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WORK ENVIRONMENT, JOB FULFILLMENT, AND STAFF STABILITY AMONG NURSES IN RIYADH HOSPITALS: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Staff stability among nurses is essential for maintaining continuity of care, reducing turnover-related costs, and improving the quality and sustainability of healthcare services. In hospital settings, nurses' stability may be influenced by organizational conditions and the extent to which nurses feel fulfilled in their professional roles.

Aim: This study aimed to examine the effects of work environment and job fulfillment on staff stability among nurses working in Riyadh hospitals, Saudi Arabia.

Methods: A quantitative cross-sectional study was conducted among 384 nurses working in hospitals in Riyadh City. Data were collected using a structured self-administered questionnaire that measured demographic and professional characteristics, work environment, job fulfillment, and staff stability. The questionnaire items were rated on a five-point Likert scale. Data were analyzed using descriptive statistics, reliability and validity testing, exploratory factor analysis, and Partial Least Squares Structural Equation Modeling through SmartPLS. Direct path analysis was used to assess the effects of work environment and job fulfillment on staff stability.

Results: The findings showed moderate levels of work environment, job fulfillment, and staff stability among nurses. Staff stability recorded the highest mean score ($M = 3.35$, $SD = 0.94$), followed by job fulfillment ($M = 3.29$, $SD = 0.75$) and work environment ($M = 3.26$, $SD = 0.80$). The measurement model demonstrated strong internal consistency, with Cronbach's alpha values of 0.94 for work environment, 0.92 for job fulfillment, and 0.95 for staff stability. The structural model explained 54.0% of the variance in staff stability. Work environment had a positive and statistically significant effect on staff stability ($\beta = 0.405$, $t = 9.08$, $p < 0.001$). Job fulfillment also had a positive and statistically significant effect on staff stability ($\beta = 0.281$, $t = 6.63$, $p < 0.001$).

Conclusion: Work environment and job fulfillment were significant predictors of staff stability among nurses in Riyadh hospitals. Improving workplace conditions, strengthening administrative support, enhancing professional development opportunities, and promoting nurses' fulfillment may contribute to better workforce stability and healthcare service sustainability.

Keywords: Work environment; Job fulfillment; Staff stability; Nurses; Riyadh hospitals; Saudi Arabia.

1 INTRODUCTION

Staff stability among nurses is a critical concern for healthcare systems because stable nursing workforces support continuity of care, reduce turnover-related costs, and contribute to improved healthcare service quality (Alsadaan et al., 2021). Nurse turnover has become a persistent challenge in Saudi hospitals, where resignations may disrupt patient care, increase operational costs, and place additional workload on remaining nurses (Alsadaan et al., 2021). The problem is particularly important in Riyadh hospitals because the city represents a major healthcare hub in Saudi Arabia and depends on a competent and stable nursing workforce to meet growing service demands (Mariano et al., 2022). In this context, understanding the organizational and job-related factors that influence nurses' intention to remain in their positions is essential for strengthening workforce planning and healthcare quality (Alharbi et al., 2019).

The work environment is one of the most important organizational factors affecting nurses' stability, satisfaction, and performance in healthcare settings (Gurková et al., 2021). A supportive work environment includes adequate resources, effective management, reasonable workload, occupational safety, and positive professional relationships among healthcare workers (Naji et al., 2022). In contrast, poor workplace conditions, limited resources, high workload, and weak administrative support may increase stress and burnout among nurses, which can contribute to turnover intention and workforce instability (Aceia-López et al., 2020). Evidence from Saudi healthcare settings indicates that leadership style, workload, professional development opportunities, technological support, and work-life conditions may influence nurses' intention to resign or remain in their organizations (Alqahtani et al., 2024).

Job fulfillment is another important factor that may influence staff stability because nurses who perceive their work as meaningful and professionally rewarding are more likely to remain committed to their roles (Al-Hamdan et al., 2020). Job fulfillment reflects nurses' positive emotional and professional evaluation of their work, including recognition, autonomy, professional development, achievement, and support from colleagues and supervisors (BasuMallick, 2021). Higher job fulfillment has been associated with stronger organizational commitment, better performance, and lower intention to leave among healthcare workers (Alananzeh et al., 2023). Conversely, low fulfillment may weaken nurses' attachment to their workplace and increase their likelihood of seeking employment elsewhere (Salahat & Al-Hamdan, 2022).

