

# Analyzing Perceptions of Nursing Technicians, Midwifery Technicians, and Nursing Specialists Regarding Factors Influencing Job Satisfaction and Staff Retention in Various Healthcare Settings in Saudi Arabia

**Albannat Munayjil Sulaiman Aljameel<sup>1</sup>**

**Fatimah Mukhleef Saleh Alrashdi<sup>2</sup>**

**Tarfah Hamad A Aldhafeeri<sup>3</sup>**

**Amal Mukhleef Saleh Alrashdi<sup>4</sup>**

**Zainab Munayjil Sulaiman Aljameeli<sup>5</sup>**

**Afaf Hamad A Aldhafeeri<sup>6</sup>**

**Dalal Mnawer Aldhaferi<sup>7</sup>**

1. Nursing Technician
2. Nursing Technician
3. Nursing Technician
4. Nursing Technician
5. Midwifery Technician
6. Nursing Specialist
7. Nursing Technician

## **Abstract:**

**Purpose:** This study aimed to analyze the perceptions of nursing technicians, midwifery technicians, and nursing specialists regarding factors influencing job satisfaction and staff retention in various healthcare settings in Saudi Arabia.

**Methods:** A cross-sectional survey was conducted among 450 nursing staff (150 from each category) working in public and private hospitals using a validated questionnaire. Descriptive statistics, ANOVA, and multiple regression were used for data analysis.

**Results:** Significant differences were found in perceived job satisfaction and intention to stay across the three nursing categories ( $p < 0.05$ ). Nursing specialists reported higher job satisfaction and retention than technicians. Key factors influencing job satisfaction were income, workload, professional development opportunities, and management support. Retention was significantly predicted by job satisfaction, organizational commitment, and work environment ( $R^2 = 0.68$ ,  $p < 0.001$ ).

**Conclusion:** Improving income, workload, professional development, management practices, and work environment could enhance the job satisfaction and retention of nursing staff in Saudi Arabia. Targeted strategies are needed to address the specific needs of each nursing category.

**Keywords:** job satisfaction, staff retention, nursing technicians, midwifery technicians, nursing specialists, Saudi Arabia

## **Introduction:**

Nurses play a pivotal role in healthcare delivery worldwide. However, many countries including Saudi Arabia face challenges in maintaining an adequate nursing workforce due to high turnover rates (Alotaibi et al., 2016). Job dissatisfaction is a key factor driving nurses' intention to leave (Lu et al., 2019). While several studies have examined the job satisfaction of nurses in Saudi Arabia (Alshmemri et al., 2017; Alharbi et al., 2019), there is a paucity of research comparing the perceptions of different categories of nursing staff. This study aims to address this gap by analyzing the factors influencing job satisfaction and retention among nursing technicians, midwifery technicians, and nursing specialists in Saudi Arabia. Understanding the similarities and differences in their perceptions can inform the development of targeted interventions to enhance nurse retention.

Literature Review:

### **1. Concept of Job Satisfaction**

Job satisfaction is a positive emotional state resulting from the appraisal of one's job experiences (Locke, 1969). It is influenced by various factors related to the individual, job, and work environment (Lu et al., 2019). In nursing, job satisfaction is crucial as it affects patient care quality, organizational commitment, and retention (Laschinger, 2008).

## **2. Factors Influencing Nurses' Job Satisfaction**

### **2.1 Income and Benefits**

Competitive salaries and benefits packages are important contributors to nurses' job satisfaction (Alotaibi et al., 2016). In Saudi Arabia, dissatisfaction with pay is a common reason for nurses to consider leaving their jobs (Al-Dossary et al., 2012). A study by Alshmemri et al. (2017) found that 67% of Saudi nurses were dissatisfied with their salaries. Improving compensation could enhance nurse retention.

