

EXPLORING PATIENT'S SAFETY LEVELS AMONG NURSING PERSONNEL: CROSS  
SECTIONAL STUDYAfaf Farahat Shehatah<sup>1\*</sup>, Omima Abdel Shafy Halawa<sup>2</sup>, Amal Abd Elhaleem Farahat<sup>3</sup><sup>1</sup>Lecturer of Nursing Administration, Nursing College, Al- Rayan National Colleges, Al Madinah Al Munawwara, Saudi Arabia.<sup>2</sup>Assistant Professor of Medical Surgical Nursing, Nursing College, Al- Rayan National Colleges, Al Madinah Al Munawwara, Saudi Arabia.<sup>3</sup>Assistant Professor of Medical Surgical Nursing, Battterjee Medical College, Aseer, Saudi Arabia.**\*Corresponding Author: Afaf Farahat Shehatah**Lecturer of Nursing Administration, Nursing College, Al- Rayan National Colleges, Al Madinah Al Munawwara, Saudi Arabia. DOI: <https://doi.org/10.5281/zenodo.19508335>**How to cite this Article:** Afaf Farahat Shehatah<sup>1\*</sup>, Omima Abdel Shafy Halawa<sup>2</sup>, Amal Abd Elhaleem Farahat<sup>3</sup> (2026). Exploring Patient's Safety Levels Among Nursing Personnel: Cross Sectional Study. European Journal of Pharmaceutical and Medical Research, 13(4), 445-450.

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**ABSTRACT**

**Background:** Patient safety in health care is an urgent and serious global public health concern. It is a framework of organized activities that create cultures, processes, procedures, behaviors, technologies and environments in health care. **Purpose:** Assess the level of patients' safety among nursing personnel. **Design:** A descriptive design was used. **Setting:** The study was conducted at Menoufia University Hospital and Shebin Elkom Teaching Hospital in all departments. **Study sample:** A simple random sample of 550 nursing personnel were used in this study. **Data collection instruments:** Three instruments were used, instrument 1: Clinical Governance Awareness Questionnaire, 2: Professional Nursing Autonomy scale, 3: Patient Safety Questionnaire. **Results:** The majority of studied nurses reported a moderate level of patient safety. **Conclusion:** The majority of studied nurses reported a moderate level of patient safety.

**KEYWORDS:** Nursing Personnel, Patient's Safety.**INTRODUCTION**

Patient safety in health care is an urgent and serious global public health concern. Patient safety is defined as a framework of organized activities that create cultures, processes, procedures, behaviors, technologies and environments in health care. In addition, consistently and sustainably lower risks, reduce the occurrence of avoidable harm, make error less likely and reduce its impact when it occurs (World Health Organization, 2024).

The requirements of safety in health care organizations are clear policies, organizational leadership capacity, data to drive safety improvements. Skilled health care professionals and effective involvement of patients and families in the care process are all needed to ensure sustainable and significant improvements in the safety of health care (Wattenbarger, 2024).

The key components of patient safety are leadership which plays a critical role in setting the tone for patient safety. Hospital administrators must demonstrate a commitment to safety by allocating resources, supporting safety initiatives and modeling appropriate behaviors. Open and transparent communication is vital for identifying safety concerns by encouraging staff to speak without fear to ensure that adverse events and medical errors are reported and managed effectively (Soori, 2024).

A culture of safety is based on continuous learning improvement. Organizations should regularly assess safety performance by analyzing data and feedback. Healthcare providers can identify areas for improvement, set achievable goals and implement evidence-based strategies to enhance patient safety. Effective teamwork and collaboration across departments are crucial for maintaining a safe environment. Healthcare teams must

work cohesively. Engaging patients and their families in the care process is a powerful way to enhance safety. Also, Training programs and team-building activities can strengthen interprofessional relationships and enhance collective problem-solving capabilities and their autonomy (Chance, Florence & Abdoul, 2024).

### Importance of research

Patient's safety is the vision of all health care organizations worldwide due to the greatest impact on providing high standard of health care. It addresses one of the most fundamental responsibilities in healthcare by preventing harm to patients which leads to better outcomes, higher healthcare quality and stronger trust between patients and healthcare providers.

### RESEARCH OBJECTIVE

Assess the patient's safety levels among nursing personnel.

### MATERIALS AND METHODS

#### Research design

A descriptive research design was adopted for this study.

#### Setting

The present study was conducted at Menoufia University hospital and Shebin El-Kom teaching hospital in all inpatients departments.

#### Subjects

A simple random sampling technique was used to allocate the sample of this study from the above-mentioned settings. The total size was 540 nursing personnel.

#### Two tools were used to collect the necessary data

Tool I: Demographic characteristics of nurses included age, sex, position, educational level, years of experience, marital status.

Tool II: Patients' safety questionnaire which was adapted from (Singer, et al., 2003 and Ginsburg et al., 2005) to assess patients' safety level. It included 36 items which are classified into four main dimensions, namely, Safety at the organization and department (10 items), Fear of repercussions (8 items), Perceived state of safety (8 items) and Supervisory and leadership (10 items).

#### Scoring system

The nursing personnel's responses were scored on five points agree- disagree Likert scale with "not applicable" option as follows: (1) Strongly disagree, (2) disagree, (3) neutral (4) Agree, (5) Strongly agree. The scoring system is calculated using equal width intervals, the total score of this tool ranged from 36-180. Higher score indicated more safety. A score of > 75% 133-180 indicated a high level, a score of (50%-75%) 85-132 indicated a moderate level, and a score of <50% 36-84 indicated a low level (Almutairi & Alonazi, 2023).

