

Occupational Pressures of Medical and Nursing Staff and their Impact on the Extent of Medical Errors in government hospitals in the Najran Region

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Abstract: The study aimed to clarify occupational pressures of Medical and Nursing Staff and their Impact on the Extent of Medical Errors in government hospitals in the Najran region. The study adopted qualitative method, where the study used descriptive and analytical approach to describe occupational pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region. The study used a questionnaire as a tool, which applied to (300) individuals of Medical and Nursing Staff in government hospitals in the Najran region. The study results showed that there is a high degree of appreciation for occupational pressures in government hospitals in the Najran region, where this is due to the efficiency of its dimensions. The study found that Lack of career growth opportunities was in the first rank, in the second rank came difficult work environment, and in the third rank was Role Struggle. In addition, the fourth rank was for Work Load, while Role Ambiguity was at last rank, where all these dimensions were at a high level of appreciation. The study also found a significant relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region. In light of the results, the study recommended seeking to reduce medical errors in hospitals in KSA.

Keywords: occupational pressures, Medical Errors, government hospitals in the Najran region.

Introduction:

The health sector has an importance in the lives of societies, so that health services have become one of the most important indicators that indicate the progress of societies; the higher the quality of health services, the greater and better the value of society becomes (Benamara, 2022).

The most notably obstacle that facing the health sector and health institutions is job pressures which reduce and frustrate the performance of the medical and nursing staff in these institutions. Job pressures express harmful physical and emotional responses that occur when job requirements do not match the capabilities, resources, or needs of the medical or nursing staff in health institutions (Lee et al, 2019).

According to Athamneh and Abd al-Ghani (2021), medical and nursing staff in health institutions suffer from great pressure as a result of working for long hours in order to provide health and humanitarian services, especially in critical health situations, as well as working during holidays and night shifts keep them away from the pace of social life, all of which makes the medical and nursing staff dissatisfied and unsure about their job, which has negative effects that are reflected in their efforts; their psychological and functional compatibility and the quality of health care provided, which may sometimes result in the occurrence of medical errors.

On the other hand, medical errors are considered as errors that occur for several reasons;

including lack of experience or competence by the medical and nursing staff, or as a result of increased work pressures on the medical and nursing staff, or as a result of an emergency situation that requires speed at the expense of accuracy, or as a result of the complex nature of treatment (Mohammed, 2022).

Hence, the current study seeks to identify the occupational pressures of the medical and nursing staff and their impact on the size of medical errors by applying in government hospitals in the Najran region.

Study Problem:

Workloads considered as one of the important problems that researchers pay great attention to by studying it and knowing its consequences, especially with regard to quality in providing health service, as the low efficiency and quality of service causes damages that may lead to touch patient's life and human safety.

Medical errors are among the problems that cause great risks and consequences, such as cases of disability or death, not to mention the moral damage caused to feelings and emotions as a result of these medical errors. According to (Rodziewicz, et.al, 2021) it is difficult to identify a certain cause of medical errors.

Therefore the current study examines the most important cause of medical errors, and the problem of the current study determines in identifying Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region.

Study Questions:

1. What is the level of the factors of occupational pressure (Role conflict, role burden, role ambiguity, difficult work environment, lack of career growth opportunities) that workers are exposed to in Government Hospitals in government hospitals in the Najran region?
2. What is the extent of medical errors in government hospitals in the Najran region?
3. What is the impact of occupational pressures on Extent of Medical Errors in government hospitals in the Najran region?

Study Importance:

The current study has an applied (practical) importance and theoretical (academic) importance as the following:

First: Applied Importance:

The applied importance of this study represents in increasing of occupational pressures on workers in government hospitals in the Najran region. The current study that would spot a light on the personal and institutional damages that related to occupational pressures. As well as municipalities and their workers indicate to improve the quality of health services and reducing the medical errors by searching Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region.

Second: Academic Importance:

The importance of the research from the scientific point of view is its originality, as it is one of the few studies that deal with its subject Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region. The current studies may constitute a modern and important scientific material in the local and Arab administrative scientific library, and constitute a starting point for conducting studies and research starting from the results of the current study.

Study Objectives:

The study seeks to achieve the following objectives:

- 1) Identifying the level of occupational pressures that workers exposed to in government hospitals in the Najran region.
- 2) Identifying the level of medical errors in government hospitals in the Najran region.
- 3) Clarifying Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region.

Study Limitations:

Determined in the subject of the impact of occupational pressures on the job satisfaction of employees, and include the following limits:

- a) **Time limits:** the current study cover the period of 2022.
- b) **Place limits:** in government hospitals in the Najran region.
- c) **Human limits:** a sample of workers in government hospitals in the Najran region.

Study Definitions:

Occupational Pressures: are the level or degree to which the worker within the medical or nursing staff feels nervous and uncomfortable about the situations he is exposed to; depending on the sources of occupational pressures (Benamara, 2022).

