

Job Satisfaction of Saudi Nurses Working in Makkah Region Public Hospitals, Saudi Arabia

Mohammed Alshmemri, Lina Shahwan-Akl and Phillip Maude

School of Health Sciences (Nursing and Midwifery), RMIT University, Melbourne, Australia.

Email: shmemri@gmail.com

Abstract: Background: Saudi Arabia has over many decades relied exclusively on the recruitment of expatriate nurses to service its hospitals. Whilst Saudi nurses have been increasing in numbers, it is important that they be satisfied with their jobs in order to maintain and retain the National Nursing Workforce in Saudi Arabia. This research study explored the job satisfaction levels of Saudi national nurses working in three main public hospitals in the Makkah region of Saudi Arabia. **Methods:** A descriptive, explorative study used a mixed-method design to capture the job satisfaction levels of Saudi nurses working in three public hospitals in order to identify the factors that influence levels of job satisfaction among them. Data were collected from 272 Saudi national nurses who were surveyed to identify which factors they believe led to job satisfaction. Herzberg's Motivation-Hygiene Theory has been utilised as the theoretical framework to guide this study. **Results:** This study found that Saudi nurses working in public hospitals were not satisfied with their jobs. The finding in this study indicated that more female Saudi nurses were dissatisfied with their jobs than the male nurses. Nurses who are dependent adults, and who have worked in public hospitals for a period of 5-10 years were dissatisfied with their jobs. Furthermore, nurses who have experience of 4-10 years in nursing were also dissatisfied. **Conclusion:** The findings of this study will provide insights that may influence recruiting, retaining, and increasing the number of female and male Saudi nationals who study nursing, subsequently alleviating the shortage and bringing stability to the Saudi nursing workforce in public hospitals.

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1. Introduction

Nurses' job satisfaction has been studied for over many decades. Nurses make up the largest group of healthcare providers working in healthcare services and they contribute significantly to the quality and delivery of patient care (Al-Aameri, 2000; Chan, Tam, Lung, Wong, & Chau, 2013). Nurse shortages and high nurse turnover continue to be among the most vexing problems for healthcare systems worldwide. These two issues have become of great concern to many developed, developing and under developed countries worldwide. Many factors affect the worldwide shortage of nurses; these include a decrease in the number of students wishing to study nursing, a shortage of nurses entering the profession following graduation and job dissatisfaction among practicing nurses, which results in many nurses leaving the profession (Longo, 2007; Miller, 2007). Furthermore, Studies show that one of the most important factors causing the shortage of nurses is their dissatisfaction with their jobs (Miller, 2007). In Saudi Arabia the shortage of Saudi nurses is of a major concern as it greatly affects the efficiency and productivity of the health care system (Al-Aameri, 2000). In Saudi Arabia, several research studies that have been conducted in various geographical regions have

examined job satisfaction among combined cohorts of Saudi and non-Saudi nurses working in both the private and public healthcare sectors. However, there is a paucity of literature relating to job satisfaction and rates of job dissatisfaction among national Saudi nurses. This study identifies and explores the level of job satisfaction among female and male Saudi nurses working in public hospitals in the Makkah region, one of the largest regions of the Kingdom of Saudi Arabia.

Statement of the Problem

The healthcare system and the health infrastructure in Saudi Arabia are improving and developing gradually. Nevertheless, the nursing shortage and instability of national nurses have become critical issues for health policymakers. Most nurses working in the healthcare system come from other countries, and if they quit their jobs for any reason, then the Saudi healthcare system and public hospitals will be faced with a critical situation. Saudi nurses' job satisfaction is important in order for the healthcare system to maintain a stable workforce and reduce the shortage of nurses (Al-Dossary et al., 2012). Saudi Arabia is currently facing a significant shortage and turnover of Saudi nurses. Hence, the country is faced with the need to recruit and retain Saudi national nurses. Identifying and exploring the

level of job satisfaction of Saudi nurses could help health managers to support the Ministry of Health (MoH) and policymakers with clear information about the factors that influence job satisfaction of Saudi nurses working in public hospitals. This information could potentially promote the stability of Saudi nurses in the Saudi healthcare system.

Aims and Significance of the Study

This research aims to describe and explore the level of job satisfaction of Saudi nurses working in public hospitals, as well as nurses' perceptions of the causes of rapid turnover in the national nursing workforce. Further, it offers recommendations and possible solutions for the shortage of Saudi nurses in public hospitals.

