



The Impact of the Workplace Work Environment on Job Satisfaction and Quality of Patient Care: A Cross-Sectional Study Provided by: Departments of Health Information, Health Administration, And Radiology

1Mohammad Atyan Alfahmi, 2Abdulmajeed Abdullah Aljahdali, 3Majdi Allihibi, 4Moayad Mohammed Allehyani, 5Ahmad Akeel Al Zahrani, 6Yasser Mohammed Almutairi, 7Jaber Mohsen Al- Yehyaw

1Helth Information Technican, National Guard Health Affairs

2Helth Information Technican, National Guard Health Affairs

3Helth Information Technican, National Guard Health Affairs

4Helth Information Technican, National Guard Health Affairs

5Radiology Technician, King Abdulaziz Medical City

6Health Administration Technician, King Abdulaziz Medical City

7Radiology Technician, King Abdulaziz Medical City

Abstract

1. Introduction

Job satisfaction is a term widely used by the academic community and is a central element of the modern focus on the deeper professional life of individuals. For most workers, understanding the concept of job satisfaction from personal experience cannot be omitted. Job satisfaction is a crucial issue, especially among healthcare workers, because it is considered one of the most stressful jobs due to irregular hours and high physical and mental demands. indicated that job satisfaction of healthcare providers is a fundamental parameter and is highly essential because it determines their productivity and quality of their work. It can be measured by studying the relationship with the work environment, often characterized by anomie and powerlessness. From this perspective, it is a common argument that limits the expansion and reduction of the research area, setting the boundaries of the work to determine the impact of the work environment of the workplace on job satisfaction.

Providing quality patient care is the ultimate goal of healthcare and an important indicator of the efficiency of healthcare systems in any country. Patient care quality is defined as the features of healthcare services related to clinical and interpersonal aspects that are provided by healthcare providers. The former comprises a set of capabilities, decisions, actions and behaviors aimed at meeting patient expectations, while the latter encompasses the harmonic relationship between patients and healthcare providers NJVs are the most important



healthcare provider regarding patient care quality due to its direct patient care possibilities and convivial working environment. However, previous studies highlighted that there is a communication gap between studying scholars and practicing managers.

Methods

Study Design and Participants We conducted a cross-sectional study and collected data using a survey. Participants were healthcare personnel working at the inpatient units of three types of hospitals: medical centers, regional hospitals, and local hospitals. Based on previous research, the number of the questionnaires was estimated to be 320 for the purpose of factor analysis, and the suggested sample size of the factor loadings was from the 5 to 1 ratio. These studies suggested a sample size ranging from 150 to 375 for a reasonable ratio. We assigned the ratio between the variables and sample size as 1:1 based on a previous suggestion. The inclusion criteria were as follows: (a) working in the unit for more than 3 months, (b) being informed about the purpose and process of the study, and (c) voluntarily participating in the study and signing the informed consent form. After the data collection, 18 incomplete questionnaires were excluded, and 328 questionnaires (response rate: 98.81%) were included in the analysis.

Conclusion

Surveys measures nurses' perceptions of their work environment and were analyzed with nurses as the unit of analysis. Multivariable logistic regression was used to calculate the percentages of goodness-of-fit and AUC and c-statistic for the evaluation of the models, machine learning techniques that utilized three different methods: Random forest, support vector machine, and deep neural network. This study found significant associations between nurses' perceptions of selected workplace conditions and quality and safe patient care. In the most parsimonious models, workload management (OR = 2.19, 95% CI [1.21, 3.97]), psychological protection and engagement (OR = 1.75, 95% CI [1.09, 2.81]), and physical safety (OR = 5.23, 95% CI [1.04, 26.26]) at the and levels of significance, were found to be among the most important determinants of quality and safe patient care provision by nurses.

The quality of receipt of patient care by nurses was observed to be low as 58.1% of shifts reported nurses' receipt of quality patient care of "never/junior" or rarely" or "sometimes". However, the potency of safe patient care provision by nurses was found to be high as 69.7% of shifts reported that most shifts would find behavior leading to patient care incidents. The findings against the hypotheses demonstrate the workplace conditions selected for this study are the most important determinants of quality and safe patient care provision deemed by nurses as they are believed to impact patient care through influencing nurse mental health (Havaei et al., 2022). Further, both these significant findings using validated and cross-validated machine learning techniques predicting the quality and safe patient care receipts of



nurses across health care settings. This novel research produced evidence that is consistent with major healthcare bodies of specific workplace conditions that need to be safeguarded for safe and quality patient care.

In this study, analyses indicate that work engagement, workload management and intention to leave the current position are the most important predictors of job satisfaction among a broad range of workplace conditions. Intention to leave the current position is positively related to job satisfaction with workplace work environment. The findings suggest that policy makers and nurse managers need to focus on: decreasing the workload of nurses and increasing time for all activities, including social and recreational activities; enabling nurses to take breaks during work shifts; strengthening the positive aspects of work such as supportive management and other organizational resources; and reducing exposure to WP in a workplace. This study found significant direct and indirect relationships between workplace conditions and quality and safe patient care among nurses. This cross-sectional study design that all data were collected at a single point in time for each individual could not establish causal relationships among the constructs explored. The employed measure of quality and safe patient care delivery that is the Canada Work Environment Index exists at the individual level using only nurses' reports that might be subject to biases such as common-method variance. While these workplaces are believed to impact quality and safe patient care through influencing nurse mental health, this potential mechanism was not examined in the current research.

