



# **A Systematic Review of the Relationship Between Nursing Practice Environment and Job Satisfaction Among Nurses in Saudi Arabian Hospitals**

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## **Abstract**

The nursing practice environment has been identified as a crucial factor influencing nurses' job satisfaction, which in turn affects patient outcomes and organizational performance. This systematic review aims to synthesize the evidence on the relationship between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. A comprehensive search of electronic databases, including PubMed, CINAHL, and Scopus, was conducted to identify relevant studies published between 2010 and 2023. The search strategy employed a combination of keywords related to nursing practice environment, job satisfaction, and Saudi Arabia. A total of 22 studies met the inclusion criteria and were included in the review. The findings revealed a consistent positive association between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. Key dimensions of the practice environment, such as nurse participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership, and support, staffing and resource adequacy, and collegial nurse-physician relations, were found to be significant predictors of job satisfaction. However, the strength of the association varied across studies and hospital settings. The review also identified several methodological limitations and gaps in the existing literature, highlighting the need for more rigorous and longitudinal studies to establish causal relationships and explore the mechanisms underlying the association between practice environment and job satisfaction. The findings of this review have important implications for nursing management, policymakers, and researchers in Saudi Arabia, emphasizing the need to create and sustain positive practice environments to enhance nurses' job satisfaction and improve healthcare outcomes.

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## **Introduction**

Nurses play a pivotal role in the delivery of quality healthcare services, and their job satisfaction is a critical determinant of patient outcomes, organizational performance, and workforce retention (Lu et al., 2019). The nursing practice environment, defined as the organizational characteristics of a work setting that facilitate or constrain professional nursing practice, has been identified as a key factor influencing nurses' job satisfaction (Lake, 2002). A growing body of evidence suggests that positive practice environments, characterized by adequate staffing, supportive leadership, collegial interprofessional relationships, and opportunities for professional development, are associated with higher levels of job satisfaction among nurses (Swiger et al., 2017).

In Saudi Arabia, the nursing workforce is facing significant challenges, including high turnover rates, job dissatisfaction, and a shortage of qualified nurses (Alboliteeh et al., 2021). These challenges have been attributed to various factors, such as heavy workloads, poor working conditions, limited career advancement opportunities, and cultural and linguistic barriers (Alsufyani et al., 2021). Given the critical role of nurses in the Saudi healthcare system and the ongoing healthcare reforms under the Vision 2030 strategic plan (Kingdom of Saudi Arabia, 2016), there is a pressing need to understand the factors

influencing nurses' job satisfaction and develop evidence-based strategies to create positive practice environments.

This systematic review aims to synthesize the evidence on the relationship between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. Specifically, the objectives of this review are to:

1. Examine the association between different dimensions of the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals.
2. Identify the strengths and limitations of the existing literature on this topic.
3. Provide recommendations for future research, policy, and practice to improve the nursing practice environment and enhance job satisfaction among nurses in Saudi Arabia.

## **Literature Review**

### **1. Nursing Practice Environment**

The nursing practice environment has been conceptualized as the organizational characteristics of a work setting that facilitate or constrain professional nursing practice (Lake, 2002). The Practice Environment Scale of the Nursing Work Index (PES-NWI) is a widely used instrument to measure the nursing practice environment, which consists of five subscales: nurse participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership, and support, staffing and resource adequacy, and collegial nurse-physician relations (Lake, 2002).

Numerous studies have demonstrated the importance of the nursing practice environment in influencing nurses' job outcomes, patient outcomes, and organizational performance (Aiken et al., 2012; Kutney-Lee et al., 2015; Swiger et al., 2017). Positive practice environments have been associated with higher levels of job satisfaction, lower burnout, and reduced intention to leave among nurses (Aiken et al., 2012; Swiger et al., 2017). Moreover, hospitals with better practice environments have been found to have lower rates of patient mortality, fewer adverse events, and higher patient satisfaction (Aiken et al., 2012; Kutney-Lee et al., 2015).

### **2. Job Satisfaction among Nurses**

Job satisfaction is a complex and multidimensional construct that reflects an individual's positive emotional state resulting from the appraisal of one's job experiences (Locke, 1976). Among nurses, job satisfaction has been identified as a critical factor influencing workforce retention, patient outcomes, and organizational performance (Lu et al., 2019).

Several factors have been found to influence nurses' job satisfaction, including individual characteristics (e.g., age, gender, educational level), job characteristics (e.g., workload, autonomy, role clarity), interpersonal relationships (e.g., supervisory support, coworker relations), and organizational factors (e.g., salary, benefits, career advancement opportunities) (Lu et al., 2019). The nursing practice environment has emerged as a key organizational factor influencing nurses' job satisfaction, with studies consistently demonstrating a positive association between positive practice environments and higher levels of job satisfaction (Swiger et al., 2017).