In Saudi Arabia, nurse retention is shaped by several interconnected factors, including workplace conditions, job fulfillment, workload, management support, compensation, professional development, and interpersonal relationships (Alharbi et al., 2019). Previous studies have reported that managerial support and social support from immediate supervisors can reduce turnover intention among nurses in Saudi healthcare organizations (Alshareef et al., 2020). Interdisciplinary collaboration and effective communication are also important because weak cooperation among healthcare professionals may contribute to dissatisfaction and instability among nursing staff (Alsufyani et al., 2021). These findings suggest that improving staff stability requires attention not only to individual nurse characteristics but also to the broader organizational environment in which nursing care is delivered (Flaubert et al., 2021).

Despite growing attention to nurse retention in Saudi Arabia, limited evidence has specifically examined how work environment and job fulfillment contribute to staff stability among nurses working in Riyadh hospitals (Alsadaan et al., 2021). This gap is important because Riyadh hospitals operate within a rapidly developing healthcare system that requires sustainable strategies for retaining skilled nurses and maintaining high-quality patient care (Mariano et al., 2022). Examining the direct effects of work environment and job fulfillment on staff stability can provide hospital administrators and policymakers with evidence-based priorities for workforce retention interventions (Alqahtani et al., 2024). Therefore, this study aimed to assess the impact of work environment and job fulfillment on staff stability among nurses working in Riyadh hospitals, Saudi Arabia (Alsadaan et al., 2021).

2 METHODOLOGY

2.1 Study Design

This study used a quantitative analytical cross-sectional design to examine the relationship between work environment, job fulfillment, and staff stability among nurses working in hospitals in Riyadh City, Saudi Arabia. A cross-sectional design was considered appropriate because the study aimed to collect data from nurses at one point in time and assess the associations among organizational and job-related variables. The study followed a deductive quantitative approach, in which the research hypotheses were developed from existing literature and then tested empirically using survey data and statistical modeling. The deductive approach is commonly used in quantitative research because it allows researchers to move from theory and hypotheses to measurement, data collection, and statistical testing (Pandey, 2019; Okoli, 2023).

2.2 Study Setting

The study was conducted in hospitals located in Riyadh City, Saudi Arabia. Riyadh was selected because it is one of the largest healthcare centers in the country and includes a wide range of public and private hospitals that employ nurses across different departments and specialties. The hospital setting was appropriate for this study because nurses working in hospitals are exposed to demanding work conditions, shift duties, workload pressures, and organizational factors that may influence their job fulfillment and stability. The study included nurses from different hospital departments, including emergency departments, intensive care units, pediatric units, surgical departments, inpatient departments, and other clinical areas.

2.3 Study Population

The target population consisted of Saudi nurses working in hospitals in Riyadh City. According to the thesis data, the nursing workforce statistics in Riyadh included 11,777 Saudi nurses, consisting of 4,614 male nurses and 7,163 female nurses. The study focused on Saudi nurses because the aim was to examine staff stability within the local nursing workforce in Riyadh hospitals. Nurses were considered an appropriate population for this study because they represent a major professional group in healthcare delivery and because their stability is essential for continuity of care, patient safety, and hospital performance.

2.4 Eligibility Criteria

2.4.1 Inclusion Criteria

The study included nurses who met the following criteria. First, participants had to be registered and licensed nurses actively employed in healthcare facilities in Riyadh City. Second, nurses had to have at least six months of work experience in their current role to ensure that they had sufficient exposure to the work environment and organizational conditions being assessed. Third, both full-time and part-time nurses were eligible for inclusion to provide a broader understanding of the nursing workforce and its experiences.

2.4.2 Exclusion Criteria

Nurses working exclusively in administrative roles were excluded because their job demands, work environment, and turnover considerations differ from nurses involved in patient-care-related duties. Temporary or contract nurses were also excluded because the study aimed to assess staff stability among nurses with stable employment status. These criteria were applied to maintain the focus of the study on nurses whose workplace experiences were directly related to clinical hospital practice and long-term staff stability.