The significance of this research was its attempt to identify and assess factors that influence job satisfaction in order to prevent the collapse of the Saudi public healthcare system. As the maintenance of public hospitals and the provision of quality healthcare to the Saudi public are at stake, this issue is of utmost interest to policymakers in the MoH, nurse managers, directors and nurse educators. This study could also help the MoH to provide and encourage the stability of Saudi nurses and to increase the supply of Saudi nursing staff in public hospitals.

Research variables

Independent variables: The demographic or independent variables of the study were divided into two groups: demographic characteristics, included gender, age, marital status, number of dependent children, number of dependent adults, qualifications, salary. It also included job characteristics and practical experience, such as nature of the employing hospital, position, duration of employment at the hospital, number of weekly working hours and overall experience in nursing.

Dependent variables: These were job satisfaction, which was divided into two parts: motivation and hygiene. Motivation factors, or intrinsic factors, include achievement, recognition, the nature of the work itself, responsibility, advancement, and the possibility for growth. Hygiene factors or extrinsic factors included company policies and administration, supervision relationship, interpersonal relations, working conditions and salary (Herzberg, 1966).

2. Conceptual Framework

A conceptual framework helps guide research and can assist researchers to observe phenomena. Burns and Grove (2005) define a conceptual framework (models) as 'a set of highly abstract, related constructs that broadly explain phenomena of interest, express assumptions and reflect a philosophic stance (p 128). The conceptual framework used in this study is the 'motivation-hygiene theory', which is also

known as Herzberg's two-factor theory or Herzberg's dual-factor theory.

In 1959, Frederick Herzberg and his colleagues developed the motivation-hygiene theory, which was built on Maslow's hierarchy of needs (Jones, 2011). Herzberg created a two-dimensional paradigm of factors influencing people's attitudes towards work. He conducted studies on job satisfaction to determine which factors in an employee's work environment caused satisfaction or dissatisfaction.

Herzberg's theory is one of the most significant content theories in job satisfaction (Dion, 2006). It has been used widely by researchers in nursing job satisfaction (i.e., Best & Thurston, 2004; McGlynn et al., 2012; Hegney et al., 2006; Jones, 2011; Kacel et al., 2005; Lephala, 2006; Mitchell, 2009; Russell & Gelder, 2008). The main concept of the theory is the difference between motivation and hygiene factors or otherwise known as intrinsic and extrinsic factors.

The two factors that have an effect on job satisfaction are divided into two sets of categories. Firstly, those associated with 'the need for growth or self-actualisation', and became known as the motivation factors. Motivation factors include the advancement in the job or career, the work itself, the possibility for growth and development, the responsibility given to the worker, feeling recognised, and the sense of achievement (Herzberg, 1966; Herzberg, 2003). The second category of factors is related to 'the need to avoid unpleasantness', and is known as hygiene factors. Hygiene factors include company policies and administration, supervision, interpersonal relations, working conditions, salary, personal life, status and security (Herzberg, 1966; Herzberg, 2003). According to Herzberg's theory, hygiene factors are less important to job satisfaction than are motivational factors. Motivating events lead to job satisfaction because of a need for growth or self-actualization (Herzberg, 1966; Herzberg, 2003). Motivators are intrinsic to the job, and Herzberg described hygiene factors as extrinsic to the job. Moreover, he mentioned that the opposite of job dissatisfaction is no job dissatisfaction; likewise, the opposite of job satisfaction is no job satisfaction (Herzberg, 1966; Herzberg, 2003). It is important to note that poor hygiene factors can cause job dissatisfaction, while better hygiene factors can reduce dissatisfaction. Importantly, hygiene factors cannot cause job satisfaction. While the presence of motivational factors can produce job satisfaction, their absence leads to no job satisfaction.

Herzberg's theory is utilised as a framework in this Saudi Arabian job satisfaction study for many reasons. The hygiene and motivation factors correlated with the Nursing Workforce Index (NWI-R) questionnaire, which was used in the quantitative

phase to explore the factors that influence job satisfaction and to identify the level of job satisfaction in Saudi nurses working in public hospitals in the Makkah region. The second reason to use Herzberg's theory was to assess the effects of leadership style, work itself, the possibility for growth, policy and administration and the influence of salary in Saudi nursing and to identify the motivating factors for nurses working in public hospitals. Finally, the literature review revealed that this is the first study that utilised Herzberg's theory among Saudi nurses working in public hospitals in Saudi Arabia.

