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## **Effect of work environment on nurses' job performance: Systematic review**

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**Abstract**--Background: Saudi Arabia is developing very fast in all disciplines, especially in nursing and health. Work environments involve essential factors that organisations must consider when seeking to understand the performance of employees at work. Understanding the effect of the work environment on nurses' job performance could lead to many benefits for leaders, nurses, and health organisations. The nursing shortage is a pressing concern around the world. A high turnover of skilled nurses can have serious implications for the quality of care, cost, and efficiency of hospitals. Improving nurses' working conditions should be essential to address the nursing shortage. Aim: To determine the effect of the Work Environment on Nurses' Job Performance. Method: This is a systematic review with a quantitative approach. The review followed the Preferred Reporting Items for Systematic Reviews. Our research team developed a study plan before initiating the literature search. In this plan, the search was refined to include only English-language articles published between 2017 and 2021. This search provided 58 applicable studies (MEDLINE: 13, Scopus: 19, ScienceDirect: 21, and PubMed: 5) related to the PICO question and limited to nursing. The literature in this review comes from different countries and presents a global view of the evidence, to determine the effect of the work Environment on Nurses' Performance. Result: The effect of the

positive change in the work environment on nurses' job performance will be the outcome; also that organizational climate is highly correlated with organizational commitment and perceived organizational performance. Also, the simple linear regression outcomes will be indicated that organizational climate is significant in predicting organizational commitment and perceived organizational performance. Conclusion: There was a positive and linear relationship between organizational climate with organizational commitment and perceived organizational performance. The regression analysis suggested that organizational climate has an impact on predicting organizational commitment and perceived, found to be an organizational performance of the employees in public hospitals of Saudi Arabia, work environment and nurse outcomes, job performance, and the impact of the work environment on job performance the results of the study's provided some critical issues regarding the relationship of three concepts in the study. In other words, if the employees in public hospitals of Saudi Arabia positively perceive the organizational climate.

**Keywords**--work environment, job climate, job performance, nursing.

## **Introduction**

Work environments involve essential factors that organisations must consider when seeking to understand the performance of employees at work. This research study intends to review the current literature on the research concepts 'work environment' and 'job performance', which are crucial for an organisation's growth (Ogata et al., 2021). In addition, understanding the effect of the work environment on nurses' job performance could lead to many benefits for leaders, nurses and health organisations. The current study provides a greater understanding of how the work environment may influence Saudi and non-Saudi nurses' performance. Therefore, in attempting to understand the influence of the workplace environment on nurses' performance, it seems essential to address relevant factors and clarify the terms used in the literature. Although many factors influence nurses' performance, in the current study, three themes were observed in the literature:

- Work environment and nurse outcomes
- Job performance
- The impact of the work environment on job performance.

## **Systematic search process**

Different electronic search engines, including PubMed, Medline, ScienceDirect, and SCOPUS were used to conduct the literature review. In addition, different grey literature sources, such as Google Scholar. The search strategy used the following keyword combinations and Boolean connectors to identify related articles: ("work environment" OR "job climate") AND ("job performance") AND

(nurse OR nursing OR nurses) see an example search strategy in MEDLINE (Table 1.2). Results from the databases were relevant to the PICO question (Table 1.1).

## PICO

- **Population:** According to Riva et al. (2012), the P (patient or population) of a PICOT question refers to the sample of subjects recruited for the study. In the case of the current study, Nurse professionals will be recruited.
- **Intervention:** Intervention is the desired change to be effected to help solve issues pertaining to the research problem (Riva et al., 2012). In the case of this current study, the impact of the work environment is studied, and intervention in the form of positive changes in the work environment will be executed
- **Comparison:** Comparison will be a reference group of subjects devoid of the study's intervention so that the effect of the intervention can be seen when compared (Riva *et al.*, 2012). In the case of this current study, hospitals with a poor work environment or the pre-intervention state of hospitals where interventions are implicated serve as the comparison reference group.
- **Outcome:** According to Riva et al. (2012), the outcome represents the effectiveness of the executed intervention measured with familiar and validated outcome measurement tools. In the case of the current study, the effect of the positive change in the work environment on nurses' job performance will be the outcome.