2.5 Sample Size Determination

The sample size was determined using two approaches: the Krejcie and Morgan sample-size table and Stephen Thompson's sample-size formula. Based on a known population of approximately 10,000 or more nurses, the Krejcie and Morgan table indicated that a minimum sample of 384 participants would be sufficient for statistical analysis (Bukhari, 2021; Krejcie & Morgan, 1970). The Stephen Thompson formula was also used with a 95% confidence level, 80% statistical power, an assumed population proportion of 0.50, and a 5% margin of error (Lawson & Fischer, 2011). Based on these calculations, the final required sample size was 384 nurses.

2.6 Sampling Technique

The thesis described the use of purposive sampling to target nurses who met the inclusion criteria, with stratified representation across hospitals and departments. It also indicated that stratified random sampling was used to ensure proportional representation according to gender distribution in the Saudi nursing workforce in Riyadh. Based on the population distribution, male Saudi nurses represented 39.17% of the target population and female Saudi nurses represented 60.83%. Therefore, the intended proportional sample consisted of 150 male nurses and 234 female nurses, giving a total sample of 384 participants. This approach was used to improve the representativeness of the sample and ensure that nurses from different backgrounds, departments, and professional experiences were included.

2.7 Study Variables

The main independent variables in this manuscript were work environment and job fulfillment. Work environment referred to the organizational, physical, psychological, and social conditions in which nurses perform their duties, including administrative support, availability of resources, workplace safety, professional relationships, and general hospital conditions. Job fulfillment referred to nurses' positive evaluation of their work, including satisfaction with work tasks, sense of achievement, recognition, professional development, salary, benefits, and career advancement opportunities. The dependent variable was staff stability, which referred to nurses' perceived intention to remain in their current job and their sense of professional stability within the hospital.

2.8 Research Instrument

Data were collected using a structured self-administered questionnaire. The questionnaire was developed based on previous literature and consisted of two main sections. The first section collected demographic and professional information, while the second section measured the main study variables. Although the full thesis questionnaire included four domains, the present manuscript focuses on three domains: work environment, job fulfillment, and staff stability.

The demographic section included six items: age, marital status, years of experience, educational level, type of hospital, and department. Age was categorized into five groups: under 20 years, 21–30 years, 31–40 years, 41–50 years, and 51 years or above. Educational level was categorized as diploma, bachelor's degree, master's degree, or doctorate. Years of experience were categorized as less than one year, 1–5 years, 6–10 years, 11–15 years, and more than 15 years. Marital status was categorized as single, married, divorced, or widowed. Department was categorized as emergency, pediatrics, intensive care, surgery, or other departments.

The work environment scale consisted of nine items designed to measure nurses' perceptions of their hospital work conditions. The scale covered organizational, material, and psychological aspects of the workplace, including support, resources, safety, communication, and professional environment. The work environment items were developed with reference to previous studies that examined the role of workplace conditions in employee performance and stability, including Al-Thubaiti et al. (2023) and Brokmeier et al. (2022).

The job fulfillment scale consisted of eight items measuring different aspects of nurses' satisfaction and fulfillment with their work. These items assessed satisfaction with the nature of work, enjoyment of job tasks, opportunities for professional growth, career advancement, salary fairness, benefits, appreciation from supervisors and colleagues, and sense of accomplishment. The scale was developed based on studies addressing job satisfaction and fulfillment among employees and nurses, including Hussein (2023) and Al-Omar and Al-Shibli (2024).

The staff stability scale consisted of nine items assessing nurses' perceived job stability and intention to remain in their current workplace. The items measured feelings of job stability, intention not to change workplace, administrative and collegial support, the effect of professional development opportunities, workplace policies, recognition, workplace safety, and the relationship between personal life and job stability. The staff stability scale was developed based on previous studies addressing employee stability and retention in healthcare and organizational settings, including Al-Mutairi and Al-Hazmi (2023) and Alananzeh et al. (2023).

All items in the main scales were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicated more positive perceptions of the relevant construct. For each construct, total or mean scores were calculated by averaging the item responses.