3. Methodology (design, sample and tool)

This was a mixed method study design that had two concurrent phases: Quantitative and qualitative data were collected and analysed to explore and determine the factors that influence the job satisfaction of Saudi nurses working in public hospitals in the Makkah region, Saudi Arabia. The quantitative method was used to examine and identify relationships between the independent variables and the dependent variable, and the satisfaction of Saudi nurses with their jobs. A questionnaire that was completed by 272 to collect the demographic data of the registered Saudi nurses and to elicit information to identify the factors that led to satisfaction with their jobs. The second phase of the study involved face to face interviews with 17 Saudi nurses who occupied different nursing positions. The interviews were conducted to gain an in depth understanding of what the concept of job satisfaction means to Saudi nurses with the aim to identify and describe the factors that influenced the level of job satisfaction of Saudi national nurses who worked in general public hospitals in the Makkah region.

The study used a convenience non-probability sampling strategy, and all registered Saudi nurses participated voluntarily. Seven hundred and ninety-one envelopes were distributed across the three hospitals in Makkah region. Four hundred and thirteen envelopes were provided to the nursing administration office of the King Fahd General Hospital in Jeddah, 240 envelopes to the King Abdul Alziz Hospital in Makkah and 138 envelopes to the King Faisal General Hospital in Taif. A total of 272 registered Saudi nurses completed and returned the questionnaires and the response rate of this study was 34 %.

The research instrument was the Nursing Work Index-Revised (NWI-R, 2000). The NWI was originally developed by Kramer and Hafner (1989). It consisted of 65 items that were designed to measure the organisational characteristics that aid nurses' job satisfaction, their ability to provide quality care, and their perceived productivity in hospitals (Kramer & Hafner, 1989). This instrument was improved by Aiken's team (2001) to measure the organisational

climate that best contributed to nurses' feelings of satisfaction in hospital settings and the revised instrument Nursing Work Index-Revised (NWI-R) consisted of 57 items. Many researchers have used this instrument to study and identify nurses' job satisfaction, hospital environment, organisational climate and burnout (Aiken & Patrician, 2000; Jackson-Malik, 2005; Kramer & Hafner, 1989; Mitchell, 2009). In line with this framework, the NWI-R was used to measure Saudi nurses' job satisfaction and identify the factors that might influence job satisfaction among Saudi nurses based on two groups of factors called motivation (or intrinsic factors) and hygiene (or extrinsic factors).

The NWI-R was divided into two main parts. The first part was related to the motivation factors and included 24 items, and the second part focused on the hygiene factors and consisted of 33 items.

Pilot study

The NWI-R survey was piloted on five Saudi nurses to test feasibility, clarity and whether the back translation of each item into the Arabic language. The Arabic questions were written under the English questions for all survey items to increase clarity and to make sure that all participants understood the survey easily. The results of the pilot study showed that there was no difficulty in understanding the questionnaires and the instrument were clear. The respondents agreed that the Arabic translations clarified the questions being asked. Hence, the content of the questionnaire was not changed, but was modified by the addition of the Arabic translation under each item. The responses of the pilot study were not included in the main study.

Validity of the instruments.

The validity of the NWI-R questionnaire has previously been tested in many studies and the results showed that this instrument can accurately measure job satisfaction, hospital environment, organisational climate and burnout (Aiken & Patrician, 2000; Kramer & Hafner, 1989; Joyce & Crookes, 2007; Mitchell, 2009). It has been established that the NWI-R questionnaire describes the characteristics of Magnet hospitals and measures nursing values in relation to job satisfaction and productivity (Joyce & Crookes, 2007; Mitchell, 2009). The Magnet hospital researchers tested the content validity of the NWI and they found that the original questionnaires included the characteristics of the Magnet organisations, showing support for the content validity of the tool (Kramer & Hafner, 1989). To ensure the content validity of the NWI-R for Saudi nurses and to identify the level of job satisfaction of Saudi nurses, the questionnaire's validity was tested for the current study through a pilot study.

Reliability of the instruments.

Cronbach's alpha was used to measure the reliability of this questionnaire. Aiken and Patrician (2000) mentioned that the NWI-R had strong reliability scores and overall Cronbach's alphas was 0.96. The reliability test in this study (Cronbach's

Alpha) for motivating factors was 0.92 and for hygiene factors it was 0.93. The total reliability statistic for the current study was 0.96. Table 1 shows the reliability statistics for the total study, motivation and hygiene factors.