### **2.2 Workload and Staffing**

High workload and inadequate staffing are major sources of job stress and burnout among nurses (Aiken et al., 2012). A heavy workload hinders nurses' ability to provide quality patient care, leading to job dissatisfaction (Aboshaiqah, 2015). In a study of nurses in Riyadh, 62% reported that their workload was too heavy and affected their job satisfaction (Al-Ahmadi, 2002). Ensuring optimal nurse-patient ratios is crucial.

### **2.3 Professional Development Opportunities**

Access to continuing education and career advancement opportunities influence nurses' job satisfaction and retention (Price & Mueller, 1981). Nurses who perceive their jobs as a dead-end with limited growth prospects are more likely to leave (Chan et al., 2009). In Saudi Arabia, lack of training opportunities is a key factor in nurses' decision to resign from their jobs (Alotaibi et al., 2016). Providing professional development pathways could motivate them to stay.

### **2.4 Management and Supervision**

Nurses' relationships with their managers significantly impact their job satisfaction. Supportive and empowering managerial practices enhance nurses' organizational commitment and retention (Abualrub & Alghamdi, 2012). In contrast, poor supervision and lack of recognition from managers lead to job dissatisfaction (Alotaibi et al., 2016). A study in Saudi Arabia found that 79% of nurses who perceived their managers as unsupportive intended to leave their jobs (Alharbi et al., 2019).

### **2.5 Work Environment and Facilities**

The physical work environment, including the availability of resources and facilities, affects nurses' job satisfaction (Al-Ahmadi, 2002). Inadequate equipment and supplies hinder efficiency and compromise care quality. Poor facilities also negatively impact nurses' health and safety. A study in Jeddah reported that 53% of nurses were dissatisfied with their hospital's resources and equipment (Al-Zahrani, 2011). Improving work environment and infrastructure is necessary.

## **3. Differences Among Nursing Categories**

Nursing staff in Saudi Arabia include several categories such as technicians, specialists, and midwives, who differ in their educational preparation and job roles (Almalki et al., 2011). Previous research has suggested that there may be variations in job satisfaction across different nursing categories and specialties (Gregson & Maatousi, 2020). However, studies comparing job satisfaction and retention factors among nursing technicians, midwifery technicians and specialists in Saudi Arabia are lacking. Addressing this knowledge gap could help develop targeted interventions.

Methods:

### **1. Study Design and Setting**

A cross-sectional survey design was used to collect data from nursing technicians, midwifery technicians, and nursing specialists in Saudi Arabia. The study was conducted in both public and private healthcare settings in Riyadh, Jeddah, and Dammam, the three largest cities in the country.

### **2. Sample and Sampling Procedure**

A stratified random sample of 450 nursing staff, including 150 nursing technicians, 150 midwifery technicians, and 150 nursing specialists, was recruited. The sample size was determined using G\*Power software with an effect size of 0.25, power of 0.80, and alpha of 0.05 for ANOVA. Participants were selected randomly from the employee lists provided by the hospitals using a random number generator.

Inclusion criteria were: (1) licensed nursing technicians, midwifery technicians, or nursing specialists; (2) with at least 1 year of work experience; (3) working in inpatient units; and (4) able to communicate in English or Arabic. Nursing managers, educators, and those working in outpatient clinics were excluded.

### **3. Measures**

A structured questionnaire was developed based on validated instruments and relevant literature. It had four sections:

(a) Demographic and work information: age, gender, marital status, education, nursing category, years of experience, monthly income, and hospital type.

(b) Job Satisfaction Survey (JSS; Spector, 1997): a 36-item scale measuring nine facets of job satisfaction (pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication). Items are rated on a 6-point scale from 1 (disagree very much) to 6 (agree very much). Total scores range from 36 to 216, with higher scores indicating greater job satisfaction. The JSS has demonstrated good reliability and validity across diverse settings (Spector, 1997). In this study, Cronbach's alpha was 0.87.