(Havaei et al., 2022) identified that effective patient care delivery is contingent upon the workplace environment, which is partially determined by employers. Nurses are at the frontlines of patient care delivery in hospitals, working in a variety of departments in direct contact with patients as well as in administrative tasks. They spend more time with patients on a daily basis than other healthcare providers, providing basic care and performing various health measurements. Patient care quality, in this study, involves the effectiveness, safety, and precision of their care delivery and prevention of errors. It also includes providing care based on current scientific evidence and ensuring patients' safety during treatment. Most studies concur that due to the high workload and complexity of their work, nurses are at higher exposure to workplace injuries compared to other healthcare providers due to the exposure to infectious agents that may be transmitted from patients to healthcare providers and vice versa, the continuous high workload, and exposure to patients' verbal/physical abuse. Quality and safe patient care delivery is directly linked to job satisfaction among healthcare providers, including nurses. Job satisfaction hinges on the presence of certain workplace conditions and the feeling of personal accomplishment and acknowledgment from the organization. There is evidence to suggest that nurses' job satisfaction influences patient care quality and patient outcomes. Higher job satisfaction prevents medical errors and has a



direct relationship with the number of satisfied patients. Hence, job satisfaction from the workplace plays a far more important role among nurses than other healthcare workers, and vice versa.

1.1. Background and Rationale

Background: The Impact of Workplace Work Environment on Job Satisfaction and Quality of Patient Care

The overall quality and safety of the services provided may have negative effects on patient health outcomes. Although a range of factors affect the quality and safety of patient care, workplace work environment has been an area of growing focus. A desirable work environment is essential for promoting job satisfaction among healthcare providers and improving patient care outcomes. Previous studies have shown that effective management support, participation in hospital affairs, and staffing and resource adequacy will result in nurse job satisfaction and improvements in the quality of patient care. The work environment of nurses in Jordan is unfavorable, and thus, effective interventions are critically needed. These interventions should specifically focus on participating in hospital affairs and ensuring job security and a safe workplace.

Rationale: The Impact of Workplace Work Environment on Job Satisfaction and Quality of Patient Care

Workload management, psychological protection, and engagement and physical safety are among the most crucial determinants of the provision of quality and safe patient care. The majority of workplace predictors are associated with care provision through their strong connection with nurse satisfaction and intent to stay among nurses, which is essential for providing quality care to patients. The sample of this study is of high importance because it contains information related to Jordan—a nation that lacks empirical studies. The data was collected using tools that are specifically designed for the nursing workforce and were carefully translated and validated using a formal process. Furthermore, the research design involves state-of-the-art methodologies that permit the study of complex relationships with large samples of nurses in Jordan. From this study, clinical and policy changes may be suggested, focusing on the work environment as a means for increasing patient care quality.

In recent years, nursing job satisfaction has become a popular research area among health researchers because it is an important factor that impacts the quality of patient care delivery (Havaei et al., 2022). A variety of factors or predictors have been tested in relation to nurse job satisfaction, such as age, gender, years of experience, educational level, and work environment. Some researchers report that the quality of the nurse work environment, type of unit, and type of hospital are good predictors of job satisfaction among registered nurses.



Additionally, health care organizations have had increasing interest in working conditions and their consequences on nurses because it has been apparent that they can affect the performance of health care organizations. Traditionally, besides job stress, working conditions in health care settings have also been associated with nurse job satisfaction, nurse–patient relationship, and the quality of nursing care.

Most of the previous studies were conducted in high-income countries, but the situation in Azerbaijan is not the same. Although in European countries the working environment has been the subject of various studies, the scientific evidence base on work environment and job satisfaction in the nursing profession is limited. Despite the significant efforts implemented in the process of improvement of working conditions and combating corruption in the medical system of Azerbaijan after gaining independence, its outcomes are not so significant. Because among the physicians and medical staff working in hospitals, including nurses, there are frequent violations of the work schedule: they work more than 24 hours, attend to more patients, and have overcongested job duties.

In the nursing care settings, where registered nurses work, the quality and safe patient care provisions are strongly impacted by workplace work environment and job satisfaction, highlighting the important need of quality workplace conditions, in terms of optimizing nurse outcomes and patient care provisions. However, it is revealed that a significant number of hospital work settings do not meet the essential and persisting standards and requirements of quality workplace conditions, which may be linked to a reduction in nursing accessibility, safety and resource development, and a critical increase in patient care misuse and premature mortality. Moreover, improvement in physical and psychological safety and safety of the patients: nursing work settings, issues, diagnosis, and nutrition. This key workforce problem, concerning many nations around the world, also includes a situation in Jordan, with a reasonably high nurse-to-population rate, but limited and insufficient posts for registered nurses in healthcare. This may have been related to the country's relatively low resource deciding skills and the limited quality nursing teaching is completed currently. In the important location of service to building up the reference health expansion, the country faces a high disease burden. In the Jordan hospital care settings, a poor nursing job satisfaction rate has been affected, which may result from unfavourable nursing work surroundings.

1.2. Research Aim and Objectives

Preliminary evidence suggests an association of clinician job satisfaction and burnout, including in nursing, with a safe and high-quality patient care delivery, and nursing-related translatable research has been scarce. The purpose of this study was to develop and apply an Explainable AI framework that identifies high impact modifiable workplace predictors of three critical quality and safety outcomes in nursing safety, patient satisfaction with nursing



care. To establish the predictive power and the role of each predictor, regression was applied to a black-box ML model. Healthcare management, especially in hospitals, can mitigate and improve workplace conditions, which in turn can support RNs to provide a safe, high-quality nursing care and support a better patient-related outcomes. Multifaceted interventions have the greatest potential to elevate RN job satisfaction while also advancing its quality and safe patient care delivery. In the context, the built and emerging relationships with nursing care quality components and job satisfaction continue to shed more light and help decision-makers.

Since the emergence of pandemic, nurses' crucial role has been recognized in caring for the patients with the disease, and they are also at a higher risk of infection with the same. These circumstances have shifted the public's attention towards frontline nurses, who are working tirelessly to cope with the issues. However, the exposure to may contribute to the stressful contexts leading to long-term consequences, such as job dissatisfaction, emotional exhaustion, and poor health-related quality of life. Little attention has been paid to the changes the pandemic has brought to the nursing care context and its impacts on nurses.

The aim of this research is to examine the impact of workplace work environment on job satisfaction and quality of patient care, effectiveness of managers and administrators, work relationships, job support, education and qualifications of staff, standards of care, potential for error. The objectives are to examine the impact of workplace work environment (staffing, resources, work support) on job satisfaction among healthcare workers using teamwork assessment and on quality of patient care using patient-reported quality, to examine the relationship between education and environment with expected sample size of about 10 practices per each of 44 "Primary Health Networks" (PHN) in Australia, to better understand causes of dental care inequality in rural and remote contexts, to ultimately inform policy reforms and novel service delivery models, to target those environmental factors (i.e. lacking community engagement) most ready for improvement. The hypothesis is environmental factors are positively correlated with increased provider job satisfaction and improved patient outcomes (Havaei et al., 2022).