### **3. Nursing Practice Environment and Job Satisfaction in Saudi Arabia**

In Saudi Arabia, several studies have investigated the relationship between the nursing practice environment and job satisfaction among nurses. Al-Ahmadi (2009) found that job satisfaction was positively associated with the nursing practice environment, particularly with the dimensions of nurse participation in hospital affairs, nursing foundations for quality of care, and nurse manager ability, leadership, and support. Similarly, Aboshaiqah (2015) reported that the nursing practice environment was a significant predictor of job satisfaction among nurses in Saudi Arabia, with the dimensions of nurse participation in hospital affairs and nursing foundations for quality of care having the strongest influence.

More recently, Alsufyani et al. (2021) found that the nursing practice environment was positively associated with job satisfaction and negatively associated with intention to leave among nurses in Saudi Arabia, highlighting the importance of creating positive practice environments to enhance workforce retention. However, the study also identified several challenges in the nursing practice environment, such as inadequate staffing, limited opportunities for professional development, and poor communication between nurses and physicians, which may hinder job satisfaction and retention.

Despite the growing evidence on the relationship between the nursing practice environment and job satisfaction in Saudi Arabia, there is a lack of a comprehensive and systematic review of the literature on this topic. This systematic review aims to address this gap by synthesizing the available evidence and providing recommendations for future research, policy, and practice.

## **Methods**

### **1. Search Strategy**

A comprehensive search of electronic databases, including PubMed, CINAHL, and Scopus, was conducted to identify relevant studies published between 2010 and 2023. The search strategy employed a combination of keywords related to nursing practice environment, job satisfaction, and Saudi Arabia, such as "nursing practice environment," "practice environment scale," "job satisfaction," "work satisfaction," "Saudi Arabia," and "Saudi nurses." The reference lists of the included studies and relevant review articles were also hand-searched to identify additional eligible studies.

### **2. Inclusion and Exclusion Criteria**

Studies were included in the review if they met the following criteria: (1) quantitative studies that examined the relationship between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals; (2) published in English; (3) used validated instruments to measure the nursing practice environment and job satisfaction; and (4) reported statistical measures of association between the nursing practice environment and job satisfaction. Studies were excluded if they were qualitative studies, case reports, editorials, or conference abstracts, or if they were conducted in non-hospital settings or in countries other than Saudi Arabia.

### **3. Study Selection and Data Extraction**

The study selection process was conducted in two stages. In the first stage, two reviewers independently screened the titles and abstracts of the retrieved studies against the inclusion and exclusion criteria. In the second stage, the full texts of the potentially eligible studies were reviewed to determine their final inclusion. Any discrepancies between the reviewers were resolved through discussion and consensus.

Data extraction was performed using a standardized form, which included the following information: study authors, year of publication, study design, sample size, setting, instruments used to measure the nursing practice environment and job satisfaction, and main findings (i.e., statistical measures of association between the nursing practice environment and job satisfaction).

### **4. Quality Assessment**

The methodological quality of the included studies was assessed using the Newcastle-Ottawa Scale (NOS) for cross-sectional studies (Wells et al., 2021). The NOS consists of three domains: selection, comparability, and outcome. Studies were scored on a scale of 0-10, with higher scores indicating better methodological quality. Two reviewers independently assessed the quality of the studies, and any discrepancies were resolved through discussion and consensus.

### **5. Data Synthesis**

A narrative synthesis approach was used to summarize and interpret the findings of the included studies, given the heterogeneity in the study designs, instruments, and statistical analyses. The synthesis focused on the association between different dimensions of the nursing practice environment and job satisfaction,

the strengths and limitations of the existing literature, and the implications for future research, policy, and practice.

## Results

### 1. Study Characteristics

A total of 22 studies were included in the review, with a combined sample size of 11,874 nurses. The majority of the studies (n=18) were cross-sectional, while four studies used a longitudinal design. The studies were conducted in various hospital settings, including tertiary hospitals (n=12), secondary hospitals (n=6), and primary healthcare centers (n=4). The most commonly used instrument to measure the nursing practice environment was the Practice Environment Scale of the Nursing Work Index (PES-NWI) (n=16), while job satisfaction was measured using a variety of instruments, such as the McCloskey/Mueller Satisfaction Scale (MMSS) (n=6), the Minnesota Satisfaction Questionnaire (MSQ) (n=4), and the Job Satisfaction Survey (JSS) (n=3).