2.9 Validity of the Instrument

The questionnaire was developed based on established literature and expert input to ensure content validity. The work environment, job fulfillment, and staff stability domains were designed to reflect the theoretical and empirical dimensions of each construct. Content validity was addressed by ensuring that the questionnaire items covered the main aspects of each variable and were aligned with the objectives of the study.

Construct validity was assessed statistically through exploratory factor analysis and measurement-model assessment. Factor analysis was used to examine whether the items loaded appropriately on their intended constructs. Convergent validity was assessed using factor loadings and average variance extracted values. Composite reliability and Cronbach's alpha were used to evaluate internal consistency. Discriminant validity was assessed using latent-variable correlations, cross-loadings, and the Fornell-Larcker criterion.

2.10 Reliability of the Instrument

Reliability was assessed using Cronbach's alpha coefficients. In the pilot reliability testing reported in the thesis, the work environment scale showed strong reliability with Cronbach's alpha of 0.910, the job fulfillment scale showed acceptable reliability with Cronbach's alpha of 0.819, and the staff stability scale showed strong reliability with Cronbach's alpha of 0.912. The overall questionnaire demonstrated acceptable internal consistency, with Cronbach's alpha of 0.862. These values indicated that the questionnaire was reliable for measuring the study constructs.

2.11 Pilot Testing

A pilot test was conducted before the main data collection to evaluate the clarity, reliability, and suitability of the questionnaire. The pilot test helped determine whether the items were understandable to nurses and whether the instrument could consistently measure the intended constructs. Feedback from the pilot stage was used to confirm the

appropriateness of the questionnaire structure and the clarity of item wording before distributing the final questionnaire to the main study sample.

2.12 Data Collection Procedure

Data were collected from 384 nurses working in Riyadh hospitals during 2025. Nurses who met the inclusion criteria were invited to participate voluntarily. The questionnaire was distributed to eligible participants, and nurses completed it based on their personal experiences and perceptions of their work environment, job fulfillment, and staff stability. The self-administered questionnaire format was used because it allowed participants to respond independently and confidentially. The data collection process aimed to obtain responses from nurses working in different hospitals and departments to capture a broad range of workplace experiences.

2.13 Data Management

After data collection, the completed questionnaires were reviewed for completeness and accuracy. Data were coded and entered into statistical software for analysis. Demographic variables were assigned numerical codes, and Likert-scale responses were coded from 1 to 5. The dataset was screened for missing data, invalid responses, inconsistencies, and outliers. Data cleaning was performed before statistical analysis to improve the accuracy and reliability of the findings.

2.14 Statistical Analysis

Data were analyzed using descriptive and inferential statistical methods. Descriptive statistics were used to summarize participants' demographic characteristics and the main study variables. Frequencies and percentages were calculated for categorical variables, while means and standard deviations were calculated for continuous and Likert-scale variables. These analyses provided an overview of the sample profile and the general levels of perceived work environment, job fulfillment, and staff stability.

Preliminary analyses were conducted to assess the suitability of the data for further statistical testing. Normality was examined using the Kolmogorov–Smirnov test, and data distribution was also reviewed using descriptive and graphical methods. Collinearity was assessed using variance inflation factor values to ensure that the independent variables did not show problematic multicollinearity. Correlation analysis was conducted to examine the relationships among study variables.

Exploratory factor analysis was performed to assess the underlying factor structure of the work environment, job fulfillment, and staff stability scales. Reliability analysis was conducted using Cronbach's alpha. Measurement-model assessment was performed to examine construct reliability and validity using factor loadings, composite reliability, average variance extracted, discriminant validity, and cross-loading analysis.

Partial Least Squares Structural Equation Modeling was conducted using SmartPLS to test the direct effects of work environment and job fulfillment on staff stability. The structural model assessed the strength and significance of the hypothesized paths from work environment to staff stability and from job fulfillment to staff stability. Path coefficients, t-values, and p-values were used to evaluate statistical significance. The coefficient of determination was used to assess the proportion of variance in staff stability explained by the independent variables. Effect size values were also examined to evaluate the relative contribution of each predictor. Statistical significance was determined at $p < 0.05$.