Table 1: The Reliability Statistics

Reliability Statistics (Cronbach's Alpha)		
Factor	α	Number of Items
Motivation	.92	24
Hygiene	.93	33
Total	.96	57

Data Collection

The researcher asked the directors of the three public hospitals to assist in advertising the study through the nursing office at each hospital, via the nursing education office and at the general nursing meetings. The study was also advertised through letters posted on all the nursing boards and the nursing stations on the wards of the three hospitals. The researcher visited each hospital in the Makkah region and met the Directors of Nursing to give a brief explanation about the purpose of the study and informed them about the nature of the research and the contributions that were expected from them to implement the project. Two weeks following advertising the study, the envelopes were distributed to Saudi staff nurses. The participants were required to complete the anonymous NWI-R questionnaire and demographic questions, place it in the envelope provided, and return it to a sealed box that was placed in the main nursing office at each of the three hospitals and was clearly numbered and labelled 'Job Satisfaction Survey'. To insure anonymity and confidentiality of all participants only group data were reported.

Data Analysis

The quantitative data collected in this study were analysed using the SPSS Version 18.0 software.

There was a low number of missing values in the completed surveys, and to avoid errors in statistical analysis, missing data was statistically excluded by pairwise exclusion (Pallant, 2011). Data were presented using descriptive statistics in the form of frequencies and percentages and means and standard deviations for quantitative variables. Quantitative continuous data were compared using Student's t-test for comparisons between two groups and analysis of variance (ANOVA) for comparisons between more than two groups. The data analysis conducted included descriptive analysis and inferential techniques. The statistical test of significance, or p-value, in this study was set at <0.05.

4. Results

The analyses of results was divided into two main parts: the first part presented the descriptive statistics (such as measures of frequency, means and standard deviations for each item of the demographic questionnaire). The second part of the analysis included inferential statistics, whereby ANOVA and t-tests were utilised to identify differences in job satisfaction and the motivation and hygiene factors among participants.

Descriptive Statistics

Job satisfaction was examined across sets of independent variables. The first set included the demographic characteristics of the participants: gender, age, marital status, number of dependent children, number of dependent adults, qualifications and salary. The second set included job characteristics and practical experience, such as the employing hospital, the position held at the hospital, duration of work experience at the hospital, number of weekly working hours and overall experience.

Demographic and personal characteristics

This section details the demographic and personal characteristics of the Saudi nurses participating in the study and provides the response to the first seven items of the questions demographic section. Table shows that 61 % of the nurses were female and 39 % were male. Thirty-one per cent of the nurses were less than 25 years of age, 54 % were 25–35 years and 15 % were aged 36 years and over. More than half (53 %) of the nurses were single, 43 % were married and 4 % were divorced or widowed. More than one-third (38 %) of the nurses were responsible for dependent children, while 62 % were not responsible for dependent children. Also it was noted that 40 % of the participants were responsible for dependent adults and 60 % were not responsible for dependent adults.

The majority (80 %) of the Saudi nurses had a diploma and 20 % of them held a BSN or postgraduate degrees in nursing science. Participants' salaries ranged according to their qualifications and seniority.

The ranges were as follows: 8 % received a monthly salary of 1,500–5,000 SR (400–1,333 US\$); 64 %

receive 5,001–10,000 SR (1,334–2,666 US\$); and 28 % receive over 10,000 SR (2,667 US\$).

Table 2: Demographic and Personal Characteristics of the Study Group (N=272)

Characteristics	<i>n</i>	%
Gender:		
Male	107	39
Female	165	61
Age groups:		
Less than 25 years	85	31
25–35 years	147	54
36 years and over	40	15
Marital status:		
Single	144	53
Married	117	43
Divorced or widowed	11	4
Number of dependent children:		
None	170	62
Have dependent children	102	38
Number of dependent adults:		
None	163	60
Have dependent adults	109	40
Qualifications:		
Diploma	219	80
Bachelor's degree or postgraduate qualification	53	20
Salary:		
1,500–5,000 SR* (400–1,333 US\$)	21	8
5,001–10,000 SR*(1,334–2,666 US\$)	174	64
10,001–15,000 SR*(2,667–4,000 US\$)	59	22
More than 15,001 SR*(4,001 US\$)	18	6

*Note: the conversion was as of March 2011.

Job characteristics and practical experience.

The responses to the final five items of the demographic section of the questionnaire are provided in Table 3. The employing hospital for 39 % of the nurses was Hospital A in Jeddah; 37 % were from Hospital B in Makkah and 24 % were from Hospital C in Taif. The respondents were registered Saudi nurses in various nursing positions. The majority (73 %) of them were working as staff nurses; 8 % were head nurses; another 8 % were nurse managers (including

supervisor, deputy or chief nursing officer) and 11 % were in other nursing positions (such as nursing education and quality control). Approximately 87 % of the participants were working less than 50 hours per week and 13 % of them were working more than 50 hours a week.