Table 1.1  
Search Process Strategy

|                       |  |
|-----------------------|--|
| PICO Question         | How does addressing work environment issues compared to not addressing such issues affect nurses' job performance as nursing professionals?  |
| Database              | ScienceDirect  |
| Date last searched    | Thursday, 10 March 2022  |
| # of results          | 21   |
| Final search strategy | ("work environment" OR "job climate") AND ("job performance") AND (nurse OR nursing OR nurses); Year(s): 2017-2022<br>Filter:<br>Research articles<br>Subject areas: Nursing and Health Professions<br>Access type : Open access & Open archive  |
| Database              | Scopus   |
| Date last searched    | Wednesday, 9 March 2022  |
| # of results          | 19   |
| Final search strategy | ( TITLE-ABS-KEY ( <i>work</i> AND <i>environment</i> ) AND TITLE-ABS KEY ( <i>job</i> AND <i>performance</i> ) AND TITLE-ABS-KEY ( <i>nurse</i> ) AND NOT TITLE-ABS KEY ( <i>student</i> ) ) AND PUBYEAR > 2016 AND ( LIMIT-TO ( PUBSTAGE , "final" ) ) AND ( LIMIT-TO ( OA , "all" ) ) AND ( LIMIT-TO ( SUBJAREA , "NURS" ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) ) |
| Database              | PubMed   |
| Date last searched    | Thursday, 10 March 2022  |

|                       |   |
|-----------------------|---|
| searched              |   |
| # of results          | 5   |
| Final search strategy | <p>((("work climate"[Title] OR "work environment"[Title] OR "job environment"[Title] OR "workplace environment"[Title] OR "workplace climate"[Title]) AND ("loattrfull text"[Filter] AND 2017/01/01:2022/12/31[Date - Publication] AND "english"[Language]) AND ("job performance"[Title] OR "nursing performance"[Title] OR "work performance"[Title]) AND ("loattrfull text"[Filter] AND 2017/01/01:2022/12/31[Date - Publication] AND "english"[Language]))) AND ((fft[Filter]) AND (2017:2022[pdat]) AND (english[Filter]))</p> <p>Translations<br/>fft[Filter]: loattrfull text[subset]<br/>english[Filter]: english [LA]<br/>fft[Filter]: loattrfull text[subset]<br/>english[Filter]: english [LA]</p> |
| Database              | MEDLINE   |
| Date last searched    | Friday, 11 March, 2022  |
| # Of results          | 13  |
| Final search strategy | <p>(TI work environment OR workplace environment OR work climate OR job environment) AND ( work performance or job performance or employee performance) AND (nurse or nurses or nursing )</p> <p>Limiters - Scholarly (Peer Reviewed) Journals; Linked Full Text; Date of Publication: 20170101-20221231; English Language; Language: English</p> <p>Expanders - Apply equivalent subjects</p> <p>Narrow by Subject Major: - work performance</p> <p>Search modes - Boolean/Phrase</p>  |

Table 1.2  
The results of the systematic search in Medline

| Search ID# | Search Options   | Actions   | Results |
|------------|------------------|---|---------|
| S13        | S4 AND S5 AND S6 | Limiters - Scholarly (Peer Reviewed) Journals; Linked Full Text; Date of Publication: 20170101-20221231; English Language; Language: English<br>Expanders - Apply equivalent subjects<br>Narrow by Subject Major: - work performance<br>Search modes - Boolean/Phrase | (13)    |
| S12        | S4 AND S5 AND S6 | Limiters - Scholarly (Peer Reviewed) Journals; Linked Full Text; Date of Publication: 20170101-20221231; English Language; Language: English<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase  | (46)    |
| S11        | S4 AND S5 AND S6 | Limiters - Linked Full Text; Date of Publication: 20170101-20220331; English Language; Language: English<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase  | (46)    |

|     |   |   |           |
|-----|---|---|-----------|
| S10 | S4 AND S5 AND S6  | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (93)      |
| S9  | S5 AND S6   | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (1,254)   |
| S8  | S4 AND S6   | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (3,003)   |
| S7  | S4 AND S5   | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (475)     |
| S6  | nurse or nurses or nursing  | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (419,728) |
| S5  | work performance or job performance or employee performance                     | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (11,358)  |
| S4  | TI work environment OR workplace environment OR work climate OR job environment | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (11,495)  |
| S3  | TI work environment OR workplace environment OR work climate                    | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (10,943)  |
| S2  | TI work environment OR workplace environment                                    | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (10,120)  |
| S1  | TI work environment   | Limiters - Linked Full Text<br>Expanders - Apply equivalent subjects<br>Search modes - Boolean/Phrase | (1,386)   |

The search was refined to include only English-language articles published between 2017 and 2021. This search provided 58 applicable studies (MEDLINE: 13, Scopus: 19, Science Direct: 21 and PubMed: 5) related to the PICO question and limited to nursing. The literature in this review comes from different countries and presents a global view of the evidence.