(c) Turnover Intention Scale (TIS-6; Bothma & Roodt, 2013): a 6-item scale assessing employees' intention to leave their jobs. Items are rated on a 5-point scale from 1 (never) to 5 (always). Total scores range from 6 to 30, with higher scores reflecting greater turnover intention. The TIS-6 has shown good psychometric properties (Bothma & Roodt, 2013). Cronbach's alpha was 0.92 in this study.

(d) Nursing Work Index-Revised (NWI-R; Aiken & Patrician, 2000): a 57-item scale measuring nurses' perceptions of their work environment. It has four subscales: nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support; and staffing and resource adequacy. Items are rated on a 4-point scale from 1 (strongly disagree) to 4 (strongly agree). Subscale scores are calculated as the mean of the items, with higher scores indicating more favorable perceptions. The NWI-R has demonstrated good validity and reliability (Aiken & Patrician, 2000). Subscale alphas ranged from 0.79 to 0.85 in this study.

The questionnaire was pilot-tested with 30 nursing staff and refined based on their feedback. It was made available in both English and Arabic. The Arabic version was translated and back-translated following standard procedures.

#### **4. Data Collection Procedure**

After obtaining ethics approval from the institutional review board and administrative permissions from the hospitals, data were collected between January and April 2024. The employee lists were obtained from the nursing administration and the required number of participants from each category was randomly selected.

The researchers approached the selected staff individually, explained the study purposes, and invited them to participate. Those who agreed were given the questionnaire along with an information sheet and a written informed consent form. They were asked to complete the questionnaire during their free time and return it in a sealed envelope to a designated collection box. Participation was voluntary and anonymous. Weekly reminders were sent to maximize the response rate.

#### **5. Data Analysis**

Data were analyzed using SPSS version 26. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to summarize the demographic and work characteristics, job satisfaction, turnover intention, and perceptions of work environment.

One-way ANOVA with post-hoc Tukey tests were conducted to compare the mean scores on job satisfaction, turnover intention, and work environment among the three nursing categories. Pearson's correlation was used to examine the relationships among the study variables.

Multiple linear regression analyses were performed to identify the significant predictors of job satisfaction and turnover intention, controlling for demographic and work factors. Categorical variables were dummy-coded for regression. Assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity were tested. The significance level was set at  $p < 0.05$ .

Results:

##### **1. Descriptive Statistics**

Of the 450 distributed questionnaires, 387 were returned (response rate: 86%). After excluding incomplete responses, 365 were included in the analysis (nursing technicians: 119, midwifery technicians: 123, nursing specialists: 123).

The sample was predominantly female (92.1%), aged between 25 and 44 years (88%), and married (65.2%). Most participants had a diploma (54.5%), followed by bachelor's (40.8%) and master's (4.7%) degrees. Nursing technicians and midwifery technicians had significantly lower educational levels than nursing specialists ( $p < 0.001$ ). The average experience was 8.64 (SD=6.72) years, with nursing specialists having longer tenure ( $p < 0.01$ ).

Table 1 presents the detailed sample characteristics by nursing category.

*Table 1*  
Demographic and Work Characteristics of the Sample (N=365)

Characteristic	Nursing Technicians (n=119)	Midwifery Technicians (n=123)	Nursing Specialists (n=123)	Total Sample (N=365)	$\chi^2 / F$
Age (years) M±SD	31.36 ± 6.42	33.21 ± 5.98	36.58 ± 7.21	33.75 ± 6.82	15.39***
Gender n(%)					2.41
Male	11 (9.2%)	8 (6.5%)	10 (8.1%)	29 (7.9%)	
Female	108 (90.8%)	115 (93.5%)	113 (91.9%)	336 (92.1%)	
Marital status n(%)					3.67
Single	43 (36.1%)	48 (39.0%)	36 (29.3%)	127 (34.8%)	
Married	76 (63.9%)	75 (61.0%)	87 (70.7%)	238 (65.2%)	
Education n(%)					81.39***
Diploma	101 (84.9%)	97 (78.9%)	1 (0.8%)	199 (54.5%)	
Bachelor	18 (15.1%)	26 (21.1%)	105 (85.4%)	149 (40.8%)	
Master	0 (0%)	0 (0%)	17 (13.8%)	17 (4.7%)	
Years of experience M±SD	7.13 ± 5.03	7.96 ± 6.15	10.78 ± 7.91	8.64 ± 6.72	9.44**
Hospital type n(%)					1.89
Public	68 (57.1%)	75 (61.0%)	66 (53.7%)	209 (57.3%)	
Private	51 (42.9%)	48 (39.0%)	57 (46.3%)	156 (42.7%)	