Almost all (63 %) of the participants indicated that they had been working in their hospital for less than 5 years, 20 % of them had been working there for between 5 and 10 years and 17 % of them had been

working in the hospital for more than 10 years. Over 46 % of the sample reported that they had less than 4 years of experience in nursing; 38 % had between 4

and 10 years of nursing experience; and only 16 % of the participants indicated that they had more than 10 years of nursing experience.

Table 3: Job Characteristics and Practical Experience of the Study Group (N=272)

Characteristics	N	%
Employing hospital:		
Hospital A in Jeddah	107	39
Hospital B in Makkah	100	37
Hospital C in Taif	65	24
Position:		
Staff nurse	198	73
Head nurse	22	8
Nursing manager (Supervisor, Deputy or Chief of Nursing)	23	8
Other (nursing education and quality control nurses)	29	11
Number of weekly working hours:		
50 hours or less	238	87
More than 50 hours	34	13
Duration of employment in the hospital:		
Less than 5 years	172	63
5–10 years	55	20
More than 10 years	45	17
Overall experience:		
Less than 4 years	126	46
4–10 years	103	38
More than 10 years	43	16

Inferential Statistics

Inferential statistical analyses were conducted to examine which demographic or independent variables of the study (gender, age, marital status, number of dependent children, number of dependent adults, qualifications, salary, hospital, position, number of weekly working hours, duration of employment at the hospital and overall experience) predicted the dependent variable, job satisfaction (motivation and hygiene). ANOVA and t-tests were utilised to identify the differences in job satisfaction, motivation and hygiene scores among Saudi nurses.

Motivation factors affecting job satisfaction.

The results demonstrated that the mean satisfaction scores in relation to motivating factors—including job advancement, the work itself, possibility for growth, responsibility, recognition and personal

achievement—were significantly higher among males (M=2.71, SD=0.50) than females (M=2.55, SD=0.53), (p<0.05).

Table 4: Satisfaction with Motivating Factors According to the Demographic Characteristics of the Study Group (N=272)

Characteristics	M	SD	Significance
Gender:			
Male nurses	2.71	0.50	t(235)=2.36 p=0.019
Female nurses	2.55	0.53	

The results indicated that nurses who have no dependent adults to care for were significantly more satisfied with the motivating factors (M=2.69,

SD=0.50) compared to nurses who had dependent adults in their care (M=2.51, SD=0.53), ($p < 0.05$).

Table 5: Satisfaction with Motivating Factors According to the Demographic Characteristics of the Study Group (N=272)

Characteristics	M	SD	Significance
Number of dependent adults:			
None	2.69	0.50	t(235)=2.64 p=0.009
Have dependent adults	2.51	0.53	

The results indicated that the length of time working in the hospital, the ANOVA revealed a significant overall effect. Follow-up tests using the Tukey post-hoc procedure ($\alpha=0.05$) indicated that

nurses who had worked for a period of 5–10 years were significantly less satisfied with the motivating factors than nurses who had worked in the hospital for less than 5 years ($p=0.023$).

Table 6: Satisfaction with Motivating Factors According to the Job Characteristics and Practical Experience of the Study Group (N=272)

Characteristics	M	SD	Significance
Duration of employment in the hospital:			
Less than 5 years	2.66	0.52	F(2,234)=3.54 p=0.030
5–10 years	2.43	0.49	
More than 10 years	2.63	0.53	

In connection with duration of nursing experience in the hospital, the ANOVA test showed a significant overall effect. Follow-up tests using the Tukey post-hoc procedure ($\alpha=0.05$) indicated that nurses who had overall experience of 4–10 years were

significantly less satisfied with motivating factors than nurses who had more than 10 years of experience ($p=0.005$) and less than 4 years of experience ($p=0.024$).

Table 7: Satisfaction with Motivating Factors According to the Job Characteristics and Practical Experience of the Study Group (N=272)

Characteristics	M	SD	Significance
Overall experience:			
Less than 4 years	2.66	0.52	F(2,234)=6.075 p=0.003
4–10 years	2.47	0.49	
More than 10 years	2.78	0.52	

Hygiene factors affecting job satisfaction.

The results demonstrated that the mean satisfaction scores in relation to hygiene factors (including interpersonal relationships in the hospital, salary, hospital policies and administration, supervision and working conditions) were no statistically significant differences among Demographic Characteristics. However, hygiene factors' effects on job characteristics, it was found that

there were nurses significantly higher among length of total nursing experience, the ANOVA tests revealed a significant impact overall. Follow-up tests using the Tukey post-hoc procedure ($\alpha=0.05$) indicated that nurses who had overall experience of 4–10 years were significantly less satisfied with the hygiene factors than nurses who had an overall experience of more than 10 years ($p=0.004$) and those who had less than 4 years' experience ($p=0.016$).