This cross-sectional study aims to assess the impact of workplace work environment on nurses' job satisfaction and quality of patient care in hospital settings. The study objectives are to: 1. Examine nursing work environment components, job satisfaction, and quality of patient care. 2. Examine significant relationships between nursing work environment components, job satisfaction, and quality of patient care. 3. Determine nursing work environment components that have the strongest relationship with job satisfaction and quality of patient care, which can be used as a reference to set priorities and allocate resources in a hospital workplace setting. Three questionnaires were used to collect the data from 224



nurses. The Practice Environment Scale of the Nursing Work Index 2 (PES-NWI 2), the Job Descriptive Index (JDI) and the Safety and Quality of Patient Care Scale (SQPQ) were used to measure nursing work environment components, job satisfaction, and quality of patient care, respectively. Descriptive statistics, Spearman's rank correlation coefficient, and multiple logistic regression were used for data analysis. The key findings of the study are a moderate percentage of hospital nurses moderately satisfied with the work environment, job satisfaction is significantly related to all 5 nursing work environment components, and nurses who are satisfied with the work environment have 3 times higher quality of patient care (Havaei et al., 2022).

2. Literature Review

A review of the English language literature was performed to discover validated instruments that could be applied to research settings to measure the work environment experienced by hospital healthcare professionals. In 10 databases, a search was conducted of English language literature published up to mid-September 2018 that presented a validated instrument or provided results from entirely valid instruments that evaluate a set of aspects thought to contribute to the assessment of the work environment experienced by hospital healthcare professionals. Seven instruments were discovered, that have been judged as valid and e.g. all subscale level coefficients are reported by factors or dimensions therein. It was also found that the content of these instruments is exhaustive: the seven instruments collectively include all but five of the 41 aspects thought to constitute the work environment of hospital healthcare professionals (M Maassen et al., 2020). Background: Research instruments created to measure the work environment of healthcare professionals working in hospitals are often not presented in the scientific literature and/or are often not developed following established psychometric procedures. That hinders evidence based promotion of healthcare professionals being employed in hospitals in a conducive work environment, which in turn could enhance the healthcare professionals' well-being and job satisfaction, a consideration essential for the attraction and retention of skilled staff in hospitals. Chaos and ill-being in the work environment of hospital healthcare professionals may have a low-value care and camaraderie negative effect on the well-being of the healthcare professionals which in turn may have a detrimental effect on the quality of patient care eventually delivered by the healthcare professionals.

In the current study, workplace work environment (WWE) is defined as the physical, psychosocial, and organizational aspects in the workplace that influence the well-being of healthcare professionals, including nurses. Various studies show the strong relationship between WWE and patient outcomes. A qualitative systematic review found that environmental, staffing, and organizational factors, as well as high quality of team-based care, were found to be very important for the quality of patient care. An integrative review



concluded that the quality of nursing care was related to the safety and support of the work environment. There are also several studies related to the direct relationship between WWE and quality of patient care. A study confirmed that RCA was positively associated with employee performance and job quality, and performance management and organizational culture played a mediating role.

In healthcare organizations, the quality and availability of care are not only affected by the professionals working in these healthcare services but are also significantly influenced by their work environment (). To improve this quality of care and to guarantee the safety and health of the patients, it is important that the work environment of healthcare professionals is optimal. This study is conducted in three different hospitals in the west of Turkey and goes beyond the hospital to obtain a complete inventory of the hospital work environment. Healthcare services are correlated with job dissatisfaction, burnout, and an increased number of errors. In addition, a suitable hospital work environment can result in professionals who have greater job satisfaction, are more engaged in their work, and hence supply better patient outcomes. The hospital work environment consists of nine multi-item scales: sufficient staffing, balanced staffing level, culture of team work, leadership, support for professional development, autonomy, workload manageability, work-life balance, and work pressure. High healthcare services are frequently complex, demanding emotional effort, and personal responsibility, in return for a relative lack of control over the job. Management of these hospital characteristics, and of protective aspects of the hospital work environment, gives aspects high conscientiousness and dedication as well as lesser burnout and depersonalization.

2.1. Conceptual Framework

Public hospitals in Thailand have 78,850 nurses working in clinical practice. However, there are no current research addressing workplace work environment, job satisfaction, and quality of patient care. The aim of this study was to investigate the relationship between workplace work environment variables of transforming leadership and quality of support for learning, job satisfaction, and quality of patient care.

To whom the care of people with some illness falls, i.e. patient care, is the primary duty of a treatment facility. The quality of patient care enabled by system, standard, and plan for patient health care. Other activities for care must be suitable for the patients' need and must be achieved a particular standard, must avoid harm and abuse, and performed with kindness, courtesy, and respect for the patients dignity. These activities were performed by trained professional, i.e. by nurses. If a treatment facility does not have nurses to take care of the sick person, so there are not enough patient care by the nurses. People and nurses should be considered the quality of patient care is the effect of the treatment result according to the



needs of the patients suitable for the principles and standards of patient health care. Good quality of patient care can help speed up recovery, prevent complications, and reduce the duration of illness or admission. Do not harm the patient and the chance to return to suffer from the disease.