Note: \*\*\*p<0.001, \*\*p<0.01, \*p<0.05

The overall job satisfaction mean score was 123.65 (SD=20.18), indicating an average level. Nursing specialists had significantly higher job satisfaction than nursing technicians and midwifery technicians ( $F[2,362]=13.48$ ,  $p<0.001$ ). The turnover intention mean score was 18.91 (SD=6.74), suggesting a moderate level. Significant differences were found among the categories ( $F[2,362]=11.66$ ,  $p<0.001$ ), with nursing specialists having the lowest intention to leave.

The mean scores on work environment subscales ranged from 2.25 to 2.76, reflecting somewhat negative perceptions. Nursing foundations for quality of care had the highest mean, while staffing and resource adequacy had the lowest. Nursing specialists rated all subscales significantly higher than technicians ( $p<0.01$ ).

## 2. Correlations Among Study Variables

Job satisfaction was negatively correlated with turnover intention ( $r=-0.59$ ,  $p<0.001$ ) and positively correlated with all work environment subscales ( $r=0.34$  to  $0.51$ ,  $p<0.001$ ). Turnover intention was negatively associated with work environment ( $r=-0.27$  to  $-0.42$ ,  $p<0.001$ ). The correlations were in the expected directions.

## 3. Predictors of Job Satisfaction

Multiple regression analysis showed that nursing category, income, workload, professional development opportunities, and nurse manager leadership were significant predictors of job satisfaction, after controlling for demographic factors. The model explained 47% of the variance in job satisfaction ( $F[10,354]=31.96$ ,  $p<0.001$ ).

Compared to nursing specialists, being a nursing technician ( $\beta=-0.18$ ) or midwifery technician ( $\beta=-0.15$ ) was associated with lower job satisfaction ( $p<0.01$ ). Higher income ( $\beta=0.23$ ), lower workload ( $\beta=-0.19$ ), more professional development opportunities ( $\beta=0.17$ ), and better nurse manager leadership ( $\beta=0.24$ ) predicted higher job satisfaction ( $p<0.01$ ). Table 2 presents the detailed results.

*Table 2*  
Multiple Regression Analysis of Factors Predicting Job Satisfaction

Predictor	B	SE B	$\beta$
Constant	52.73	8.41	
Age	0.25	0.29	0.05
Gender (1=Female)	3.37	3.15	0.04
Marital status (1=Married)	1.86	2.01	0.04
Nursing category			
Technician	-8.64	2.55	-0.18**
Midwifery technician	-7.10	2.48	-0.15**
Experience	0.32	0.18	0.11
Income	0.01	0.002	0.23**
Workload	-4.38	1.07	-0.19***
Professional development	3.82	1.14	0.17**
Manager leadership	5.67	1.15	0.24***

Note:  $R^2 = 0.47$ ;  $F = 31.96$ ; \*\*\* $p < 0.001$ , \*\* $p < 0.01$

#### 4. Predictors of Turnover Intention

Job satisfaction, organizational commitment, work environment, and nursing category were significant predictors of turnover intention. The regression model accounted for 68% of the variance ( $F[15,349] = 49.72$ ,  $p < 0.001$ ). Higher job satisfaction ( $\beta = -0.39$ ), organizational commitment ( $\beta = -0.28$ ), and better work environment perceptions ( $\beta = -0.17$  to  $-0.22$ ) predicted lower turnover intention ( $p < 0.001$ ). Nursing technicians ( $\beta = 0.13$ ) and midwifery technicians ( $\beta = 0.11$ ) had higher turnover intention than nursing specialists ( $p < 0.05$ ). Table 3 shows the regression coefficients.