Role Conflict: is what happens when there is a conflict between the different roles that a person plays in some cases, the conflict is the result of conflicting obligations that lead to a conflict of interest, or when a person has roles with different statuses. Role conflict also occurs when people disagree about the responsibilities that should be for a specific role of performing the job (Crosman, 2019).

Role Ambiguity: is a lack of information that necessary to perform the expected role of the individual, and it occurs when the goals, tasks, competencies and work requirements are vague and unclear, which leads the person to feel that he out of control over his work, which increases the pressure (Sideeq et al., 2022).

Work Load: is exhaustion of energy, exhaustion and fatigue resulting from the performance of work or from the time required to carry out a certain amount of work or the amount of work performed (performance) (Saoudi, 2021).

Medical Errors: are the deviation of the medical authorities from the duties imposed on them and their failure to perform them correctly, due to the apparent neglect and lack of vigilance while dealing with the patient and his health condition and the failure to preserve his rights (Taleb, 2021).

Study Hypotheses:

Main Hypothesis

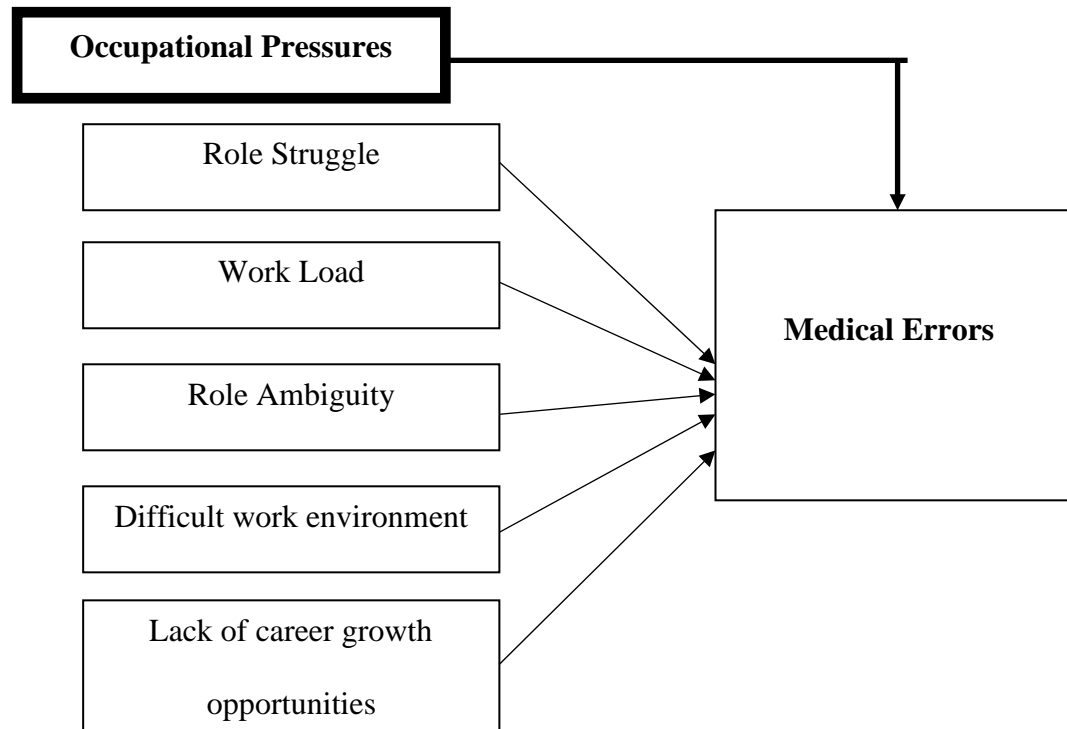
H0: There is a significant relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region.

Sub Hypothesis:

- 1) H01: There is a significant relationship between role struggle and Medical Errors in government hospitals in the Najran region.
- 2) H02: There is a significant relationship between work load and Medical Errors in government hospitals in the Najran region.

- 3) H03: There is a significant relationship Role ambiguity and Medical Errors in government hospitals in the Najran region.
- 4) H04: There is a significant relationship between Difficult work environment and Medical Errors in government hospitals in the Najran region.
- 5) H05: There is a significant relationship Lack of career growth opportunities and Medical Errors in government hospitals in the Najran region.

Study Model:



Source: prepared by the researcher based on previous studies

Literature Review:

Nursing Workload

In the context of changing factors of the nature of work where the environment is increasingly pressured and unstable, workers are at risk of facing increasing occupational stress, which is an imbalance between requirements and ability to work, and it takes various physically and emotional forms (Ngoc et al., 2020).

Occupational stress and pressure is a reaction to several negative conditions related to work content, work organizing and working environment. As well as it refers to responses that affect emotionally and physically that occur when job demands do not match the resources, capabilities and needs of an employee (Chatzigianni et al., 2018).

There are many stress factors that affect the performance of the employees, included not limited: digestive problems, emotional instability, uncooperative attitudes, and feelings of inability to cope, high blood pressure, disturbed sleep, nervousness and

tension, chronic worry. Such factors lead to lower work efficiency of any individual (Aditi and Rishu, 2020).