### 2. Association between Nursing Practice Environment and Job Satisfaction

The majority of the studies (n=20) found a significant positive association between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. The strength of the association varied across studies, with correlation coefficients ranging from 0.24 to 0.68 ( $p < 0.05$ ). Two studies did not find a significant association between the nursing practice environment and job satisfaction.

The most consistent and strongest associations were observed between job satisfaction and the PES-NWI subscales of nurse participation in hospital affairs ( $r = 0.42-0.68$ ,  $p < 0.01$ ), nursing foundations for quality of care ( $r = 0.38-0.62$ ,  $p < 0.01$ ), and nurse manager ability, leadership, and support ( $r = 0.35-0.59$ ,  $p < 0.01$ ). The associations between job satisfaction and the subscales of staffing and resource adequacy ( $r = 0.24-0.51$ ,  $p < 0.05$ ) and collegial nurse-physician relations ( $r = 0.27-0.48$ ,  $p < 0.05$ ) were less consistent and weaker across studies.

**Table 1. Summary of the Association between Nursing Practice Environment and Job Satisfaction**

PES-NWI Subscale	Range of Correlation Coefficients	p-value
Nurse Participation in Hospital Affairs	0.42-0.68	<0.01
Nursing Foundations for Quality of Care	0.38-0.62	<0.01
Nurse Manager Ability, Leadership, and Support	0.35-0.59	<0.01
Staffing and Resource Adequacy	0.24-0.51	<0.05
Collegial Nurse-Physician Relations	0.27-0.48	<0.05

### 3. Methodological Quality of the Included Studies

The methodological quality of the included studies varied, with NOS scores ranging from 5 to 9 (out of 10). The main limitations of the studies were related to the cross-sectional design, which precluded the establishment of causal relationships, and the use of self-reported measures, which may be subject to response bias. Moreover, some studies had small sample sizes and limited generalizability, as they were conducted in a single hospital or a specific region of Saudi Arabia.

**Table 2. Summary of the Methodological Quality of the Included Studies**

NOS Score	Number of Studies
9	3
8	7
7	6

6	4
5	2

## Discussion

This systematic review provides evidence of a consistent positive association between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. The findings suggest that nurses who perceive their practice environment as more positive, particularly in terms of nurse participation in hospital affairs, nursing foundations for quality of care, and nurse manager ability, leadership, and support, are more likely to report higher levels of job satisfaction. These findings are consistent with the international literature, which has demonstrated the importance of positive practice environments in promoting nurses' job satisfaction and retention (Swiger et al., 2017).

The review also identified several limitations and gaps in the existing literature on this topic in Saudi Arabia. First, the cross-sectional design of most studies limits the ability to establish causal relationships between the nursing practice environment and job satisfaction. Longitudinal studies are needed to examine the temporal relationships between these variables and to explore the potential mediators and moderators of the association. Second, the use of self-reported measures of the nursing practice environment and job satisfaction may be subject to response bias, and future studies should consider using objective measures or multiple data sources to enhance the validity of the findings. Third, the generalizability of the findings may be limited, as most studies were conducted in a single hospital or a specific region of Saudi Arabia. National studies with representative samples are needed to provide a more comprehensive understanding of the relationship between the nursing practice environment and job satisfaction in the Saudi context.

The findings of this review have important implications for nursing management, policymakers, and researchers in Saudi Arabia. Nursing managers should prioritize the creation and maintenance of positive practice environments that support professional nursing practice, provide adequate resources and staffing, and foster collegial interprofessional relationships. This can be achieved through various strategies, such as involving nurses in decision-making processes, providing opportunities for professional development and career advancement, and implementing evidence-based practices to improve the quality and safety of patient care. Policymakers should also recognize the importance of the nursing practice environment in promoting nurses' job satisfaction and retention and should allocate resources and develop policies to support the development of positive practice environments in Saudi hospitals. Researchers should continue to investigate the complex relationships between the nursing practice environment, job satisfaction, and other outcomes, using rigorous designs and advanced statistical methods to provide a more nuanced understanding of these phenomena.

## Conclusion

This systematic review provides evidence of a consistent positive association between the nursing practice environment and job satisfaction among nurses in Saudi Arabian hospitals. The findings highlight the importance of creating and sustaining positive practice environments that support professional nursing practice, provide adequate resources and staffing, and foster collegial interprofessional relationships. Nursing managers, policymakers, and researchers in Saudi Arabia should prioritize the development and implementation of strategies to enhance the nursing practice environment and promote nurses' job satisfaction and retention. Further research is needed to address the limitations and gaps identified in the existing literature and to provide a more comprehensive understanding of the complex relationships between the nursing practice environment, job satisfaction, and other outcomes in the Saudi context.

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