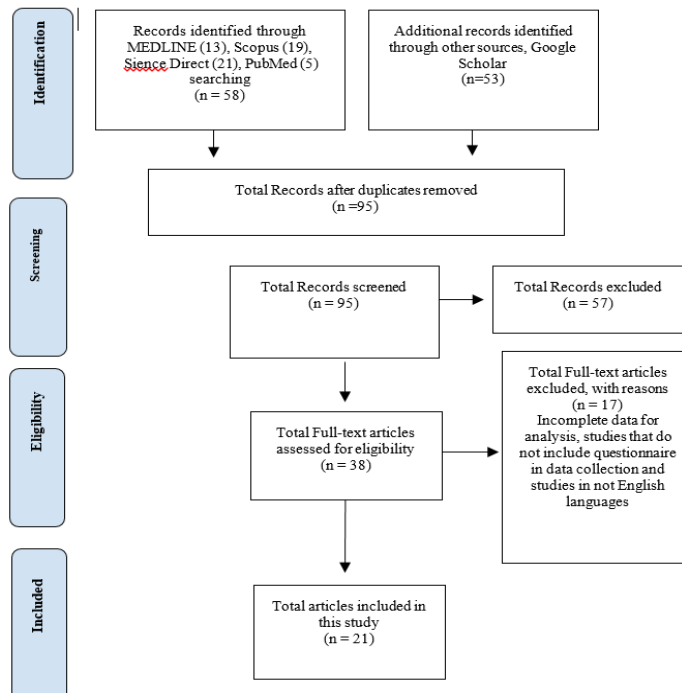


Figure 1.1. PRISMA 2009 Flow Diagram (Liberati, et al., 2009)

The final 21 papers that fulfilled the criteria for inclusion were also relevant to the PICO question after PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) was used to screen the records (Figure 1.1). Therefore, each paper has been reviewed, and relevant data have been extracted and arranged into evaluation and synthesis tables to facilitate a focused comparison of the research findings. Table 1.3 presents the themes and related papers. The researchers relied on the research question to include and exclude studies and key search words and synonyms were created from the research question. Study duplicates, incomplete data, studies that do not include a questionnaire in data collection, and studies not in English were excluded as they were primarily unrelated.

Table 1.3  
Themes and related papers

| Themes  | Related papers   |
|---|--|
| Nursing practice environment and nurse outcomes | (Ambani, Kutney-Lee, & Lake, 2020; Ogata, et al., 2021; Alharbi, Dahinten, MacPhee, & , 2020; Nantsupawat, et al., 2017; Salehi, Barzegar, Yekaninejad, & H, 2020; Rohail, et al., 2017; Grødal, Innstrand, Haugan, & André, 2019; Berberoglu, 2018; Galletta, et al., 2019) |
| Job Performance and its related factors         | (Rahiman & Kodikal, 2017; De Coning A. , 2020; Galletta, et al., 2019; Orgambidez, 2019; Sarıköse & Göktepe, 2022; Alonazi,  |

|   |   |
|---|---|
|   | 2020)   |
| The impact of the work environment on job performance | (Sarıköse & Göktepe, 2022; Cho & Han, 2018; Wafa'a, Alhurani, Alhalal, Al-Dwaikat, & Al-Faouri, 2020; Ogata, et al., 2021; Edem, Akpan, & Pepple, 2017; Mohamed & Gaballah, 2018; Bhatti, Mat, & Juhari, 2018; Shahnnavazi, Eshkiki, Shahnnavazi, & Bouraghi, 2021; Sadewo, Surachman, & Rofiaty, 2021) |

## Literature review findings

### General characteristics of studies reviewed

In total, 21 studies were included and reviewed in this study. The studies were predominantly quantitative descriptive surveys using questionnaires to collect data. Table 2.4 summarises the studies reviewed.