Occupational pressures are occurring among various professions and institutions worldwide, and these kind of pressure considered as a major problem in healthcare sector especially among nurses (Dighe, 2020).

However, workers in health care institutions are affected by emotional conditions and stress because of their tough work environment. In health care, employee job stress can have a negative impact on the quality of patient care and affects the quality of work and individual productivity (Abdul Salam, 2016).

The first attempt to assess and evaluate occupational pressure in health care professionals and nurses was on 1960. When Menzies identified four sources of anxiety among nurses: patient care, decision making, taking responsibility and change. Which means that nursing is considered one of the most stressful professions particularly for nurses who are working in acute and specialized care units. As well as stress in nursing is attributed to the central to the work nurses do (Mokhtar et al., 2016).

According to Poursadeghiyan et al. (2016), Nurses constitute the largest employees group in the health care sector and they play an important role in the quality of care services and patients' satisfaction of provided health care services.

Thus, workload affects the quality of the healthcare provided for the patients which in return affects their safety, and increases the risk for occurring mistakes and decreasing the quality of care, the increased workload also has an impact that results job dissatisfaction which leads to poor performance and low quality of the provided services (Almenyan et al., 2021).

In addition, the high job demands and the combination of too much responsibility and too little authority have been identified as some of the primary sources of occupational stress amid nursing staff. Thus nursing is perceived as an active job with high and complicated demands and situations (Sarafis et al., 2016).

Nurses suffered of stress in high levels especially who working in rehabilitation and psychiatric departments where nurses provide care for patients with special conditions and cases, which has psychosomatics effects (Khammar, 2019).

Ribeiro et al. (2018) indicated that the experiences and situations that nurses and medical stuff that work in hospitals that lead to stress. Some of these situations are that nurses are dealing routinely with pain, suffering and death, and are subjected to intense work rhythm, long hours, shift work, low wages, complex human relations, lack of materials and human resources.

Therefore, job pressure of nurses represented in all the activities that nurses do while on duty in a nursing service unit. However, workloads of nurses are required to have high expertise in carrying out nursing practice, the speed at work and high work volume (Martinaningtyas, 2020).

Workload and pressure in nursing and healthcare institutions related to the time, work, and the available resources may be: employees, time, money, or the materials needed to ensure the achievement of any task (Diaz and Danvers-Perez, 2018).

There are 4 categories of nursing workload (Unit level, Job level, Patient level and Situational level), Kaur and Gujral (2017) describe these categories as the following:

Workload at Unit Level: the most used measurement in this level is nurse patient ratio. In relation to nursing staffing it can be used to compare units and their patient

outcomes; it conceptualizes nursing workload at macro level which is the major weakness of this research.

Workload at Job Level: workload in this level measured by examining the impact of workload on among (ICU) nurses on burnout and performance. This examination done by Schaufeli and LeBlanc. Also in this level, the type of specialty or nursing job the workload level depends.

Workload at Patient Level: the focus of workload in this level is on the patient's clinical condition, and it is used in the literature books of nurses and it is not considering the other factors like infrastructure, organizational policies, complexities etc.

Situational Level Workload: this level is multidimensional, and it works at the microsystem, works on availability of supplies, stock in hand, work environment, communication between health care workers, family members of the patient, multidisciplinary members of the health care organization, infrastructure etc.

Workload in nursing presented from three perspectives, the first perspective represents management that sees workload is controlled through nurse staffing and involves patient-to-nursing staff ratios, hours of direct patient care and overtime use, the second perspective represents nurses that see workload is including psychosocial and physical factors related to the organization, patient characteristics, cognitive burden, in addition to encompasses the variables of staffing and work interruptions and perceptions of adequacy of resources and quality of care, the third perspective represents patients which includes acuity of illness, dynamic patient events like rapid responses and transporting patients for procedures, patient dependency, patient age and weight, number of medication doses per day, and overall complexity of care (Waterfield and Barnason, 2022).

However, there are barriers to the relationship between nurses and patients, and these barriers from the point of view of nurses are: the lack of nurses, lack of sufficient time, and lack of patient awareness (Ebrahimi et al., 2017).

On the other hand, the problem in the work environment of nursing occupationally stress gains importance in the light of increasing staff shortages and insufficient support from colleagues and other employers (Kwiecień-Jaguś, 2018).

Stress among nurses and medical staff affects their work quality and efficiency, as a special professional group; nurses carry the important job of saving lives and promoting health. Which means that their working conditions and working ability can have a direct influence on the lives and safety of patients (Li et al., 2021).

Medical Errors

Performance of nurses that working in pressure conditions and situations may affect their quality and efficiency in various forms. Medical errors is one of the most critical form of low performance quality, because it could be end a life of person (Worringer et al., 2020).

According to Cebeci et al. (2015) number and distribution of medical errors might vary in different settings. Therefore, the consequences for the patient might also vary according to the nature of error, the medical error might range from minor uncomfortable pain to temporary disability or even death.

However, the challenge in controlling the medical errors and reducing their number is that medical errors occur at every stage of the medication preparation and distribution process (Cloete, 2014).