2.15 Ethical Considerations

The study followed ethical principles for research involving human participants. Participation was voluntary, and nurses were informed about the purpose of the study before completing the questionnaire. Informed consent was obtained from participants, and they were assured that their responses would be treated confidentially. No identifying personal information was reported in the analysis or presentation of findings. Participants had the right to decline participation or withdraw without penalty. Ethical approval should be reported in the manuscript using the official approval number and approving committee name once available from the thesis or institutional documentation.

2.16 Methodological Limitations

Several methodological limitations should be acknowledged. First, the cross-sectional design limits causal interpretation because the exposure and outcome variables were measured at the same point in time. Second, the use of a self-administered questionnaire may introduce response bias or social desirability bias. Third, the study was conducted in Riyadh hospitals only, which may limit the generalizability of the findings to nurses working in other regions of Saudi Arabia. Fourth, the study focused on nurses' perceptions rather than objective institutional turnover records. Despite these limitations, the sample size, structured instrument, reliability testing, and use of statistical modeling provide a sound methodological basis for examining the relationships among work environment, job fulfillment, and staff stability.

3 RESULTS

3.1 Data Screening and Preparation

A total of 384 completed questionnaires were included in the final analysis. Before conducting the statistical analysis, the dataset was screened for completeness, coding accuracy, missing responses, invalid entries, and unusual response patterns. All questionnaire responses were coded according to the five-point Likert scale, where higher scores indicated stronger agreement with the measured construct. The final dataset was considered suitable for descriptive analysis, reliability testing, validity assessment, and structural model analysis.

3.2 Demographic and Professional Characteristics of Participants

The study included 384 nurses working in hospitals in Riyadh, Saudi Arabia. Regarding years of experience, the largest group had 1–5 years of experience ($n = 132$, 34.38%), followed by 6–10 years ($n = 118$, 30.73%), 11–15 years ($n = 78$, 20.31%), more than 15 years ($n = 44$, 11.46%), and less than one year of experience ($n = 12$, 3.12%). In terms of educational level, most participants held a bachelor's degree ($n = 280$, 72.92%), followed by diploma holders ($n = 50$, 13.02%), master's degree holders ($n = 48$, 12.50%), and doctorate holders ($n = 6$, 1.56%). These findings indicate that the sample was mainly composed of nurses with bachelor-level education and moderate professional experience.

Table 1: Professional and Educational Characteristics of Participants

Variable	Category	n	%
Years of experience	Less than 1 year	12	3.12
	1–5 years	132	34.38
	6–10 years	118	30.73
	11–15 years	78	20.31
	More than 15 years	44	11.46
Educational level	Diploma	50	13.02
	Bachelor's degree	280	72.92
	Master's degree	48	12.50
	Doctorate	6	1.56

3.3 Descriptive Statistics of the Main Study Variables

The descriptive analysis showed that all three main study variables were rated at a moderate level. Staff stability recorded the highest mean score ($M = 3.35$, $SD = 0.94$), indicating a moderately positive level of perceived job stability among the nurses. Job fulfillment had a mean score of 3.29 ($SD = 0.75$), reflecting a moderate level of fulfillment with work-related factors. Work environment had a mean score of 3.26 ($SD = 0.80$), suggesting that nurses generally perceived their workplace conditions as moderate.

Table 2: Summary of Descriptive Statistics for the Study Variables

Variable	Number of items	Mean	SD	Interpretation
Work environment	9	3.26	0.80	Moderate
Job fulfillment	8	3.29	0.75	Moderate
Staff stability	9	3.35	0.94	Moderate

3.4 Descriptive Statistics of Work Environment

The work environment scale consisted of nine items. The item means ranged from 3.21 to 3.32, indicating a moderate level of agreement regarding the quality of the work environment. The highest mean was reported for the item "The division of tasks within the department is clear and well-defined" ($M = 3.32$, $SD = 0.96$), followed by staffing adequacy ($M = 3.29$, $SD = 1.00$). The lowest mean was observed for the item related to the sufficiency of resources available at

work ($M = 3.21$, $SD = 0.97$). These findings suggest that nurses perceived role clarity and staffing as relatively stronger aspects of the work environment, while resource availability appeared to be a less favorable area.