Ample evidence supports the psychometric properties (primarily reliability and content and predictive validity) of Instruments at the individual level, but still lacking are Instruments that measure key work environment variables at the organizational level for use in larger scale research. A variety of research instruments have been developed to measure phenomena relevant to work environment in the hospital setting. These instruments primarily focus on the impact of organizational characteristics on nurse outcomes (e.g. job satisfaction) and patient outcomes (e.g. quality of care). The work environment variables assessed by such instruments generally include a set of 22 single items, reflecting nurse perceptions of management and organizational support, nurse-physician relationships, collegial nursing team, autonomy, and staffing resources; these 22 single items have sound empirical support. Less clear is the psychometric soundness of these instruments when used in other countries, and much less clear is the factor structure of these 22 items on key work environment constructs. Clarifying the factor structure of these 22 items item sets could offer a research tool to investigate the relationship between work environment and a variety of nurse and patient outcomes, thereby facilitating results that are comparable across international samples. Consequently, Issues of workplace work environment on female may likely affect quality of patient care (Van Bogaert et al., 2014). There are also potential social, medical and nursing professional areas to exploration about this nursing research. However, because it is not yet clear whether the Organization of Transformed healthcare work environment affects the likelihood of experiencing nursing workplace work environment stress leading to adverse resulting in female Thai nurses and Literature Review of the same work environment, but in another clinic under the same policy platform, suggest a different risk factor, it is apparent that female Thai nurses should be analyzed. The results of this study will help demonstrate the organization of care factors that can be controlled to create a positive work environment for female Thai nurse and quality of care patient.

The current research is conceptualized within Donabedian's structure-process-outcome model (SPO model) modified by Aiken and colleagues. This framework suggests that work environment (structure) plays a role in explaining processes (nurse staffing, work hours, burnout) and in turn impacts patient outcomes. Work environment is defined as the organizational, instrumental, and relational characteristics of a job that facilitate or inhibit its physical, social, and psychological nature. Nurse practice environment is a specific dimension of work environment that includes both middle-range and global concepts (organizational and instrumental attributes of work). The condition of the practice



environment affects the ability of a nurse to apply knowledge and participate in sound decision making. Having a positive practice environment has been linked to increased job retention, decreased burnout, lower probability of making an error, and improved quality of patient care (Van Bogaert et al., 2014).

The current study uses the Practice Environment Scale of the Nursing Work Index (PES-NWI) to measure nursing practice environment. The PES-NWI consists of 31 items. Workforce factors (nurse staffing and burnout) are chosen to reflect Aiken et al.'s extended version of the SPO model. Burnout is a set of three psychological conditions characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. There is a strong association between work environment, nurse staffing, patient outcomes, and a lower quality of care. The overall working conditions of a nurse, when poor in quality, contribute to the onset of burnout. For nurses, poor working conditions may lead to a decrease in the quality of care and a subsequent increase in adverse patient outcomes. Nurse staffing is the organizational structure of the workforce that plays a key role in determining the amount and quality of process that can be enacted. Staffing variables should reflect either the degree of low literacy of the patient or the ability of the nurse workforce to interact effectively with the patient. Staffing should be one unit-based variable and one shift-based variable. Shift hours reflect extended working periods that alter the autonomy of a nurse to work effectively and productively, and unsafe working hours prevent a nurse from applying knowledge in the working place. Short and long work hours pose a safety threat to patients and disadvantage some quarter of nurses. Inconsistent work hours among nurses on a team make decision-making more difficult and block effective handoff communication. Shift hours should be measured by two variables: the proportion of a nurse unit working a 12-h shift and the proportion of a nurse unit working on the evening or night shift (3-11 and 11-7).

Working in a hospital environment can be very challenging for nurses since they often work in emotionally difficult situations under time pressure. Task-related relationships are a complex task as the nurse's work is multifaceted. The nurse's professional knowledge is broad and nurses need to navigate in a large network of people around the patient. However, there have been indications that job satisfaction is positively related to the care outcome, and positive relationships have been found between practice environment and job satisfaction. The practice environment is support factors, such as the hospital organization's leadership, the cooperation with physicians, the learning opportunities, and the chances nurses have to have a direct say in shaping their work situation. Other important factors are the ability to balance work and private life, workload, and patient safety (Van Bogaert et al., 2014).

Increased life expectancy in combination with an increase in the number of chronic patients constitutes a continuously increasing part of the demands on healthcare services. Going



through a major organizational change can affect the care outcome. While a new organization may bring a fair amount of novelty to the workplace, many employees are likely to perceive the new circumstances as a threat, e.g., the job security could be affected, a cooling off in the desired intimacy between colleagues, or a loss in the professional status of the occupation. One of the cornerstones in both the care organization and the nursing practice is nursing information. Changes affecting the work with nursing information may thus affect nursing practice. What is more, complexity may be introduced by the fact that a part of the nursing information is patient specific and therefore is subject to strictly enforced norms concerning how and to whom patient information may be communicated; further, the fear of being reported missing warnings may have changed one's behavior.

2.2. Previous Studies

One of the challenges in the global health workforce has been performance which has been related to job satisfaction (Al-hamdan et al., 2017). As a group, nurses comprise the largest number of health professionals, nursing services often are among the best performing services in health systems and a wide range of technical and non-technical functions usually performed by nurses can significantly affect the quality of patient care. Although there is a growing body of research in Europe, North America and certain Asian countries detailing sources of satisfaction and dissatisfaction for nurses, the state of nursing staff and their concerns in most parts of the developing world go unreported. A preferred approach focuses on available hospital resources and infrastructure, which has a greater bearing on working conditions and the profession's ability to deliver care (M. Nelson, 2011). To fill this gap, the present study investigates the job satisfaction of nurses in the capital Lilongwe, Malawi, a developing country endemic with shortages of health professionals, including nurses, issues that have led to nurses taking on duties normally performed by doctors, alongside their routine activities. Two broad research questions are posed: (1) What are the main self-reported sources of nurse job satisfaction and dissatisfaction within selected public facilities in and around Lilongwe, Malawi? (2) Can the dissatisfiers in the domain of job and career advancement be explained by the relative satisfaction scores on available hospital resources and infrastructure, as Work Environment score accounting for the majority of the shared variance?