Table 8: Satisfaction with Hygiene Factors According to Job Characteristics and Practical Experience of the Study Group (N=272)

Characteristics	M	SD	Significance
Overall experience:			
Less than 4 years	2.72	0.51	F(2,213)=6.595 p=0.002
4–10 years	2.52	0.46	
More than 10 years	2.84	0.49	

5. Discussion

According to Herzberg's theory (1966), motivation factors are those that contribute to job satisfaction, while motivation encompasses the following six factors: advancement in the job or career, the work itself, the possibility for growth and development, the responsibility given to the worker, feeling recognised and a sense of achievement. The analysis of the data in this study showed that the primary factors influencing Saudi nurses' job satisfaction are gender, the number of dependent adults that they are responsible for, their duration of employment in the hospital and their overall nursing experience.

Gender

In this study, 61 % of the subjects were female nurses. The data analysis showed that the female nurses at the public hospitals in the Makkah region were significantly less satisfied in their jobs than the male nurses ($p=0.019$). This result is not surprising in view of the Saudi culture and the public image Saudi society holds of the nursing profession (refer to Table 4), in that Saudi nurses are still subject to a negative public image. Surprisingly, this negative regard for nursing as a profession is also seen in developed societies such as Australia (Takase, et al., 2006). Takase et al. (2006) studied the impact of the perceived negative public image on nursing in Australia and found that it negatively affects nurses' work behaviour, job satisfaction, turnover intentions and performance.

This result aligned with Al-Ahmadi's (2009) study in the Riyadh region of Saudi Arabia, which investigated the factors affecting the performance of both Saudi and non-Saudi nurses in 15 hospitals, and found that job satisfaction was significantly lower among female nurses compared to male nurses. Similarly, in the United States Sochalski (2002) found that the level of job satisfaction among female nurses was lower than that of male nurses. In contrast to the findings of the present study and those of Sochalski and Al-Ahmadi showing greater satisfaction among male nurses compared to female nurses, Tourangeau and Cranley (2006) found that the female nurses are more satisfied in their jobs than are male nurses in Ontario, Canada, demonstrating some contradictions in global results.

Among the most important factors affecting nurses in Saudi Arabia are the norms and values of the Islamic way of life, which are characterised by honour, strong family bonds and the protection of females. Although there is a prevailing social agreement that women may work, little agreement exists about the circumstances and type of work in which women can engage (Tumulty, 2001). Occupations that are seen as appropriate for women include teaching, social work, banking and marketing and other occupations in which the woman is working in an environment with other women. Nursing is considered a less desirable job option for Saudi women, and Saudi female nurses experience less job satisfaction for several reasons, which may include the way that their culture and society views nursing in terms of the widespread lack of respect for nurses by the public. Saudi nurses suffer from a lack of professional respect from their relatives, patients, allied health colleagues, doctors and the community at large. However, in the ancient history of nursing in Islam and during the times of the Prophet Mohammed (peace be upon him), nursing was a respectable career for Muslim women due to the support and appreciation from the Prophet, Mohammed (peace be upon him) and the Muslim army (Miller-Rosser et al., 2006).

Number of dependent adults

Another factor that affected job satisfaction among the participants of this study was the number of dependent adults that they were responsible for. The t-test results indicated that the relationship between level of job satisfaction and number of dependent adults was statistically significant ($p=0.009$). It was found that nurses who had no dependent adults at home were significantly more satisfied with the motivation factors than nurses who had dependent adults at home (refer to Table 5). In Saudi Arabia, within the Islamic context and according to the local culture, offspring have clear responsibilities to care for their parents and extended family members, particularly the elderly. The literature discussed the influence of dependent adults on the job satisfaction of employees (Brooks & Anderson, 2004; Khani et al., 2008). This finding was also mirrored in a study by Almalki et al. (2012), who studied the quality of work life among primary healthcare nurses in the Jazan

region of Saudi Arabia and found a significant difference in job satisfaction between nurses with dependent adults and those without dependent adults. Saudi nurses who are responsible for dependent adults were significantly less satisfied with their jobs due to the pressures put on them by their society, culture and the lack of support they receive for providing care to their elderly relatives. Family relationships are very important in the Saudi community, and they are influenced by Islamic cultural values. According to Mebrouk (2008), family is essential in the life of Muslims and Saudis. Hence, Islamic ethical principles play a significant role in the family's life, including standards of behaviour and attitudes that influence personal relationships between family members, such as honesty, mercy, sympathy, respect and kindness.