Table 3: Descriptive Statistics of Selected Work Environment Items

Work environment item	Mean	SD
The division of tasks within the department is clear and well-defined.	3.32	0.96
I find the staffing levels adequate to perform daily tasks.	3.29	1.00
The resources available to me at work are sufficient to support my performance.	3.21	0.97
I feel that my nursing skills are effectively utilized in the workplace.	3.24	1.02
I have continuous opportunities for training and professional development.	3.26	0.97

3.5 Descriptive Statistics of Job Fulfillment

The job fulfillment scale included eight items. The item means ranged from 3.27 to 3.32, reflecting a moderate level of job fulfillment among respondents. The highest mean was reported for the item “I enjoy the tasks I perform at work” ($M = 3.32$, $SD = 0.91$). This was followed by salary alignment with effort ($M = 3.30$, $SD = 0.94$), while professional growth and career advancement opportunities both showed moderate ratings. The lowest mean was reported for the item related to a sense of accomplishment from work ($M = 3.27$, $SD = 0.91$). Overall, the results indicate that nurses expressed moderately positive views regarding job fulfillment, with task enjoyment receiving the strongest rating.

Table 4: Descriptive Statistics of Job Fulfillment

Job fulfillment indicator	Mean	SD
Highest-rated item: enjoyment of work tasks	3.32	0.91
Salary alignment with effort	3.30	0.94
Professional growth opportunities	3.29	Not reported
Career advancement opportunities	3.29	Not reported
Lowest-rated item: sense of accomplishment from work	3.27	0.91
Overall job fulfillment score	3.29	0.75

3.6 Descriptive Statistics of Staff Stability

The staff stability scale consisted of nine items. The item means ranged from 3.31 to 3.40, indicating a moderate to relatively favorable level of perceived staff stability. The highest mean was reported for the item “Continuous professional development opportunities enhance my job stability” ($M = 3.40$, $SD = 1.11$), followed by the item “Having a professional and safe work environment enhances my sense of stability in my job” ($M = 3.39$, $SD = 1.10$). The lowest means were reported for the items related to not considering changing the workplace and the positive influence of personal life on job stability, both with mean scores of 3.31. These results suggest that professional development and safe work conditions were perceived as important contributors to staff stability.

Table 5: Descriptive Statistics of Staff Stability Items

Staff stability item	Mean	SD
I feel stable in my current job.	3.35	1.10
I am not considering changing my workplace in the near future.	3.31	1.11
The work environment in the hospital contributes to my job stability.	3.36	1.07
I feel supported at work by the administration and colleagues.	3.33	1.08
Continuous professional development opportunities enhance my job stability.	3.40	1.11
Workplace policies and recognition play an important role in my job stability.	3.35	1.09
Having a professional and safe work environment enhances my sense of stability in my job.	3.39	1.10

I find that my personal life positively impacts my job stability.	3.31	1.11
The relationship between my work and personal life positively affects my job stability.	3.38	1.10

3.7 Reliability and Internal Consistency

The reliability analysis demonstrated excellent internal consistency for the three main study constructs. Cronbach's alpha was 0.94 for work environment, 0.92 for job fulfillment, and 0.95 for staff stability. Composite reliability values were also high, ranging from 0.93 to 0.96. The average variance extracted values exceeded the acceptable threshold of 0.50 for all constructs, indicating adequate convergent validity. These results confirm that the scales used to measure work environment, job fulfillment, and staff stability were reliable and valid for subsequent structural analysis.

Table 6: Construct Reliability and Validity

Construct	Cronbach's alpha	Composite reliability	AVE
Work environment	0.94	0.95	0.67
Job fulfillment	0.92	0.93	0.64
Staff stability	0.95	0.96	0.73

3.8 Discriminant Validity

Discriminant validity was assessed using the Fornell–Larcker criterion. The square root of the AVE for each construct was greater than its correlations with the other constructs. The square root of AVE was 0.82 for work environment, 0.80 for job fulfillment, and 0.86 for staff stability. The correlation between work environment and staff stability was 0.59, while the correlation between job fulfillment and staff stability was 0.50. These results indicate that the three constructs were empirically distinct and suitable for inclusion in the structural model.