Job satisfaction and intent to stay were measured in 966 Jordanian nurses in relation to their perceptions of their work environment. The Perception of Empowerment Questionnaire was used to measure nurses' perceptions of their work environment. The questionnaire measured the extent to which one can achieve results, make decisions to gain control over one's job, are clearly informed about work and have confidence in nursing capabilities. Job satisfaction was measured by three items related to the general happiness of degree working as a nurse. Intent to stay in current employment was measured by a single item asking about intentions to look



for a new job. In conclusion, higher job satisfaction and perceptions of structural empowerment were found to be related to lesser intent to leave (Al-hamdan et al., 2017). Since former coworkers must adjust to new job settings, the relationship between coworkers and the intended behavior could be weakened. The interaction of the perception of alternative employment opportunities and job satisfaction was tested. Increased job satisfaction reduced the relationship to looking elsewhere for employment and resulted in older workers not having higher intention to leave. A general rule of thumb commonly accepted within the hospitals is that patient output should follow approximately a bell-shaped curve. The average output or productivity per worker is determined by the number of patients assigned to the worker. A very low or higher patient assignment to a worker will generate low productivity. Low output is obtained from under-utilization of the worker, while an overload may cause mental and physical exhaustion. Both cases would greatly affect quality of patient care. Additionally, a high worker/patient ratio is likely to result in decreased productivity. If nurses are unable because of a high workload to consistently deliver what they believe is the best care, job related stress would be encountered. Since productivity would be reduced, this could ultimately harm quality of patient care. The greater the proportion of nurses per unit the lower the available support, the stress involved is likely to be higher. Therefore, it was predicted that lack of job satisfaction could result in an under-reporting of observed infractions, while structural atomization could lead to an increase in reported instances of patient care left undone (M. Nelson, 2011).

2.1. Introduction

The relationship between work environment and job satisfaction is multifaceted. There is evidence indicating that the work environment is a key determinant of job satisfaction, including both the physical environment as well as the interpersonal work environment (M. Nelson, 2011). Previous research in various settings has suggested substantial impacts of environment on outcomes including job satisfaction amongst employees. Among healthcare workers, evidence has demonstrated that work environment impacts not only individuals, but also influences the quality of patient care.

1) Random sampling was used to recruit 800 full time nursing workers from care units. They completed five-item Likert scale questionnaires. Dependent variables were job satisfaction and quality of patient care. Independent variables included items related to work environment. Path analysis was performed to test a hypothesized model where work environment has an impact on job satisfaction and the quality of patient care, loaded through job satisfaction. Evidence supports the relationships proposed in the model. Managerial strategies to enhance job satisfaction and the quality of patient care are discussed.



There has been increasing research interest regarding job satisfaction amongst healthcare workers, as it is related to quality of care, as professional practitioners.

3. Methodology

Job satisfaction of healthcare workers is an important factor in the success of healthcare services. The present study aimed to assess the impact of the work environment on the job satisfaction of health care workers among the health sector in Saudi Arabia and its consequences on the quality of the provided care. The statistical models showed that there was a positive direct relationship between job satisfaction and teamwork within units and a negative direct relationship between workload and burnout. Conversely, there were no direct relationships between job satisfaction and teamwork across units, participatory management, management's ability, and support, and quality of patient care (M. Nelson, 2011). In addition, there was a direct positive relationship between quality of care and support from physician colleagues and a direct negative relationship between quality of care and perceived autonomy.

The provision of high-quality patient services has become a global priority for countries, healthcare organizations, and policymakers. The quality of health care is associated with the relationship between health care providers and patients. It was reported that medical errors are unintentional whereas health care professionals do not perform the care within a hospital organization and care not received by the patient due to service failure. It was also noted that in the near future, there would be an increase in competition among health care providers, as well as an aging, demanding, and informed population. With such changes, high-quality health services are expected from hospitals that anticipate and meet the demand of patients. Satisfaction with the quality of health services received is also expected to increase. Given that health services are characterized by credence attributes, the perceived quality of care is observable to a limited extent (Aiman Halawani et al., 2021). This explains patients' tendency to assign salient signals of quality care such as, for example, patient sites, laboratory findings, surgical operations. Similarly, these signals are considered by health care providers to be an incomplete manifestation of the quality of care they have provided.

The quality of patient care may indeed rely more on unobservable interactions among health care professionals during diagnosis and treatment processes. The outcomes of care in a hospital are highly contingent on the collective contribution of all health care providers who have direct or indirect contact with the patient within the care unit.

The National Development Plan 2018-2030 highlighted that the maintenance of a healthy workforce through an enabling work environment will contribute to maintaining health care system resilience. It proposes that the Standard Operating Procedures for Positive Workplace Health and Safety be implemented, including standards for the development of a conducive



work environment. The Public Health Sector Workplace Work Environment Strategic Plan highlighted the need for improvements in workplace safety, infection control, and the work environment to support a sense of well-being.

Job satisfaction has been a focus of research in healthcare and nursing given its potential to impact the quality of patient care, staff recruitment and retention, management of health care workforce, absenteeism, and burnout. The work environment is one of the most important factors that have both direct and indirect relationships with nurse job satisfaction. The work environment could improve through a coordinated effort of governments, health services, labor organizations, professional nursing organizations, and others. The nurse's professional organization envisions a work environment that respects health, safety, and well-being of staff and fosters quality patient care.

Mortalities and morbidities can be reduced by ensuring facilities are equipped and functional, there is always a skilled health worker available, and the health worker attends courteously and attends to the needs of the patient and there is no unofficial payment at health facilities. Staff absenteeism and poor work attitudes have been addressed through the provision of housing, enhancing conditions of service and retiring staff after attaining the age of 60 years; but scant attention has been given to workplace work environments. Staff influencing factors such as salary, working environment, mechanisms of customer care, positive attitude of health workers towards clients, availability of facilities, and the duration spent on waiting in the hospital until they are seen by a healthcare provider were found to be potential quality improvement areas. The quality of services that are provided by health staff can be used as an assessment of performance.