In order to deal with medical errors, it is important to identify the major reasons that facing nurses during their job. Stress due to working conditions and heavy workload in

nursing play role in paving the way for medical errors in the occurrence of insufficiency and negligence in professional practices, e.g. nurses being busy with something else while administering a drug (Özyer et al., 2020).

As well as, it is important to identify what “medical errors” are, Bam et al. (2021) define medical error as “an act of omission or commission in planning or execution of care that contributes or could contribute to an unintended result”.

In medical errors the patient is hurt, that is, one of the factors that cause these errors is less visible. Thus, the essence of medical errors definition is wide and includes errors of the health care team, errors of personnel even the defect in health equipment (Nezamodini et al., 2016).

World Health Organization (WHO) classified causes of medical errors in groups of factors depending on the reasons as a following (2016):

Factors associated with health care professionals:

- Lack of therapeutic training.
- Inadequate drug knowledge and experience.
- Inadequate knowledge of the patient.
- Inadequate perception of risk.
- Overworked or fatigued health care professionals.
- Physical and emotional health issues.
- Poor communication between health care professional and with patients.

Factors associated with patients:

- Patient characteristics (e.g., personality, literacy and language barriers). Complexity of clinical case, including multiple health conditions, poly-pharmacy and high-risk medications.

Factors associated with the work environment:

- Workload and time pressures.
- Distractions and interruptions (by both primary care staff and patients).
- Lack of standardized protocols and procedures.
- Insufficient resources.
- Issues with the physical work environment (e.g., lighting, temperature and ventilation).

Factors associated with medicines:

- Naming of medicines.
- Labelling and packaging.

Factors associated with tasks:

- Repetitive systems for ordering, processing and authorization.
- Patient monitoring (dependent on practice, patient, other health care settings, prescriber).

Factors associated with computerized information systems:

- Difficult processes for generating first prescriptions (e.g. drug pick lists, default dose regimens and missed alerts).
- Difficult processes for generating correct repeat prescriptions.
- Lack of accuracy of patient records.
- Inadequate design that allows for human error.

Primary-secondary care interface:

- Limited quality of communication with secondary care.
- Little justification of secondary care recommendations.

Based on the previous factors, we can notice that there are many and various forms of medical errors. Alrabadi et al. (2021) indicated that medication errors are one of the main branches of medical errors, which is related to providing nurses the medicine dose to the patients.

Occurring medication errors related to conditions represented in the lack of experience of nurses, especially when they were students they do not get sufficient supervision from senior nurses in the hospital and have not been equipped with proper medication safety education (Musharyanti et al., 2019).

Kohen et al. (2016) indicate that nurses have a major role in handling and reducing the occurrence of medical errors, because they are the health care professionals who most frequently report errors. When nurses make, discover, or observe an error during practicing their routinely job, they must decide whether or not to make a formal report.

In addition, nurses are at higher risk of committing medication errors due to they are the largest group of health care staff fundamentally dealing with medication orders and spending more time with the patients (Kaboodmehri et al., 2019).

On the other hand, there are some actions that should be implemented in order to prevent medical errors, according to Hammoudi et al. (2017) these actions are: teamwork improving, and all healthcare settings should emphasis awareness of the

culture of safety, as well as provide support and guidance to nurses and improve communication skills.

Implementing strategies of risk-reduction will effectively address the underlying cause of error and impact as many steps of the medication-use process as possible, which leads to: prevent errors, make errors visible and mitigate the harm if an error occurs (Billstein-Leber et al., 2018).

As well as, there is a main role of administrations and managers in dealing and reducing medical errors, managers need to address the workload issues with regard to the real nature of nursing work; which may increase nurses' productivity, nurses' satisfaction, turnover, work stress and provide sufficient staffing to patient care needs (Alghamdi, 2016).

Previous Studies:

Al-Ameen (2022) The Impact of Managing Work Stress on the Performance of Health Workers in Light of the COVID-19 Pandemic

The study aimed to identify the levels of work stress and job performance, as well as the nature of the relationship the work stress of employees and job performance. The study used the descriptive analytical method and used the questionnaire as a tool for data collection, which was distributed to a sample of (55) employees working in the Al- Zahrawi Hospital Institution in Msila in Algeria. Data analyzed by (SPSS) in order to get results. The study reached several results, the most important of which is that work stress has an impact on the performance of workers in the health institution. The study recommended the need to reduce work stress by improving work conditions and job characteristics.

Ghasemi et al. (2022) Analysis of occupational accidents among nurses working in hospitals based on safety climate and safety performance: a Bayesian network analysis

The study aimed to analyze causal relationships between dimensions of safety climate and performance, and occupational accidents for nurses working in hospitals. Data were gathered from questionnaires filled in by nurses from three public hospitals of (211) nurses in total and they were female and married, and a Bayesian network (BN) analysis was conducted to analyze interactions among variables. The results showed that 39.3% of nurses experienced occupational accidents during the last 12 months before conducting the study, less than half of the nurses had an acceptable safety performance and safety participation had the highest influence on occupational accidents, followed by safety compliance, as well as reporting of errors had the highest score among the safety climate dimensions, in addition, the effect of safety participation on occupational accidents among nurses was higher than that of safety compliance. Hence, training of nurses was necessary for improving both safety compliance and safety participation, and thereby reducing occupational accidents.