Table 7: Fornell–Larcker Criterion for the Main Constructs

Construct	Work environment	Job fulfillment	Staff stability
Work environment	0.82	0.41	0.59
Job fulfillment	0.41	0.80	0.50
Staff stability	0.59	0.50	0.86

3.9 Explained Variance and Effect Size

The structural model explained 54.0% of the variance in staff stability, indicating moderate to substantial explanatory power. The effect size analysis showed that work environment had a small direct effect on staff stability ($f^2 = 0.11$), while job fulfillment also had a small direct effect on staff stability ($f^2 = 0.14$). Although the effect sizes were small, both predictors showed statistically significant direct effects, supporting their relevance in explaining staff stability among nurses.

Table 8: Explained Variance and Effect Size

Outcome variable	R ²	Interpretation	
Staff stability	0.54	Moderate to substantial	
Predictor	Outcome	f ²	Interpretation
Work environment	Staff stability	0.11	Small effect
Job fulfillment	Staff stability	0.14	Small effect

3.10 Direct Effects of Work Environment and Job Fulfillment on Staff Stability

The direct path analysis showed that work environment had a positive and statistically significant effect on staff stability ($\beta = 0.405$, $t = 9.08$, $p < 0.001$). This indicates that nurses who perceived their work environment more positively were more likely to report higher levels of staff stability. Job fulfillment also had a positive and statistically significant effect on staff stability ($\beta = 0.281$, $t = 6.63$, $p < 0.001$), indicating that nurses with higher job fulfillment were more likely to

feel stable in their current workplace. Based on the standardized path coefficients, work environment was the stronger predictor of staff stability compared with job fulfillment.

Table 9: Direct Path Coefficients Predicting Staff Stability

Hypothesis	Path	β	t-value	p-value	Decision
H1	Work environment → Staff stability	0.405	9.08	<0.001	Supported
H2	Job fulfillment → Staff stability	0.281	6.63	<0.001	Supported

3.11 Summary of Results

The findings showed moderate levels of work environment, job fulfillment, and staff stability among nurses working in Riyadh hospitals. The measurement model demonstrated strong reliability and validity, supporting the suitability of the questionnaire for measuring the study constructs. The structural model showed that both work environment and job fulfillment significantly predicted staff stability. Work environment had the stronger direct effect, suggesting that supportive workplace conditions may play a particularly important role in strengthening nurses' stability. Job fulfillment also contributed significantly to staff stability, indicating that nurses who experience greater fulfillment in their work are more likely to remain stable in their jobs. Overall, the results support the conclusion that improving the work environment and enhancing job fulfillment are important strategies for strengthening staff stability among nurses in Riyadh hospitals.

4 DISCUSSION

The present study examined the influence of work environment and job fulfillment on staff stability among nurses working in Riyadh hospitals. The findings showed that nurses reported moderate levels of work environment, job fulfillment, and staff stability, suggesting that although nurses did not report severely poor workplace experiences, there remains considerable room for improvement in organizational support, work conditions, professional fulfillment, and retention-related outcomes. This finding is important in the Saudi healthcare context because nurse retention remains a continuing challenge that may disrupt continuity of care, increase institutional costs, and increase workload among remaining staff (Alsadaan et al., 2021). The moderate level of staff stability also indicates that retention should be treated as an active workforce priority rather than as an assumed outcome of employment. This aligns with the thesis argument that Riyadh hospitals require evidence-based strategies to strengthen nursing workforce stability and support the quality and sustainability of healthcare services.

The study found that work environment had a positive and statistically significant effect on staff stability, indicating that nurses who perceived their workplace more positively were more likely to report stronger stability in their jobs. This result supports the view that workplace conditions are central to nurse retention because the work environment affects nurses' daily experiences, stress levels, performance, and professional commitment. In the thesis, the work environment was conceptualized as a combination of organizational, physical, psychological, and social conditions, including staffing, resources, administrative support, safety, communication, and workplace relationships. This interpretation is consistent with previous studies cited in the thesis, which emphasized that supportive leadership, adequate resources, manageable workload, and positive professional relationships can reduce turnover intention and improve nurses' willingness to remain in their organizations (Alshareef et al., 2020; Gurková et al., 2021; Naji et al., 2022).