Islam has a very strong position in strengthening Saudi culture and shapes most of the cultural norms and practices. It encourages Muslims to take care of dependent adults, especially parents, and to place them in the highest esteem. Priority is always given to the parents' needs over the individual's own needs.

Nurses who have dependent adults have more responsibility, stress and work at home than nurses who do not have dependent adults. Generally, employees in Saudi Arabia do not receive any monetary support or health and social services to assist in the care of their dependent adults. Lack of support for the nurses' ailing family members was found to be a source of dissatisfaction among nurses (Almalki et al., 2012). Other sources of job dissatisfaction among nurses were the inadequate vacations, long working hours and lack of time with their parents and relatives.

Duration of employment

The third factor that affected job satisfaction among the nurses in this study was the duration of employment. A one-way ANOVA test was performed to examine the relationship between the duration of employment and job satisfaction. The results revealed that the Saudi nurses who had worked for 5–10 years in public hospitals were less satisfied ($p=0.030$) than other nurses. These findings are consistent with the research findings on nurses working in public hospitals elsewhere around the world. The results of a study by Mrayyan (2005) revealed that nurses who worked in public hospitals reported lower levels of job satisfaction than nurses working in private hospitals, and that fewer of them had the intention to stay in their jobs.

Public hospitals in Saudi Arabia are different to other Saudi health sectors such as private hospitals, National Guard Health Affairs, Army Forces Medical Services, ARAMCO private hospitals and university teaching hospitals. All public hospitals in Saudi Arabia provide free healthcare to all patients, Saudi and non-Saudi. However, the private hospitals only

cover Saudi patients who have been specially authorised to be provided with treatment, or those who have private health coverage or employees working in the organisation. Thus, public hospitals are always overcrowded and working to full capacity, because most patients only come to the public hospitals when they are extremely ill. According to Brown (2005), patients in Saudi Arabia usually do not visit physicians in clinics or hospitals unless they are very ill. Thus, the patients who are admitted to the public hospitals need high intensity care, which also affects the stress levels of the nurses employed in public hospitals.

Nurses in the 5–10 year employment group were comparatively less satisfied than nurses who have been employed for less than 5 years and those who have been employed for longer than 10 years. There are many factors that influence the job satisfaction of nurses working in public hospitals. These factors include work stress and long working hours.

Nurses employed in public hospitals may experience more work stress than those nurses employed in other health sectors. Stress can influence employee satisfaction at work. The role of stress in nurses' work and careers has been found to result in job dissatisfaction among registered nurses (Hoffman & Scott, 2003).

Nurses who have worked in public hospitals for 5–10 years have more responsibility than nurses who have worked less than 5 years, and that they have more work stress than nurses who have worked for more than 10 years. Many nursing studies have mentioned that nurses' working hours are linked with and influence their job satisfaction (Almalki et al., 2012; Hegney et al., 2006). A study in Queensland, Australia, revealed that nurses in the public sector were more likely to perceive their working hours as unsatisfactory compared to nurses in the private sector (Hegney et al., 2006).

Saudi female nurses find that shift work with long working hours is not compatible with their families' expectations. This notion was stated by Al-Otaibi, Makhdom and Ibrahim (2012), who found that among the factors causing less satisfaction among female Saudi nurses were the unmet familial and social demands as a result of the limited free time remaining after their long working hours. In Saudi Arabia, a study by Almalki and colleagues (2012) found that the majority of Saudi nurses were dissatisfied with many factors, including their long working hours. According to Al-Omer (2003), there are many reasons why Saudi females do not choose nursing as a career and feel less satisfied with the profession. Among these reasons were the long working hours and shift work. The long working hours and sometimes the schedule of extended overnight

working hours is culturally sensitive and sometimes unacceptable to Saudi families.

Overall experience

In this study, Saudi nurses who had 4–10 years of work experience were less satisfied than other nurses working in Saudi public hospitals. The demographic factor that affected motivation, hygiene and job satisfaction among the Saudi nurses in this study was their overall nursing experience (refer to Table 5 and Table). A one-way ANOVA test was performed to examine the relationship between the Saudi nurses' overall years of experience and job satisfaction. It was revealed that the Saudi nurses who had 4–10 years of experience were significantly less satisfied in relation to motivational factors than those nurses who had either more than 10 years of nursing experience or less than 4 years of experience ($p=0.003$), and it also revealed that this group were more dissatisfied in relation to the hygiene factors than other nurses with either less than 4 or more than 10 years of experience ($p=0.020$).