Athamneh and Abd al-Ghani (2022) The Impact of Workplace Stress on the Job Commitment of Nurses at Jordanian University Hospitals

The study aimed to identify the impact of work stress on job commitment in university hospitals in Jordan. The study conducted the descriptive analytical method, and used questionnaire to collect data. The sample included (264) nurses working at university hospitals in Jordan (King Abdullah University Hospital and University of Jordan Hospital). The study found several results, the most important of which is the presence of a high level of work pressures that nurses are exposed to in university hospitals in Jordan, and a high level of continuous commitment among nurses, as well

as the nurses in Jordanian university hospitals have a medium level of emotional and normative commitment. The study recommended the need to work seriously on controlling workplace stress among nurses and reducing it by giving the nurses the needed rest time.

Said and El-Shafei (2021) Occupational stress, job satisfaction, and intent to leave: nurses working on front lines during COVID-19 pandemic in Zagazig City

The study aimed to evaluate job stress, job satisfaction and intent to leave among nurses dealing with patients with suspected COVID-19. A comparative cross-sectional study was conducted among (210) nurses from Zagazig Fever Hospital (ZFH) which is one of COVID-19 Triage Hospitals (Group I) versus (210) nurses from Zagazig General Hospital (ZGH) (Group II) which is neither triage nor isolation hospital; dealing only with suspected COVID-19 patients in emergency at Sharkia Governorate, Egypt. The assessment was done through online questionnaire formed of the Expanded Nursing Stress Scale, the McCloskey/Mueller Satisfaction Scale, and questionnaire assessing specific COVID-19-associated stressors and nurses' intent to leave. Results showed that 3/4 of nurses (75.2%) in (ZFH) had high stress level versus 60.5% in (ZGH). Workload (98.6%), dealing with death and dying (96.7%), personal demands and fears (95.7%), employing strict biosecurity measures (95.2%), and stigma (90.5%) represented the highest priority stressors in (ZFH), while exposure to infection risk (97.6%) was the stressor of highest priority among (ZGH) according to Pareto analysis. More than half of nurses (51.0%) in (ZFH) reported low satisfaction level versus 41.9% in (ZGH). Only 4.8% of nurses in ZFH definitely had no intent to leave their present job. Type of hospital and its related workload were the most significant predictor of all the studied outcomes.

Hasan (2019) Effect of Work Stresses on the Performance of the Working Staff at the Iraqi Hospitals: A Case Study of Directorate of Fallujah Teaching Hospital, Iraq (2018)

The study aimed to identify the reflection of the effect of the work stresses on the performance of the working staff in the Directorate of Fallujah Teaching Hospital; identifying the relationship between the causes of stresses (internal and external) and job performance. The study conducted the descriptive analytical method, and used the questionnaire as a tool for data collection. The sample of the study includes (100) of the working staff in the Directorate of Fallujah Teaching Hospital. The study results showed that the working staff in Fallujah Teaching Hospital suffer from work stresses and work circumstance that are unhelpful in performance and there is a conflict among roles assigned to the working staff and unclear terms of references and responsibilities and there is no growth and progress in work. The study recommended the concern with the work environment (ventilation system – room capacity), provision of all facilities that assist in work performance, specifying task and assignments for each employee according to his qualifications.

Yang et al. (2017) Validation of work pressure and associated factors influencing hospital nurse turnover: a cross-sectional investigation in Shaanxi Province, China

The study aimed to examine the work pressure and associated factors influencing the nurses' intent to leave. The sample was (800) employed registered nurses with less than 1 year of work experience. A cross-sectional questionnaire-based survey with multistage sampling was conducted and Chi-square test and multi-factor logistic regression were applied to attain the relative comparisons. Sub-group analysis was conducted to explore the different turnover intention patterns in different age groups.

The results showed that Nurses' turnover intentions were associated with stress, age, job duty, and career commitment in Shaanxi Province and the intent to leave is dynamically multifactorial. The study recommended the need of effective managements and supportive strategies are needed to reduce the nurses work stress accordingly.

Methodology

This study based on qualitative method. the study uses descriptive and analytical approach to describe Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region.

Population and Sample:

The study population includes all Medical and Nursing Staff in government hospitals in the Najran region, The study tool will be distributed electronically to a sample consists of (300) individuals of the study Population.

Methods of Collecting Data

The study relied on two types of data: primary and secondary data, whereas secondary data will be represented by the theoretical and field previous studies, as well as books and research on the subject under study in order to develop the theoretical framework and the goal of dimensions that measure "Occupational Pressures of Medical and Nursing Staff and Their Impact on the Extent of Medical Errors in government hospitals in the Najran region".

The primary data were represented by the development of a questionnaire to measure the variables and dimensions and study hypotheses.