The relatively stronger effect of work environment compared with job fulfillment suggests that organizational conditions may be the most immediate and practical area for intervention in Riyadh hospitals. Nurses work in high-demand clinical settings where workload, staffing adequacy, role clarity, access to resources, occupational safety, and supervisory support directly influence their ability to perform patient-care responsibilities. Therefore, improving the work environment may contribute to staff stability by reducing unnecessary work stress, enhancing nurses' confidence in their workplace, and increasing their perception that the organization values and supports them. This finding is consistent with the thesis discussion that hospital administrators should improve day-to-day working conditions, provide adequate support, and create organizational policies that enhance retention and sustainable nursing performance.

Job fulfillment also had a positive and statistically significant effect on staff stability, showing that nurses who experienced greater fulfillment in their work were more likely to report higher stability. This indicates that staff stability is not determined only by external workplace conditions, but also by nurses' internal evaluation of the meaning, value, and satisfaction they derive from their professional roles. Job fulfillment in the thesis included aspects such as enjoyment of work tasks, sense of achievement, professional growth, career advancement, recognition, salary fairness,

and appreciation from supervisors and colleagues. This result agrees with previous literature cited in the thesis, which showed that job satisfaction and fulfillment are associated with organizational commitment, better performance, and lower intention to leave among nurses and healthcare workers (Alananzeh et al., 2023; Salahat & Al-Hamdan, 2022).

The findings also indicate that staff stability among nurses should be understood as a multidimensional outcome shaped by both structural and psychological factors. Work environment reflects the organizational conditions under which nurses work, whereas job fulfillment reflects how nurses evaluate their work experience and professional rewards. The significant effects of both variables suggest that retention strategies should not focus only on staffing numbers or financial incentives, but should also address professional development, recognition, autonomy, supportive supervision, and meaningful engagement in work. This is consistent with the thesis conclusion that staff stability is influenced by structural, administrative, and professional factors, and that improving both workplace quality and job fulfillment is essential for sustaining a stable nursing workforce in Riyadh hospitals.

From a practical perspective, the study provides evidence that hospital administrators and policymakers in Riyadh should prioritize work environment improvement and job fulfillment enhancement as central components of nurse-retention strategies. Interventions may include improving staffing adequacy, strengthening managerial support, ensuring availability of clinical resources, promoting fair recognition systems, expanding professional-development opportunities, and improving communication between nurses and hospital leadership. Such measures may increase nurses' sense of organizational support and professional value, which can strengthen their intention to remain in their current workplace. These implications are aligned with the thesis significance statement, which emphasized that identifying factors affecting nurses' stability can help administrators and policymakers establish targeted interventions and improve the general quality of patient care.

Limitations

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to establish causal relationships between work environment, job fulfillment, and staff stability because all variables were measured at one point in time. Second, data were collected using a self-administered questionnaire, which may introduce response bias, recall bias, or social desirability bias. Third, the study was conducted among nurses working in Riyadh hospitals only, which may limit the generalizability of the findings to nurses in other regions of Saudi Arabia or other healthcare systems. Fourth, staff stability was measured using nurses' perceptions rather than objective institutional data such as actual turnover rates, resignation records, or retention duration. Finally, the thesis also acknowledged that local social, cultural, organizational, and contextual factors specific to Riyadh may influence nurses' perceptions of workplace conditions and stability, which should be considered when applying the results to other settings.

5 CONCLUSION

This study concluded that both work environment and job fulfillment are significant predictors of staff stability among nurses working in Riyadh hospitals. The findings showed that nurses reported moderate levels of work environment, job fulfillment, and staff stability, indicating the need for continued organizational efforts to strengthen retention-related factors. Work environment showed the stronger direct effect on staff stability, suggesting that supportive workplace conditions, adequate resources, clear roles, safe practice environments, and effective administrative support are essential for retaining nurses. Job fulfillment also contributed significantly to staff stability, highlighting the importance of professional recognition, career development, meaningful work, and satisfaction with work-related rewards. Therefore, hospital administrators and policymakers should prioritize improving workplace conditions and enhancing nurses' job fulfillment as practical strategies to promote nursing workforce stability and improve the sustainability of healthcare services in Riyadh hospitals.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

Disclosure of conflict of interest

No Conflict of Interest to be Disclosed.

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