### Nursing Practice Environment and Nurses' Outcomes

Recent evidence has revealed that work environments play a significant role in nurses' ability to provide quality care (Ogata et al., 2021). Various international studies have examined the impact of different aspects of the work environment on nurses' work outcomes. Regarding nurses' satisfaction and job detrainments, in Japan, Ogata and colleagues (2021) conducted a study using a prospective, multicentre, longitudinal design that investigated nurses' perceptions of their work environment and the relationship between variables used to measure the work environment and nurses' outcomes. The researchers collected data from 11,380 nursing professionals using a questionnaire that included three tools: the healthy work organisation model, healthy work environments and the Environment Scale of the Nursing Work Index (PES-NWI). The study revealed that the higher the job position and positive work environment, the better the nursing outcomes, confirming a significant relationship between work environment and nurse outcomes, such as job satisfaction, retention or resignation and health status. Similarly, a Thailand study by (Nantsupawat et al. (2017), who conducted a cross-sectional survey to collect data from 1,351 nurses, applied random sampling to assess how nurses' work environments could affect their work outcomes.

The research problem that motivated the authors was nurse shortages in the healthcare system across several countries due to high turnover rates caused by, as the authors opined, job dissatisfaction, intention to leave and burnout. The study's findings reveal that the nurse work environment is a significant factor contributing to nursing retention. Nurses working in hospitals with better work environments had significantly less job dissatisfaction, intention to leave and burnout (Nantsupawat et al., 2017). In the same context, in Iran, a cross-sectional study by Salehi et al. (2020) investigated the relationship between a healthy work environment, job satisfaction and anticipated turnover among ICU nurses. As with most of the studies included, the researchers were motivated by the shortage in the nursing workforce and the tendency towards quitting, and the significant health system problems worldwide have had a negative impact on the

quality of nursing care. The study collected data from 270 nurses selected by a simple, randomised method. The study findings reveal that the nurse work environment is a significant factor contributing to nurses' job retention. In addition, their study found that a favourable nursing work environment had a significant direct relationship with job satisfaction. The authors concluded that a healthier workplace is related to better job satisfaction and a lower likelihood of quitting. Therefore, managers in critical care units can implement methods to enhance workplace health, increase job satisfaction and minimise the likelihood of nurses quitting (Salehi et al., 2020).

On the other hand, a Saudi Arabian study by Alharbi et al. (2020) conducted a descriptive study with cross-sectional data collected by questionnaire from 497 nurses. The study examined the relationship between nursing practice environments and emotional exhaustion, job satisfaction and intention to leave among Saudi Arabian nurses. Also motivated by numerous studies that have established a significant relationship between the nursing practice environment and nurse job satisfaction, work-related burnout and intention to leave, subsequently affecting their job performance. The authors also intend to solve the research problem of the less related research conducted in Middle Eastern countries and Saudi Arabia. In their study, the factors of the nursing practice environment, such as nurse participation in hospital affairs and enough staffing and resources, were linked to emotional exhaustion and job satisfaction among nurses. Other aspects of the work environment that affect emotional exhaustion, job satisfaction, and intention to quit include the competence of nurse managers, the leadership and support of nurses, and the nurse-physician relationships. The authors concluded that favourable work conditions in Saudi Arabia are crucial for recruiting and maintaining nurses in a country with significant nursing shortages (Alharbi et al., 2020).

Another Saudi Arabian study assessed in this research was by Ambani et al. (2020), who were also motivated to solve the challenging research problem of the nursing shortage in Saudi hospitals. The study used a cross-sectional design to assess the nursing practice environment and nurse job-related outcomes. The researchers obtained data from 404 Saudi Arabian nurses working in public and military hospitals. The study's path analysis revealed that an unfavourable nursing practice environment and a high patient-to-nurse ratio were predictors of nurses' burnout and work dissatisfaction, contributing to their intention to leave. According to the authors, their research contributed to the body of knowledge on this topic, as few studies have been undertaken in Saudi Arabia (Ambani et al., 2020). Regarding the work environment's effect on organisational commitment, nurses are generally eager to have a healthy work environment that provides them with a sense of worth (Berberoglu, 2018). However, an earlier Pakistani study by Rohail et al. (2017) used a cross-sectional design with questionnaires to collect data from 200 nurses.

