, the low scores on satisfaction with pay support what has often been claimed that nurses feel that they are inadequately compensated for their work in MOH hospitals. Dissatisfaction is also a result of inconsistent salary scales across hospitals in various governmental sectors, and even within the same hospital among

different nationalities or employment arrangements (such as contracts with operating companies or positions in the civil services set health related jobs salary scale). This situation leads to feelings of inequity as reported before. Individuals compare the ratio of the input they bring to their job (effort, skills, expertise, for exmple) to the output they receive from it (salary, benefits, recognition for example).[20] If the ratio of input to output for the individual was different from that of others doing the same work in the same organization or in other organizations, feelings of inequity would surface.[20] Therefore, it is strongly recommended that official in MOH address these issues by reviewing and modifying salary scale to achieve consistency within government sectors and within MOH.

Further, results regarding opportunity for advancement indicate that nurses are not only concerned with natural promotion based on tenure, but also with improving their own skills through continuing educational programs in order to keep up with advances in their field considering the rapid changes in modern nursing science and technology. The importance of continuing education as a determinant of work satisfaction has been confirmed by prior research. In a study of nurses in long term care facilities, it was found that nurses who participated more in continuing education activities reported higher levels of overall job satisfaction and concluded that nurses need to be knowledgeable with regards to current research-based information, which is obtained through continuing education activities.[21] Prior research has also proven that promotional opportunities are correlated with job involvement, which indicates the importance of this aspect of job satisfaction to performance in general.[21] Therefore it is recommended that well formulated strategies for continuing education and licensing of nurses be set in order to improve level of job satisfaction and consequently performance and quality of care.

Consistent with previous research[9,10] the current study has found no significant differences in overall satisfaction according to most individual characteristics including: Gender, nationality, age, job tasks, monthly salary, and marital status. However, these results are inconsistent with findings of a previous research study in Riyadh, KSA.[13] This study also supports findings of previous studies, about the positive relationship between job satisfaction and tenure in the organization.[14,15]

Results regarding the relationship between job satisfaction and educational background show that nurses who have a higher education (Bachelors and Masters degrees) are less satisfied than their colleagues with a lower educational level. Previous research findings are inconsistent in this regard. One study found no significant relationship between job satisfaction and level of education,[14] another found only a weak correlation existed between the to.[15] It is however possible to conclude based on findings from this study that job satisfaction decreases as level of education increases among nurses. This could be attributed to several factors. Dissatisfaction could be an indication of inadequate reward and recognition for the level of skill and expertise that highly trained nurses' offer. It is also consistent with the equity theory[20] that suggests that workers compare what they bring to the job situation in terms of skills and expertise to the reward they receive in return. Dissatisfaction among highly trained nurses could also be a result of a feeling of inadequate utilization of skills. Nursing tasks and responsibilities may be similar across all nursing staff categories regardless of educational backgrounds. This may contribute to the lack of challenge and variety in tasks performed, and would consequently impact on internal job satisfaction. Therefore attention needs to be directed towards the problem of lower job satisfaction among highly qualified nurses, and adequate measures need to be implemented to fully utilize the skills and expertises offered by this group, and properly compensate them for their contribution.

This study has attempted to shed light on job satisfaction of nurses in MOH hospitals in KSA. Several key factors that need to be addressed were identified in order to improve recruitment and retention into the profession and overcome shortages in qualified nurses. Although the study has been conducted in Riyadh, KSA it provides valuable insights that maybe generalized to all nurses working in this vital sector of the Saudi Healthcare system. Important issues were raised regarding continuing education and utilization of skills of nursing manpower. The study has important implications for the way that MOH hospitals are managed and for its policies regarding several aspects of human resources. Efficient and effective use of nursing staff as a valuable resource needs to be addressed. Society in general needs to frankly address its stand towards allied health professionals in general and nurses in particular. It is important to realize that in order for real development in health care to take place, important human resources management issues need to be addressed effectively.

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