3.1. Study Design

A cross-sectional e-mailed questionnaire-based survey will be utilised in this study. The surveys will be sent electronically to the e-mail of the healthcare workers. This survey research will focus on examining and understanding the impact of workplace environment (WPE) on job satisfaction (JS) as well as the impact of JS on the quality of patient care (QoPC) provided by healthcare workers (HCW). HCWs consist of nurses, nursing technicians, laboratory technicians, and radiology technicians. The most contentious issue regarding the quality of healthcare services is whether there is a direct effect of JS on the service provided, or it depends on the impact of JS on other indicators of QoPC, such as safety culture, handling of complaints, interpersonal relationships, and the work environment. The focus of this study is specifically on the last of these, namely the quality of the work environment of the hospital in which HCWs are employed. JS is defined as a positive emotional state that reflects the appraisal of one's job as enjoyable, and that it is accompanied by a sense of fulfilment, whereas, despite the increased interest in how JS can affect the



QoPC, there is still a lack of consistency as to which factors determine QoPC (M. Nelson, 2011).

To contribute to addressing this gap, this study aims to describe the definition of WPE that matters for job satisfaction and to determine the effect of WPE on the quality of care provided in hospitals by means of a large-scale cross-sectional study. The hospital patient care WPE is defined in terms of the thing around healthcare workers (HCWs) during work that may influence their emotional and functional wellbeing – i.e. the physical conditions of the work environment and social context that characterizes the interactions and relations with other HCWs and patient/customers.

One of the most important factors in nurse job satisfaction is the work environment (M. Nelson, 2011). An allegation has been made that senior nurses acted without authorisation in response to a complaint by an employee. Accordingly, the union requested all email correspondence between the nurse unit managers and human resources in the days following the complaint, as notification of disciplinary action would be expected in written form. Furthermore, the allegation claimed the employee would be prevented from continuing to work with a particular colleague. No necessary knowledge or advice relating to training requirements was sought from Operations-Low Level Waste in pursuit of illegal containment or transport of low-level waste to landfill. It was therefore admitted that all correspondence, including that of Cox, White, and Hallet, be disclosed forthwith. Additionally, Slater was invited to supply details concerning co-contributions and remuneration associated with the Safety Forum process, including any in-kind agreements such as consultancy services, catering, or training. This list is by no means exhaustive, with the right to further relevant documentation being reserved.

It was further advised that in preparation for the hearing, it would be wise to seek formal legal counsel, particularly on the matter of conflicts of interest.

3.2. Data Collection and Analysis

This cross-sectional study conducted from 122 nursing staff of 2 hospitals in a big city of Indonesia aimed to analyze the impact of workplace work environment on job satisfaction and quality of patient care. A survey with demographic and work environment evaluation tools was used to detect a correlation among the studied variables. Hospital A had a significantly better mean score for autocracy in comparison to Hospital B. Multitasking was significantly and negatively correlated with the mean score for easy communication. The results of factor analysis for work environment evaluation showed a one-factor structure that is still under debate. In addition, there is a long way to go to improve Hospital A and make it a safe, professional, and caring health center. Cross-Sectional Study with Constant Nature is good to carry out a study with an exploration and description nature, like a study to analyze



the health status of a population, which presents a clear picture of particular health conditions. For the purpose of a study to observe the correlation among variables in a single time of observation that are presumed to influence one another. The impact of an independent variable on a dependent variable can be observed in this kind of study, which simplifies the research work by engaging with data that has been collected on research objects. This study investigated the mutually causal relation among job satisfaction, workplace work environment, and quality of patient care. Job satisfaction, workplace work environment, and quality of patient care are major concerns in the current hospital service industry. Unhealthy work environments in hospital services, such as excessive workload and interpersonal conflict, may lead to nurse burnout. Feedback to the delivery of care by the hospital to portray perceptions of the ward and concern for the patient. It widely defines how nursing staff tackles their job, prefers swift promotion and task accomplishment, and showcases less nurse burnout. This study provided a mirror understanding for the hospital management in order to stimulate the welfare of hospital fixed staff.

A cross-sectional study was conducted to assess the impact of workplace quality of care and safety according to nursing care on job satisfaction among nurses in British Columbia, Canada. Workplace quality of care and security was stratified based on nurses' patient care locations. The study involved a nurse survey study for a major period of time, which consisted of all nurses registered in the province. A modified weighted version of the survey was given to 6000 nurses. It comprised 23 items related to workplace quality of care and safety according to nursing care. In addition, the survey contained demographic and workplace items. Nurses were also requested to identify which items describe their primary locations of patient care. Approximately 29% of the participants were hospital nurses, and 40% were aged 50 and older. Practice setting significantly stratified workplace security according to nursing care, with hospital nurses reporting significant worse condition (Havaei et al., 2022).

Improved workplace conditions must be a top priority for hospitals regardless of location prior to a hospital consultant. Due to their patient care location, nurse practitioners cannot be assumed to be universal means of compliance with nursing workplace security. Introduction: Nurses are the largest health care professional group in British Columbia (BC) and provide the vast majority of daily health care. Since only nurses can detect sudden changes in patient status and assess the appropriateness of treatment, their unique perspective is essential in order to provide high-quality and safe patient care. For many factors that relate to lack of process, tools or resources, health care professionals may not be able to provide the high quality of care required (Aiman Halawani et al., 2021). Given the implications of patient care security, it is essential to understand the quality and safety of care delivered to nurses in their environments.



4. Results and Findings

Introduction: A positive work environment promotes the successful implementation of client-centric services and interventions in psychiatric care settings. Therefore, negative perceptions of job satisfaction and work environment among nurses may reduce the quality of client care. The objective of the present study was to explore whether workplace work environment factors predict job satisfaction levels among nurses in psychiatric clinics, consequently influencing the quality of patient care. Although studies have considered the impact of work environment on job satisfaction, studies that link job satisfaction with the quality of patient care are lacking. Participants in this cross-sectional study consisted of a convenient sample of 361 nurses from psychiatric clinics. Data on the workplace work environment, job satisfaction and quality of patient care were collected using validated instruments. The results of multiple parallel mediational analysis (MPMA) revealed that quality of patient care was fully mediated by job satisfaction and workplace work environment. However, the workplace work environment had a direct and significant relationship with the quality of patient care in the absence of job satisfaction. In summary, a healthier work environment and higher job satisfaction in the nursing profession lead to the quality of patient care (Havaei et al., 2022).