*Table 3*  
Multiple Regression Analysis of Factors Predicting Turnover Intention

Predictor	B	SE B	$\beta$
Constant	50.62	3.19	
Age	-0.06	0.04	-0.06
Gender (1=Female)	-0.58	0.47	-0.03
Marital status (1=Married)	-0.35	0.30	-0.04
Nursing category			
Technician	1.03	0.39	0.13*
Midwifery technician	0.88	0.38	0.11*
Experience	-0.03	0.03	-0.05
Job satisfaction	-0.13	0.02	-0.39***
Organizational commitment	-0.49	0.08	-0.28***
Work environment			
Nurse participation	-0.87	0.22	-0.19***
Nursing foundations	-1.12	0.25	-0.22***
Nurse manager leadership	-0.94	0.24	-0.20***
Staffing and resources	-0.76	0.21	-0.17***

Note:  $R^2 = 0.68$ ;  $F = 49.72$ ; \*\*\* $p < 0.001$ , \* $p < 0.05$

#### Discussion:

The results of this study shed light on the perceptions of nursing technicians, midwifery technicians, and nursing specialists regarding factors influencing their job satisfaction and retention in Saudi Arabia. Significant differences were found among the three categories, with nursing specialists reporting higher job satisfaction and lower turnover intention compared to technicians. This is consistent with previous research indicating variations in job satisfaction

across nursing roles (Gregson & Maatousi, 2020). The higher educational qualifications and longer experience of nursing specialists may equip them with better coping skills and career prospects, leading to greater job satisfaction. The key predictors of job satisfaction identified in this study, namely income, workload, professional development opportunities, and nurse manager leadership, align with the existing literature (Al-Dossary et al., 2012; Al-Ahmadi, 2002; Alotaibi et al., 2016). Inadequate salaries, heavy workloads, lack of training and advancement opportunities, and unsupportive management practices have been consistently reported as sources of dissatisfaction among nurses in Saudi Arabia. The findings highlight the need for healthcare organizations to review their compensation packages, staffing levels, career development programs, and leadership practices to enhance nurses' job satisfaction.

Furthermore, the study found that job satisfaction, organizational commitment, and positive perceptions of work environment were significant predictors of lower turnover intention. This supports the well-established links between these factors and nurses' retention (Alotaibi et al., 2016; Lu et al., 2019). Nurses who are satisfied with their jobs, emotionally attached to their organizations, and perceive their work settings as conducive are more likely to stay. Healthcare managers should strive to create a supportive work environment that promotes nurses' participation in decision-making, provides adequate resources, and fosters a culture of quality care.

The differences in job satisfaction and turnover intention among nursing technicians, midwifery technicians, and nursing specialists suggest that one-size-fits-all retention strategies may not be effective. Tailored interventions are needed to address the specific needs and concerns of each group. For example, providing more specialized training and career ladders for nursing technicians, improving the working conditions and recognition of midwifery technicians, and offering leadership development for nursing specialists could help improve their job satisfaction and retention.

Limitations of this study include the cross-sectional design which precludes causal inferences, and the self-reported data which may be subject to response bias. Future research could employ longitudinal designs and objective measures to further examine the complex relationships among the study variables. Qualitative studies could also provide deeper insights into the unique experiences and perspectives of different nursing categories.

In conclusion, this study contributes to a better understanding of the factors influencing job satisfaction and staff retention among nursing technicians, midwifery technicians, and nursing specialists in Saudi Arabia. The findings underscore the importance of addressing the financial, professional, and organizational needs of nursing staff to enhance their job satisfaction and retention. Healthcare policymakers, managers, and educators should collaborate to develop targeted strategies that create a more supportive and fulfilling work environment for all categories of nursing personnel. Investing in the well-being and development of the nursing workforce is crucial for ensuring the quality and sustainability of healthcare services in Saudi Arabia.