The authors investigated the effects of work environment and engagement on nurses' organisational commitment in public hospitals. The authors were motivated by the lack of commitment and satisfaction among nurses in various Pakistani hospitals, opining that these factors play a significant role in adversely affecting their job performance. They were motivated to solve issues related to the

unsatisfactory nursing work environment and its impact on the nurses' commitment thereby affecting their job performance. Nevertheless, their study's findings reveal a significant positive relationship between a healthy work environment and nurses' organisational commitment, confirming that the latter is another advantage of a proper working environment. In another study, Grødal et al. (2019) used a longitudinal design to assess 43 nurses in Norway, with the aim to determine whether nurses' affective commitment is improved by a work environment that encourages well-being, ample job resources, a sense of coherence related to work and low levels of job demand. The study revealed that a sense of coherence related to the work environment was significantly and positively correlated with affective organisational commitment. In addition, the study found a significant indirect effect of a work-related sense of coherence autonomy and supervisor support on affective organisational commitment (Grødal et al., 2019).

On the other hand, Berberoglu (2018) adopted a quantitative approach to conduct a study of 212 healthcare workers to evaluate their perceptions of the organisational climate and test the hypothesised impact of the organisational climate on organisational commitment and perceived organisational performance. The study established a relationship between organisational performance and employee commitment in public hospitals in North Cyprus. The research, whose design used simple linear regression for analysis, identified the significance of providing the right work environment for employees to ensure strong employee performance in public hospitals. From the research, high scores on the organisational climate from employees translated into high scores on the hospital's performance. According to the North Cyprus study by Berberoglu (2018), a positive organisational climate means better hospital performance than an adverse organisational climate. Furthermore, the work environment greatly influenced employee commitment, showing a positive and linear relationship between these two variables. The study is essential to identifying the present research paper's expected outcomes (Berberoglu, 2018). Similarly, a cross-lagged analysis study by Galletta et al. (2019) was conducted among 221 Italian nurses to clarify how commitment and motivation of the workgroup together can influence nurses' performance. The study found that nurse managers facilitate practical workgroup commitment among nurses by creating a shared climate and eventually promoting continuous nurse improvement (Galletta et al., 2019).

### **Job Performance and Related Factors**

Much research on individual work performance has been published in numerous topic areas, with varying conceptualisations and operationalisations of the concept (De Coning, 2020). Regardless, an accepted definition of *employee performance* is the predicted value to the organisation of the individual behavioural actions in which an employee engages over a specific period (Mereish, 2020). De Coning (2020) conducted a study that followed a quantitative, cross-sectional approach with a non-probability convenient sample of 212 nurses in South Africa regarding the factors that affect job performance. The study investigated the association between nurses' psychological capital, work commitment and individual work performance. Research has found that psychological capital (as a personal resource: self-efficacy, hope, optimism and

resilience) positively impacts nurses' job performance. The study's results suggested that to enhance nurses' performance, managers and human resource professionals in the healthcare industry should intervene to develop nurses' psychological capital and raise their levels of job engagement to improve their performance. These aspects could contribute to improving organisational outcomes.

Similar to previous findings, Rahiman and Kodikal (2017) conducted a quantitative, descriptive study among 110 healthcare workers in India. The authors assessed the most critical factors of work-related attitude that influence employee performance. The study results demonstrated a strong and positive correlation between job attitude and job performance in the healthcare field. According to the authors, an employee with a positive attitude and an understanding of business dynamics could fine-tune the hospital environment, resulting in the overall development of the organization's performance and productivity (Rahiman & Kodikal, 2017). On the other hand, the more recent literature reports that organisational commitment and work motivation predict job performance. In the previously mentioned study by Galletta et al. (2019), the results revealed that nurses' commitment contributes to performance by triggering autonomous motivation.

The authors illustrated that while nurses performed their nursing tasks, nurses who aligned more closely with their workgroup's objectives felt more self-determined. According to the researchers' suggestion, nurse performance can be used to reflect a motivational process. Similarly, in Spain, Orgambidez and colleagues (2019) conducted a transversal and correlational survey among 324 nursing professionals. Based on the Job Demands-Resources Model, the research objective was to verify the mediating role of work involvement between self-efficacy and affective organisational commitment. According to researchers, work engagement has been found to be related to nursing personnel's essential attitudes and work behaviours, such as effective performance. However, the study reported high levels of self-efficacy at work among nurses, which contributed to their perceived ability to perform their tasks successfully, meet their goals and face difficulties and obstacles adequately and effectively. In addition, the study found that work engagement showed significant and positive correlations with affective commitment. Therefore, the authors suggested that healthcare organisations should be aware that greater recognition of performance and work involvement enhances affective commitment, thus improving an organisation's corporate image (Orgambidez, 2019).