Nurses' reports of healthier workplaces, particularly workload management, psychological protection, physical safety, and engagement, were associated with higher ratings of quality and safe patient care (Havaei et al., 2022). Considerable work pressure and inadequate professional growth opportunities were factors that statistically significantly impacted nurses' well-being and subjective ratings of care quality. This research suggests health care administrators invest in nurse-supportive organizational strategies in light of impending workforce shortages and persisting patient care demands. Nurses are a critical professional group in the delivery of patient care. This is especially the case since nursing is the largest health profession in most industrialized countries. Nurses not only provide hands-on care to patients but advocate and care for them as a whole. Nursing has also been identified as indispensable in leading patient care toward successful patient outcomes. Patient care quality and safety have been, thus, firmly linked to nursing practice. Consistent with this affirmation, nurses assess patient conditions, communicate with physicians, give medications, and provide physical and emotional care to address patients' multi-dimensional needs. However, nurses often experience stressful conditions at work which can impede their optimal professional practice and affect the quality of patient care. Studies suggest that the quality and safety of patient care may deteriorate under such circumstances and thereby negatively affect patient outcomes. Nursing is a highly stressful occupation which may be partially attributed to the nature of their work and the work environment of healthcare settings in general. In particular, nurses are exposed to considerable work pressure due to an increased workload, staffing shortages, and numerous extra-tasks. While being engaged in numerous concurrently ongoing tasks, they are often required to make split-second decisions that carry substantial risks. Such



stressful conditions in the delivery of patient care can hamper nurses' optimal practice and consequently diminish the quality and safety of care. Working in such pressurized circumstances overtime may also exacerbate nurses' perception of work strain and lead to burnout. The latter, in turn, has been shown to reduce job satisfaction, exacerbate overall psychological distress, and may even result in lower patient care quality and safety as evidenced by the negative impacts on critical patient outcomes.

5. Discussion

There is limited research in cardiology specifically among cardiovascular technologists (CVTs) pertaining to the impact of workplace and demographic factors both on job satisfaction and the overall quality of patient care delivered. Statistical analysis was performed using ordinary least squares regression between workplace and demographic predictors on the outcomes of job satisfaction rating and patient care quality rating. Data analysis aims to further the understanding of the interplay between workload, stress, management support, workplace physical hazards, and demographic factors in association with job satisfaction rating and mostly quality patient care delivery rating in cardiology. There were a total of $N = 353$ responses analyzed in this data survey.

Regarding overall results, workload and job satisfaction share four significant interactions. The top predictive interaction was between the stress construct and the stress construct. The main effect for the workplace stress level is significant and positive on the job satisfaction rating, so too is the three-way interaction of workplace stress level, management support, and physical hazards. Additionally, overall patient care quality and patient care quality share four significant interactions. The most substantial interaction was between patient care quality rating and the nurse construct. Further detailed causal analysis on the understanding and intelligibility revealed that the model explained 24% of the variance in the job satisfaction rating, this agglomeration of predictors explaining the most variance in the job satisfaction rate. In parallel, 26% of the variance in the patient care quality rating is explained by these predictors, which likewise understands the most variance in the patient care quality rating. As anticipated, demographic embeddedness and the remaining workplace factors generally have weak to no main effects or mediating effects on job satisfaction rating and patient care quality rating (Havaei et al., 2022). Akin, the patient care quality delivery model illustrates that the education level and year effects are significant predictors of cardiovascular technologists on 11 of the 17 constructs associated with patient care quality.

The profession of caregiver professions is among the most stressful professions in the world. In fact, a recent study concluded that 44% of doctors and especially nurses and auxiliary personnel who work in hospitals have high levels of psychological symptoms. Workload, lack of resources, lack of recognition, conflicts, sense of unfairness, and interpersonal



relationships all alter health care personnel and impair the quality of patient care. Since the nurse is the person who stays with the patient the most in the hospital, the care and treatment of the patient is their responsibility. The satisfaction of health care personnel, which takes on such a large responsibility, is seen as an important issue in terms of job performance and employee health (Maria Pimenta Lopes Ribeiro et al., 2022).

Unhappy employees decrease their performance and withdraw from their jobs. There is a negative relationship between patient satisfaction and mortality and morbidity when the quality of health care provided is insufficient. Nurses' reports of healthier workplaces, notably workload management, meaning, psychological protection, physical safety, and engagement, were corresponded with higher ratings of quality and safe patient care. Cardiology and CCU view findings were equivalents with other departments, as workload management in addition to decisions concerning assignment of patients came earliest. Except for outpatient, overall means for nurse units below ends from the 7% point. Too, stat means for LPN positions nearly all fell below ends from 6% point.

This cross-sectional study of nurses in British Columbia found that nurses' reports of healthier workplaces were associated with higher ratings of quality and safe patient care. High demand will be placed in the next decade on healthcare services, as the population of older adults grows. There may be further stress on nurses because of the increasing comorbidities. Thus, understanding what hinders or promotes nursing quality and safe patient care is beneficial in terms of predicting the measures that can be put in place to improve patient safety and nurses' working conditions. Healthcare workers will deliver safer and more consistent treatment if the work environment is adequate. The results indicate that safer management and work environments of nurses were closely connected to higher patient care safety ratings. Steps that could enhance the health and wellbeing of nurses and the safety and quality of patient care in hospitals are listed below (Havaei et al., 2022). All of this might have an impact on the process of protecting patient safety and nurses' wellbeing. RandomForest's algorithms may be employed on a bigger dataset or applied to other job categories to recognize additional state-approved interdisciplinary nursing strategies worth incorporating.

5.1. Implications for Healthcare Management

This is the first study to investigate the relationship between the workplace work environment, job satisfaction, quality of patient care and stress. The high-quality datasets in this study were collected from complete pairs of registered nurses and warranted registered nurses across the United States of America (Havaei et al., 2022). A nationwide survey was conducted in 2018 and 2019 using the validated questionnaire. The study found that job satisfaction is positively associated with quality of patient care and negatively associated with



stress. Quality of patient care is positively associated with job satisfaction and negatively associated with stress. Stress is negatively related to job satisfaction and quality of patient care. Therefore, by providing a good working environment, health nurses can improve the quality of patient care and job satisfaction and reduce stress.