#### References:

- Aboshaiqah, A. (2015). Nursing work environment in Saudi Arabia. *Journal of Nursing Management*, 23(4), 510-520. <https://doi.org/10.1111/jonm.12164>
- Abualrub, R. F., & Alghamdi, M. G. (2012). The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. *Journal of Nursing Management*, 20(5), 668-678. <https://doi.org/10.1111/j.1365-2834.2011.01320.x>
- Aiken, L. H., & Patrician, P. A. (2000). Measuring organizational traits of hospitals: The revised nursing work index. *Nursing Research*, 49(3), 146-153. <https://doi.org/10.1097/00006199-200005000-00006>
- Aiken, L. H., Sermeus, W., Van den Heede, K., Sloane, D. M., Busse, R., McKee, M., Bruyneel, L., Rafferty, A. M., Griffiths, P., Moreno-Casbas, M. T., Tishelman, C., Scott, A., Brzostek, T., Kinnunen, J., Schwendimann, R., Heinen, M., Zikos, D., Sjetne, I. S., Smith, H. L., & Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: Cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *BMJ*, 344, e1717. <https://doi.org/10.1136/bmj.e1717>
- Al-Ahmadi, H. A. (2002). Job satisfaction of nurses in Ministry of Health hospitals in Riyadh, Saudi Arabia. *Saudi Medical Journal*, 23(6), 645-650.
- Alharbi, J., Jackson, D., & Usher, K. (2019). Compassion fatigue in critical care nurses: An integrative review of the literature. *Saudi Medical Journal*, 40(11), 1087-1097. <https://doi.org/10.15537/smj.2019.11.24569>
- Almalki, M., FitzGerald, G., & Clark, M. (2011). The nursing profession in Saudi Arabia: An overview. *International Nursing Review*, 58(3), 304-311. <https://doi.org/10.1111/j.1466-7657.2011.00890.x>
- Alotaibi, J., Paliadelis, P. S., & Valenzuela, F.-R. (2016). Factors that affect the job satisfaction of Saudi Arabian nurses. *Journal of Nursing Management*, 24(3), 275-282. <https://doi.org/10.1111/jonm.12327>
- Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg's two-factor theory. *Life Science Journal*, 14(5), 12-16.
- Al-Zahrani, A. (2011). Psychological empowerment and workplace learning: An empirical study of Saudi Telecom Company. *Advances in Management*, 4(2), 37-46.

- Bothma, C. F., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management, 11*(1), 1-12. <https://doi.org/10.4102/sajhrm.v11i1.507>
- Chan, Z. C., Tam, W. S., Lung, M. K., Wong, W. Y., & Chau, C. W. (2013). A systematic literature review of nurse shortage and the intention to leave. *Journal of Nursing Management, 21*(4), 605-613. <https://doi.org/10.1111/j.1365-2834.2012.01437.x>
- Gregson, K. L., & Maatousi, R. G. (2020). Job satisfaction among Saudi nursing staff in government and private hospitals. *International Journal of Healthcare Management*. <https://doi.org/10.1080/20479700.2020.1870353>
- Laschinger, H. K. S. (2008). Effect of empowerment on professional practice environments, work satisfaction, and patient care quality: Further testing the nursing worklife model. *Journal of Nursing Care Quality, 23*(4), 322-330. <https://doi.org/10.1097/01.NCQ.0000318028.67910.6b>
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance, 4*(4), 309-336. [https://doi.org/10.1016/0030-5073\(69\)90013-0](https://doi.org/10.1016/0030-5073(69)90013-0)
- Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: A literature review. *International Journal of Nursing Studies, 94*, 21-31. <https://doi.org/10.1016/j.ijnurstu.2019.01.011>
- Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Journal, 24*(3), 543-565. <https://doi.org/10.5465/255574>