Questionnaire Design:

A five-point likert scale questionnaire will be use as a tool to measure the dimensions of study variables based on the following values:

- Strongly Agree: (5) points
- Agree: (4) points
- Neutral: (3) points
- Disagree: (2) points.
- Strongly Disagree: (1) point.

Criterion:

To explain the arithmetical averages of the estimates of the individuals of the study sample on each paragraph of the questionnaire and on each of its fields. The following criterion was used: $(\text{the upper limit (5)} - \text{the minimum (1)}) / \text{the number of categories}$
(3) the length of the class is (1.333). Based on this, the following criterion was adopted: Low Level mean = 1-2.333, Moderate Level mean= 2.344- 3.677, and Mean= 3.68-5 considers high Level of estimation.

The following tables present the arithmetic mean, standard deviation for the study dependent and independent variable:

Table (1)
Statistical standard for the interpretation of the arithmetical averages of the resolution paragraphs and their variants

| Mean | Estimation level |
|--------------|------------------|
| 1-2.333 | Low |
| 2.344- 3.677 | Moderate |
| 3.68-5 | High |

Reliability Test:

The Reliability Test, which is the calculation of the Cronbach-Alpha coefficient, will be tested to verify the internal consistency of the fields included in the questionnaire as a measuring tool, where a value ranges between (1-0) and its value is acceptable at (%60) and above (Sekaran & Bougie, 2014). Table (2) shows the test results as follows:

Table (2) Reliability Test

| Variable | | Paragraphs No. | Cronbach's Alpha |
|--|-------------------------------------|----------------|------------------|
| 1 | Role Struggle | 5 | 90.1% |
| 2 | Work Load | 5 | 85.4% |
| 3 | Role Ambiguity | 5 | 83.7% |
| 4 | Difficult work environment | 5 | 85.1% |
| 5 | Lack of career growth opportunities | 5 | 82.6% |
| Dependent variable medical errors | | 7 | 80.5% |
| Total | | 32 | 95.5% |

Source: prepared by the researcher based on the field study

Table (2) indicates a high reliability of all study variables and the total in general, as the value of (Cronbach-Alpha) was more than the value (60%) for each variable and for all variables of the study scale.

Data analysis

"SPSS" software will be used with the aim of analysis, including: 1 - Cronbach's alpha Test.

2 - Descriptive Statistics. To express the opinions of the study sample members about the paragraphs and axes of the study

3- Regression. To test the hypotheses of the study

Results:

Description the study sample characteristics:

The frequencies and percentages of the study sample characteristics were found as follows:

Table (3) Samples characteristics

| The Characteristics | | Frequency | Percent % |
|-----------------------|--------------|------------|--------------|
| Gender | Male | 255 | 87.9 |
| | Female | 35 | 12.1 |
| | Total | 290 | 100.0 |
| Age | >20 | 27 | 9.3 |
| | 20-30 | 111 | 38.3 |
| | 30-40 | 123 | 42.4 |
| | <40 | 29 | 10.0 |
| | Total | 290 | 100.0 |
| Work Experience Years | >5 years | 53 | 18.3 |
| | 5-10 years | 119 | 41.0 |
| | 10-15 years | 52 | 17.9 |
| | <15 years | 66 | 22.8 |
| | Total | 290 | 100.0 |

Source: prepared by the researcher based on the field study

Table (3) shows that most of the study sample members were male (87.9%), while female represented (12.1%) of the study sample.

Table (3) also shows that (42.4%) of the study sample's ages was (30-40 years old), while (38.3%) of the study samples have (20-30 years old). However, (10%) of the study samples have (more than 40 years old), while (9.3%) of the study samples have (less than 20 years old).

In addition, table (1) Shows that (41%) of the samples have (5-10 years) experience, (22.8%) of the samples have (more than 15 years) experience, and (18.3%) of the study sample have (less than 5 years) experience. Whereas (17.9%) of the study sample have (10-15 years) experience.

The Independent Variable: Occupational Pressures:

Independent variable consists of five variables (Role Struggle, Work Load, Role Ambiguity, Difficult work environment, and Lack of career growth opportunities). Table (4) indicates the arithmetic means and standard deviations for each variable of Occupational Pressures, where each variable were arranged descending according to the degree of appreciation based on the arithmetic means as follows:

Table (4) Means and Std. Deviation of Occupational Pressures variables

| No. | Statement | Mean | Std. Deviation |
|-----|-------------------------------------|-------|----------------|
| 5 | Lack of career growth opportunities | 4.126 | 0.916 |
| 4 | Difficult work environment | 4.095 | 0.985 |
| 1 | Role Struggle | 4.025 | 0.972 |
| 2 | Work Load | 3.953 | 1.016 |
| 3 | Role Ambiguity | 3.860 | 1.029 |

| | | |
|----------------|--------------|--------------|
| Average | 4.012 | 0.984 |
|----------------|--------------|--------------|

Source: prepared by the researcher based on the field study

Table (4) indicates the attitudes of the sample towards questionnaire statements of Occupational Pressures; Arithmetic mean (4.012), S.t (0.984) (high appreciation).