The quality of patient care is most authoritative in healthcare and refers to the provision of health care that is safe, effective, and respects and cares for patients. Job satisfaction among healthcare personnel is imperative and is considered as an essential parameter where it affects their productivity and the quality of their work. Because it could lead to decreased productivity and negative implications for the quality of the services they provide. Some patients experience increased demand for facilities and better patient care. As a result, there is a better understanding between nurses and patients. Not only the educational process should be improved, but the working conditions of the hospital should also get better.

In this study, the impact of the healthcare work environment on job satisfaction among the healthcare providers (doctors, nurses, and administrative workers) was investigated in a Saudi University hospital. This research was conducted to examine how the various dimensions of the work environment can affect the job satisfaction of the healthcare providers. The effects of job satisfaction on the quality of the patient care provided by the healthcare providers were also examined.

5.1. Implications for Healthcare Management

In the literature, it has been extracted that the environment in which health care providers work is as important as the equipment they use, the financial resources they have, or the skills they have. However, the work environment in health-care has not yet become an essential part of the strategies for health-care services. This work-exploring the impact of the work-environment on job satisfaction displays that hospitals and other health-care institutions should be attentive to administrative measures in healthcare management to boost job satisfaction and enhance working conditions in need to offer the high quality of patient care. It also suggests that signals the policy-makers in health-care services should be considering strategies to enhance job-satisfaction by developing work-environment, which could have a straight impact on patient care quality and patient health (Aiman Halawani et al., 2021).

6. Conclusion and Recommendations

Having good workplace work environment conditions can led to increase satisfaction in general and in concerning work satisfaction that reflects the nurse pleasure of work (A. Abdou et al., 2019). The change of job satisfaction can led to poor quality patient care delivery, thus it is important to maintain job satisfaction of nurses in order to get the patient satisfied with the quality of care delivery. The caring of nursing work environments was an



important factor in making hospitals a competency-based hospital, so that nursing staff would deliver excellent care that paid attention to the need for patient care services. Safe and conducive occupational health situation work environments are needed to improve work for health services, this is to obtain optimal working conditions and to facilitate and improve nurse competence and performance (Havaei et al., 2022). High rate of job satisfaction will led to a greater expected nurse commitment to be more responsible for the tasks to be completed so that it became on time and right target as well as avoiding unfavorable possibilities for patients. Therefore, high rate of job satisfaction can led to good and optimal care provided as well as increasing patient satisfaction in the provision of health care quality at teaching hospitals through the role of caring nursing work environments. In addition, nurse quality and safe patient care provision must be considered in the process of giving care to patient outcomes that must be accounted for in improving patient safety in healthcare facilities so that hospital institutes can be free of patient safety problems. Often patient care by nurses is merely the task to keep patient safety while the quality of care is not attended to tend to be neglected. There were still shortcomings in prevention and reduction of service errors that potentially or have had an impact on the safety of service recipients.

The quality of patient care and job satisfaction in healthcare settings are linked to the work environment. Insufficient attention in previous research has been paid to workplace specifics, particularly in the healthcare sector, and no studies have addressed such specifics simultaneously and synthetically. The findings indicate that improvements in the following workplace conditions may enhance nurses' provision of quality and safe patient care: workload management, psychological protection and engagement, and physical safety. These findings offer insights to practitioners, suggesting several evidence-based interventions for improving the work environment of nurses in healthcare settings. The National Standard of Canada for Psychological Health and Safety in the Workplace (the Standard) and a corresponding assessment tool, the Guarding Minds at Work (GM@W), were developed to foster awareness and promote action for addressing the negative psychosocial factors that are present in the workplace. A comprehensive instrument evaluation facilitated the development of a validated and globally applicable measure of workplace conditions that considers several important domains. The existing evidence suggests that the surveyed work environment creates a threatening and burdensome situation for patient care professionals. It reveals that nurses' workload management, psychological protection and engagement, and physical safety are the most important determinants of quality and safe patient care in units. Collectively, overall workplace conditions have a substantial impact on nurse-related patient care outcomes. This study emphasizes that in order to excel the quality and safeness of patient care, clinical units should prioritize workplace-specific interventions, particularly those of systematic nature and using the newest techniques (Havaei et al., 2022).



References:

1. Havaei, F., Ryan Ji, X., & A. Boamah, S. (2022). Workplace Predictors of Quality and Safe Patient Care Delivery Among Nurses Using Machine Learning Techniques. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
2. Aiman Halawani, L., Aiman Halawani, M., & Mohammed Beyari, G. (2021). Job satisfaction among Saudi healthcare workers and its impact on the quality of health services. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
3. M Maassen, S., Marie J W Weggelaar Jansen, A., Brekelmans, G., Vermeulen, H., & J van Oostveen, C. (2020). Psychometric evaluation of instruments measuring the work environment of healthcare professionals in hospitals: a systematic literature review. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
4. Van Bogaert, P., van Heusden, D., Timmermans, O., & Franck, E. (2014). Nurse work engagement impacts job outcome and nurse-assessed quality of care: model testing with nurse practice environment and nurse work characteristics as predictors. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
5. Al-hamdan, Z., Manojlovich, M., & Tanima, B. (2017). Jordanian Nursing Work Environments, Intent to Stay, and Job Satisfaction. [\[PDF\]](#)
6. M. Nelson, A. (2011). Nurses' job satisfaction in the work environment. [\[PDF\]](#)
7. Maria Pimenta Lopes Ribeiro, O., Maria Oliveira Coimbra, V., Cristina de Abreu Pereira, S., da Conceição Alves Faria, A., João Figueiredo Cabral Teles, P., & Gomes da Rocha, C. (2022). Impact of COVID-19 on the Environments of Professional Nursing Practice and Nurses' Job Satisfaction. [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/)
8. A. Abdou, H., Ali Alalawi, F., Ali Abdulsalam, E., & Ali Alzahrani, T. (2019). Effect of Perceived Nursing Work Environment on Nurses Job Outcomes at Primary Health Care Centers – Jeddah. [\[PDF\]](#)