This finding aligned with those of Kavanaugh *et al.* (2006), who found that the number of years of professional experience was commonly linked to healthcare professionals' job satisfaction. In Saudi Arabia, Al-Ahmadi (2002) also demonstrated that nurses' job satisfaction was positively associated with the number of years of experience.

These results are consistent with many other studies. For example, Kacel *et al.* (2005), who studied nurse practitioner job satisfaction in a Midwestern state of the United States, found that nurses who were new graduates and had less practical experience were more satisfied with nursing than other nurses. In contrast, Almalki *et al.* (2012) showed that nurses who have more experience in nursing were more satisfied than nurses with less experience. Further, Al-Aameri (2000) found that older nurses and more experienced nurses were more satisfied and committed to their hospitals than younger nurses. However, young nurses who have a working experience of 4–10 years are less satisfied, perhaps due to the lack of recognition from their leaders and managers.

Recognition is important to employees and can influence job satisfaction. Al-Ahmadi (2002) reported that there are many factors that determine job satisfaction, and that one of these is recognition. Not only is this finding consistent with these studies, but it is also consistent with Herzberg's theory. According to Herzberg's (1966) theory, recognition is one of the factors that determine job satisfaction. Older and experienced nurses receive more respect and greater recognition from their co-workers, managers and most other people. Therefore, this leads them to be more comfortable and satisfied with nursing and the hospital environment. Recognition of the performance of

nurses has a strong influence on job satisfaction and intention to stay in the profession; however, lack of recognition and appreciation can have a negative effect on intention to stay in the profession (Abualrub & Al-Zaru, 2008).

Finally, Saudi nurses who had between 4 and 10 years of experience in nursing were less satisfied with their jobs and reported a lack of recognition from the nursing manager and hospital leadership. This group of nurses seemed to be disillusioned with nursing and had low motivation, more family responsibilities, fewer opportunities to advance into leadership roles and limited possibilities for professional growth. All of these factors contributed to them being less satisfied with their jobs.

The results of this study support Herzberg's theory, which asserts that the hygiene factors are less important to job satisfaction; however, the motivation factors are most important and can lead to job satisfaction. This theory seemed to identify and explain the phenomena of job satisfaction among Saudi nurses working in public hospitals in Makkah region of Saudi Arabia. The results indicated that the mean job satisfaction scores in relation to motivating factors were significantly lower among female nurses than male nurses and among nurses who do not have dependent adults. Nurses who had worked in the hospitals for 5–10 years and nurses who had overall experience of more than 4 years and less than 10 years were significantly less satisfied with the motivating factors than other nurses groups.

Recommendations

Recommendations for Saudi policy makers are to develop policies to reduce nursing turnover and maintain the stability of the Saudi nursing workforce in public hospitals. Nurses who perform well should be encouraged by providing them with formal recognition at work, job promotion and higher duty opportunities, educational incentives, continuing educational programs, and financial incentives. According to Herzberg's theory, such incentives and recognition will assist in increasing the retention rate and job satisfaction of the nursing staff. Furthermore, Saudi policy makers need to adopt a new strategic plan to increase the number of highly qualified female and male Saudi nurses. Improving the public's image of nursing as a profession in Saudi Arabia will increase the number of both female and male Saudi nurses.

Conclusion

In the Saudi Arabian healthcare system, the shortage of Saudi nurses working in the public hospitals is a major concern, as it greatly affects the efficiency and productivity of the healthcare sectors

(Al-Aameri, 2000). The stability of the Saudi national nursing workforce is important to maintain the efficient functioning of the Saudi Arabian healthcare system. Identifying and improving the factors that affect job satisfaction among Saudi nurses could help to maintain the stability of Saudi nurses working in public hospitals and increase the number of students enrolling in nursing programs in the future. Overall, this study found that female and male Saudi nurses working in public hospitals in the Makkah region are not satisfied with their jobs. The findings in this study identified the factors that affected Saudi national nurses' job satisfaction and its relation to the shortage of Saudi nurses, and it indicated that female Saudi nurses are not satisfied with their jobs in public hospitals. Nurses who have dependent adults and those who were employed for 5 to 10 years in public hospitals are not satisfied with their jobs.

Furthermore, nurses who have overall experience of 4 to 10 years were dissatisfied with their jobs in public hospitals. These factors affect Saudi national nurses working in public hospitals and influence the levels of satisfaction, thus causing the shortage of Saudi nurses in the public hospitals and perhaps in other health sectors.

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