Further, Sarıköse and Göktepe (2022) conducted a cross-sectional study among 370 nurses in Turkey. After reviewing literature implicating sociodemographic, organisational, career-related, and working conditions as significant factors that could affect nurses' performance levels, the researchers examined the effects of nurses' personal, professional, and workplace characteristics on their job performance. According to the study's findings, staffing and resource sufficiency, nurse manager competencies, leadership and support for nurses, colleague solidarity, and education level were key elements affecting job performance (Sarıköse & Göktepe, 2022). Alonazi (2020) reported an interesting finding in Saudi Arabia, who conducted a cross-sectional study among 340 nurses recruited

using the convenience sampling method. The author explored the impact of emotional intelligence (EI) on job performance among nurses directly treating patients diagnosed with confirmed cases of COVID-19. The research problem that motivated the authors was that EI is not a widely understood element of job performance among nurses working in various departments within Saudi hospitals. Furthermore, emotional skills, and their impacts on job performance, are rarely addressed in Saudi health organisations. The authors opined that creating a compassionate environment among healthcare personnel in patient-centred organisations may provide considerable advantages in improved staff performance and an increase in organisational best practices (Alonazi, 2020).

### **The Impact of the Work Environment on Job Performance**

Much of the reviewed literature points to the significance of a proper work environment to nurses' job performance. In the previously mentioned Turkish study, Sariköse and Göktepe (2022) confirm this, arguing that the nursing work environment is among the crucial factors affecting nurses' job performance. On the other hand, Edem et al. (2017) conducted a descriptive study among 40 health workers selected by the random sampling method. The researchers investigated the impact of the workplace environment on health workers to solve the research problem of the adverse effect of unsafe healthcare facility environments, such as poorly designed workstations, excessive noise, unsuitable furniture, lack of ventilation, inappropriate lighting, poor supervisor support, insufficient workspace, poor communication, poor fire safety measures for emergencies and lack of personal protective equipment, on the productivity of healthcare providers. In addition, the authors opined that the relationship between the health worker, their work and the workplace environment is crucial, representing an integral part of the work itself. The study findings have shown that the physical environment, social environment and work system associated with the workplace influence health workers' performance and productivity, suggesting that efforts should be directed towards improving these (Edem et al., 2017).

Similarly, Cho and Han (2018) assessed 432 nurses in South Korea using a cross-sectional study design to investigate the effect of unit-level nursing work environments and individual-level health-promoting behaviours on perceived nursing performance quality. The authors aimed to solve the problem of the ever-increasing severity of patient conditions in hospital settings by checking the role of the hospital settings, both organisational and individual, in the quality of nurse performance. The study results reveal that a healthy lifestyle and a good work environment would improve the quality of nursing practice and that nurses' health-promoting behaviours reflect their job self-efficacy, that is, the perception of nursing performance (Cho & Han, 2018). In the same context, the before-mentioned study by Ogata et al. (2021) revealed that the work environment directly improves employee performance, and this was confirmed by Ambani et al. (2020), who demonstrated that unfavourable nursing practice environments and high patient-to-nurse ratios contribute to decreasing the nurse job outcomes. Wafa'a et al. (2020) conducted a cross-sectional study among 195 nurses in Jordan to investigate the level of structural empowerment, and they explored its relationship with job performance among nurses.

The study found a significant positive correlation between structural empowerment and job performance, indicating a direct impact of the former on the latter. The authors suggested that nurse managers develop a work environment that positively supports nurses' job performance by empowering them structurally (Wafa'a et al., 2020). This finding supports Shahnnavazi et al. (2021), who conducted a cross-sectional descriptive study among 108 nurses in Iran and identified the relationship between perceived organisational climate and nurses' performance. The research problem that motivated the authors was that the hospitals in Iran are in poor condition due to the prevailing economic conditions; this, combined with intense competition from hospitals for insurance companies' limited resources, has substantially decreased profit margins. The study found a statistically significant relationship between perceived organisational climate and nurses' job performance. However, according to the researchers, organisational climate influences performance quality and hospital goals (Shahnnavazi et al., 2021).