The table noted that the first rank in Occupational Pressures was “Lack of career growth opportunities” with mean reach (4.126) Std. (0.916) at high degree of appreciation. Next was “Difficult work environment” with mean reach (4.095) Std. (0.985) at high degree of appreciation. In the third rank came “Role Struggle” with mean reaches (4.025) Std. (0.972) at high degree of appreciation. Next was “Work Load” with mean reach (3.953) Std. (1.016) at high degree of appreciation. The last rank was for “Role Ambiguity” with mean reach (3.860) Std. (1.029) at high degree of appreciation.

The Dependent Variable: Medical Errors:

To identify the dependent variable “Medical Errors”, Means and Std. Deviation were applied, where table (5) shows the results:

Table (5) Means and Std. Deviation of the dependent variable “Medical Errors”

| No. | Statement | Mean | Std. Deviation | Rate |
|----------------|---|--------------|----------------|-------------|
| 26 | Medical errors happen in the hospital. | 3.724 | 0.970 | High |
| 27 | One of the main causes of medical errors is misdiagnosis. | 3.652 | 0.994 | Moderate |
| 28 | One of the main causes of medical errors is performing a surgical procedure on the wrong side of the body. | 3.541 | 0.892 | Moderate |
| 29 | One of the main causes of medical errors is missing important test results because the doctor or nurse sleeps for a short period after caring for a critically ill patient. | 3.672 | 0.981 | High |
| 30 | One of the main causes of medical errors is giving patients the wrong medication or the wrong dose. | 4.010 | 0.911 | High |
| 31 | One of the most important causes of medical errors is giving patients a drug that they are allergic to. | 3.820 | 1.018 | High |
| 32 | One of the main causes of medical errors is the lack of close monitoring of critically ill patients. | 3.386 | 0.979 | Moderate |
| Average | | 3.687 | | High |

Source: prepared by the researcher based on the field study

Table (5) indicates the attitudes of the sample towards questionnaire statements of the dependent variable “Medical Errors”; Average mean (3.687) (High appreciation).

Table (5) noted that the dependent variable “Medical Errors” means ranged [3.386- 4.010], where the rating ranged from moderate to high appreciation. The results showed that paragraph (30) has the highest level of appreciation, which stated “One of the main causes of medical errors is giving patients the wrong medication or the wrong dose”, with mean reached (4.010), Std. Deviation (0.911) at high level of appreciation. Paragraph (32), was at the lower level which stated, “One of the main causes of medical errors is the lack of close monitoring of critically ill patients”, where the mean was (3.386) Std. Deviation (0.979) at moderate level of appreciation.

The study hypotheses Test:

The Main Hypothesis:

H0: There is a significant relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region.

To test this hypothesis, multi regression used to find out if there is a statistically relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region at significance level ($\alpha \leq 0.05$).

Model Summary:

Table (6) Model Summary main hypothesis

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .669 ^a | .447 | .437 | .49102 |

a. Predictors: (Constant), opportunities, Struggle, Ambiguity, environment, Load
Source: prepared by the researcher based on the field study

Table (6) shows the value of the Regression coefficient between the independent & dependent variable, reaching its value (0.669) as shown, the value of the coefficient of determination (R^2) reaches value of (0.447), which indicates that (44.7%) of changes in dependent variable caused by independent variables.

Table (7) represents the results of analysis of Occupational Pressures and Medical Errors to test the significance of regression model:

Table (7) ANOVA^a Occupational Pressures and Medical Errors

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|-----|-------------|--------|-------------------|
| 1 Regression | 55.347 | 5 | 11.069 | 45.911 | .000 ^b |
| Residual | 68.473 | 284 | .241 | | |
| Total | 123.820 | 289 | | | |

a. Dependent Variable: errors

b. Predictors: (Constant), opportunities, Struggle, Ambiguity, environment, Load
Source: prepared by the researcher based on the field study

Table (7) analysis of variance, which aims to identify the explanatory model of independent variable Occupational Pressures and Medical Errors through examined (F).

The Examined (F) value was equal to (45.911) with possibility value (0.00) which is lower than the specific value (0.05), and that shows that there is a significant relationship exists at significance level ($\alpha \leq 0.05$).

Therefore, we reject the null hypothesis and accept the alternative:

i.e., There is a significant relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region.

Thus, it can be said that at least one variable of independent variables could have significant relationship with dependent variable, and this is determined by a significant multiple regression test equation coefficients.

Multivariate Regression Morality:

Table (8) shows the values of the regression coefficients and the statistical tests.

Table (8) Coefficients Multiple Regression between the independent variables and Medical Errors

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| (Constant) | 1.245 | .179 | | 6.972 | .000 |
| Role Struggle | .073 | .060 | .092 | 1.220 | .223 |
| Work Load | .116 | .074 | .142 | 1.568 | .118 |
| Role Ambiguity | -.138 | .070 | -.170 | -1.982 | .048 |

| | | | | | |
|-------------------------------------|-------|------|-------|--------|------|
| Difficult work environment | -.184 | .065 | -.220 | -2.828 | .005 |
| Lack of career growth opportunities | .722 | .068 | .779 | 10.628 | .000 |

a. Dependent Variable: errors

Source: prepared by the researcher based on the field study

Sub Hypothesis:

H01: There is a significant relationship between role struggle and Medical Errors in government hospitals in the Najran region.