Similarly, Mohamed and Gaballah (2018) used a quantitative descriptive correlational research design in their study of 110 nurses to explore the relationship between organisational climate and nurses' performance. The study's results illustrated a statistically significant direct relationship between nurses' perceptions of the workplace environment and job performance. According to the authors, a positive organisational environment that supports and offers favourable working conditions leads to job satisfaction and, as a result, high-performance levels (Mohamed & Gaballah, 2018). Unlike the previous literature, which focused on job performance based on self-rating, Bhatti et al. (2018) conducted a quantitative study among 364 nurses and their supervisors in Pakistan. A questionnaire was used to collect data, and the supervisor rated nurses' performance to eliminate self-biases. According to the findings, work engagement mediates the association between job resources (job features, supervisor and co-worker support, involvement in decision-making and job security) and nurses' job performance rated by the supervisor.

Furthermore, these results illustrated the significant impact of job resources on nurses' job performance, even when rated by the supervisor (Bhatti et al., 2018). Contrary to most of the studied literature, Sadewo et al. (2021) conducted a quantitative study among 152 employees of retail stores, and the authors examined the effect of the work environment on retail store employee performance in Malang Indonesia. Their research problem was the lack of employees on the one hand and poor employee performance on the other. According to the authors, employee performance is critical to the success and competitiveness of organisations. They opined that a good work environment is a perfect attraction for employees and positively impacts their performance. However, their study's results supported previous findings and revealed that employee performance is directly influenced by the work environment (Sadewo et al., 2021).

### **Strengths and weaknesses of studies in literature**

To critique the strengths and weaknesses of the research methods of the reviewed studies properly, an unbiased stance in identifying the adequacy and inadequacy of the research methods is required (Denise & Cheryl, 2017). It is also necessary

to understand the philosophical underpinnings of the papers presenting the ontological and epistemological positions from which the researchers adapt their methodologies and methods, and many ontological positions form the bases of the research (Tashakkori & Teddlie, 2010). However, the realism and relativism positions are the most popular, where the former maintains that one single reality called truth can be understood, experienced and studied, and this truth is independent of the human experience. Meanwhile, relativism maintains that reality is relative and subject to individual experiences; therefore, no single reality exists (Moses & Knutsen, 2012). With these concepts in mind, it can be stated that the 21 reviews understudy employed the ontological realism approach because they sought facts that are independent of the human experience using objective data collection techniques.

Furthermore, a researcher's epistemological stance is based on the methodology employed in the research (Oliver, 2010). Two epistemological positions, namely positivism and interpretivism, exist, where the former maintains that knowledge is attained through an objective process, a scientific method of hypothesis, testing, experimentation and statistical analysis. On the other hand, interpretivism holds that knowledge can be attained through the direct experience of people. According to this position, a researcher can only understand social realities through the eyes of the individuals experiencing such realities (Mack, 2010). The epistemological position of the 21 studies under critical review is objective positivism, where absolute knowledge of objective reality was impartially discovered to identify causes of outcomes. The authors sought verifiable evidence through standard scientific processes. The studies used a descriptive cross-sectional survey methodology using questionnaires to collect data, a quantitative approach rooted in realism, as it helps collate all available empirical evidence related to the research hypothesis for analysis, resulting in reliable, unbiased findings that can lead to verifiable conclusions and form an anchor for decision making (Denise & Cheryl, 2017). The appropriateness of the research methodologies used in the various studies is one of the major strengths, another of which is that the studied review methodologies are dependable because they seek objective truth and are not drawn from a subjective but an unbiased, objective view. Though the methodology used in this research is appropriate, there are some weaknesses. For example, the method could be marred if the participants are untruthful in completing the questionnaires, perhaps due to personal interest. There are also the issues of the total dependence on the voluntary consent of participants, time wastage and costs.

## **Conclusion**

The nursing shortage is an urgent concern in Saudi Arabia and is a global issue, and yet, as healthcare reform continues to evolve in Saudi Arabia, improving patient care quality and safety will continue to be the focus of healthcare organisations and healthcare-related research. The key to ensuring patients' quality of care is a healthy nurse work environment, which is essential in promoting nurse satisfaction, retention, and performance. Healthier work environments lead to more satisfied nurses, who will result in better job performance and a higher quality of patient care, which will subsequently improve healthcare organizations' financial viability. Fostering a healthy work environment

is a continuous effort. Nurse leadership plays an important role in reducing nurse shortages. In addition, the work environment affected the nurse's performance issue. The functional environment and authentic leadership styles are effective in inspiring and motivating nurses. A favourable work environment can enhance nurses' participation, improve nurses' satisfaction, and reduce nurse shortages, ultimately enhancing patient care quality and outcomes.

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