The table (8) indicates that role struggle have not a statistically significant relationship with Medical Errors in government hospitals in the Najran region, where the calculated value of (T) was (1.220), which is lower than its tabular value (1.962) at significance level (0.223), which is more than the specific value (0.05).

Therefore, we reject the alternative hypothesis and accept the null:

i.e., There is no significant relationship between role struggle and Medical Errors in government hospitals in the Najran region.

H02: There is a significant relationship between work load and Occupational Pressures and Medical Errors in government hospitals in the Najran region.

The table (8) indicates that work load have not a statistically significant relationship with Medical Errors in government hospitals in the Najran region, where the calculated value of (T) was (1.568), which is lower than its tabular value (1.962) at significance level (0.118), which is more than the specific value (0.05).

Therefore, we reject the alternative hypothesis and accept the null:

i.e., There is no significant relationship between work load and Medical Errors in government hospitals in the Najran region.

H03: There is a significant relationship between Role ambiguity and Medical Errors in government hospitals in the Najran region.

The table (8) indicates that Role ambiguity have a statistically significant relationship with Medical Errors in government hospitals in the Najran region, where the calculated value of (T) was (1.982), which is more than its tabular value (1.962) at significance level (0.048), which is lower than the specific value (0.05).

Therefore, we reject the null hypothesis and accept the alternative:

i.e., There is a significant relationship between Role ambiguity and Medical Errors in government hospitals in the Najran region.

H04: There is a significant relationship between difficult work environment and Medical Errors in government hospitals in the Najran region.

The table (8) indicates that Difficult work environment have a statistically significant relationship with Medical Errors in government hospitals in the Najran region, where the calculated value of (T) was (2.828), which is more than its tabular value (1.962) at significance level (0.005), which is lower than the specific value (0.05).

Therefore, we reject the null hypothesis and accept the alternative:

i.e., There is a significant relationship between Difficult work environment and Medical Errors in government hospitals in the Najran region.

H05: There is a significant relationship between Lack of career growth opportunities and Medical Errors in government hospitals in the Najran region.

The table (8) indicates that Lack of career growth opportunities have a statistically significant relationship with Medical Errors in government hospitals in the Najran region, where the calculated value of (T) was (10.628), which is more than its tabular value (1.962) at significance level (0.00), which is lower than the specific value (0.05).

Therefore, we reject the null hypothesis and accept the alternative:

i.e., There is a significant relationship between Lack of career growth opportunities and Medical Errors in government hospitals in the Najran region.

Conclusion:

The study concluded that there is a high degree of appreciation for Occupational Pressures in government hospitals in the Najran region, due to the appreciation of its dimensions. The study found that Lack of career growth opportunities was in the first rank, in the second rank came difficult work environment, and in the third rank was Role Struggle. In addition, the fourth rank was for Work Load, while Role Ambiguity was at last rank, where all these dimensions were at a high level of appreciation.

In addition, the study concluded that Medical Errors was at a high level in government hospitals in the Najran region, where the study found that medical errors happen in the hospital. The study results showed that (giving patients the wrong medication or the wrong dose, missing important test results because the doctor or nurse sleeps for a short period after caring for a critically ill patient, and giving patients a drug that they are allergic to) are one of the main causes of medical errors.

Moreover, through testing the study hypotheses, the study concluded the following results:

There is a significant relationship between Occupational Pressures and Medical Errors in government hospitals in the Najran region.

From this result, the study showed the following:

- There is no significant relationship between role struggle and Medical Errors in government hospitals in the Najran region.
- There is no significant relationship between work load and Medical Errors in government hospitals in the Najran region.
- There is a significant relationship between role ambiguity and Medical Errors in government hospitals in the Najran region.
- There is a significant relationship between difficult work environment and Medical Errors in government hospitals in the Najran region.
- There is a significant relationship between lack of career growth opportunities and Medical Errors in government hospitals in the Najran region.

Recommendation:

The study recommends seeking to reduce medical errors in hospitals in KSA, by reducing occupational pressures focusing on the following points:

- 1) Providing qualified assistant staff to reduce the workload and job pressures for employees and workers at King Khalid Hospital in Majmaah.
- 2) Determine the employee's responsibility in specific duties at appropriate times, considering the emergence of sudden circumstantial tasks.
- 3) Work on the administrative approach to determine the tasks that are issued and avoid conflicting instructions so that the employee can complete them on time and that the volume of work is appropriate to avoid accumulation.

- 4) Empowering workers and qualifying them for new tasks in the event of a change or development in the work.
- 5) The need to find a fair and unbiased rewards system and not to monopolize incentives and rewards for certain people without giving others the opportunity.

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