### Administrative Design and Ethical Considerations

Before any attempt to collect data, an official approval letter was submitted to the Dean of the Nursing College to collect data from the pre-mentioned study setting, also written approval letters were submitted to the director of Menoufia University Hospital and Shebin El-Kom teaching hospital to collect data from the pre-mentioned study sample. The letter contained the title, aim of the study and methods of data collection. Data collection procedures, analysis and reporting of the findings were undertaken in a manner designed to protect confidentiality of sample.

The respondents' rights were protected by ensuring voluntary participation; so that informed consent was obtained by explaining the purpose, nature, time of conducting the study, potential benefits of the study and how data was collected. The respondents were assured that the data was treated as strictly confidential; furthermore, the respondents' anonymity was maintained as they weren't required to mention their names.

#### Statistical study

Data was coded and transformed into a specially designed form to be suitable for the computer entry process. It was entered and analyzed by using SPSS (Statistical Package for Social Science) statistical package version 26. Data was tested for normality using Kolmogorov-Smirnova and Shapiro-Wilk tests and found to be not normally distributed (table I), so nonparametric tests were used. Quantitative data were presented by mean (X) and standard deviation (SD). Mann Whitney and Kruskal-Wallis H tests were used to test differences between/ among groups. Qualitative data was presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ( $\chi^2$ ) test. However, if the expected value of any cell in the table was less than 5, Fisher Exact test was used (if the table was 4 cells), or Likelihood Ratio (LR) test (if the table was more than 4 cells). Level of significance was set as P value  $\leq 0.05$  for all significant tests.

### RESULTS

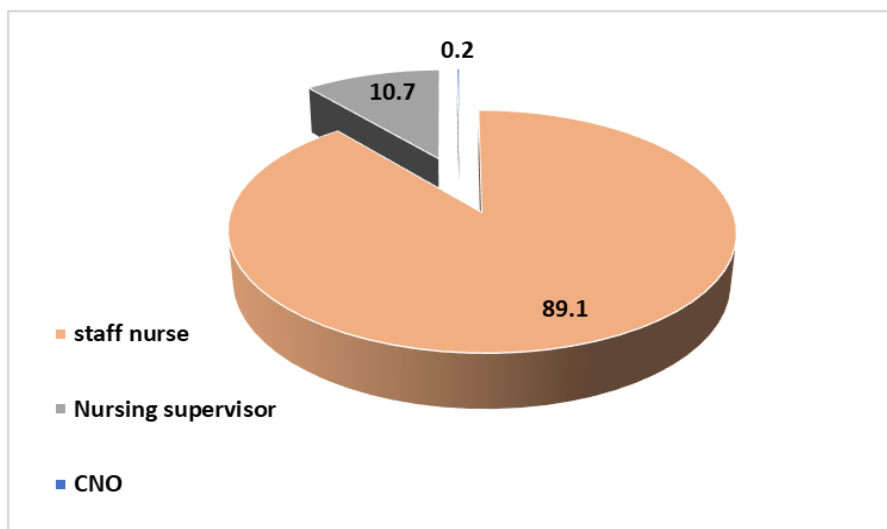
#### Table 1: Distribution of studied nursing personnel according to personal characteristics (N=550).

Table 1 presents distribution of studied nursing personnel according to personal characteristics. Regarding Menoufia University Hospital, more than one third of the studied nursing personnel were aged less than 25 years (44.4%). The majority of them (78.1%, 67.1%, 87.1% & 72.1%) were females, unmarried, held the position of staff nurse and hadn't attend any training courses related clinical governance respectively. Approximately, half of them (49.6% & 59.5%) had bachelor's degrees of nursing and less than 5 years of experience respectively. Similarly, Shebin Elkom Teaching Hospital, the majority of studied nursing personnel (78.9%, 71.4%, 93% & 70.8%) were females, unmarried, held the position of staff nurse and hadn't attend any training courses related clinical governance respectively. Additionally, over half

of them (55.1%, 51.4% & 64.9%) were aged less than 25 years, had associate degrees in nursing and less than 5 years of experience respectively.

**Table (1): Socio- demographic characteristics of the studied sample (n = 110)**

Personal characteristics items		Menoufia University Hospital (N=365)		Shebin Elkom Teaching Hospital (N=185)	
		N	%	N	%
Age	< 25	162	44.4	102	55.1
	25 to < 35	142	38.9	54	29.2
	≥30	61	16.7	29	15.7
<b>Mean ±SD</b>		<b>28.34± 9.42</b>		<b>27.43±8.63</b>	
Sex	Female	285	78.1	146	78.9
	Male	80	21.9	39	21.1
Position	Staff nurse	318	87.1	172	93.0
	Nursing supervisor	46	12.6	13	7.0
	CNO	1	0.3	0	0.0
Level of education	Associate nursing degree	165	45.2	95	51.4
	Bachelor's degree in nursing	181	49.6	88	47.6
	Postgraduate nursing studies	19	5.2	2	1.1
Years of experiences	<5	217	59.5	120	64.9
	5 to <10	90	24.7	36	19.5
	≥10	58	15.9	29	15.7
<b>Mean ±SD</b>		<b>5.32±3.89</b>		<b>5.04±3.87</b>	
Marital status	Unmarried	245	67.1	132	71.4
	Married	120	32.9	53	28.6



**Figure (1): Distribution of studied nursing personnel according to their position (N=550)**

**Table 2: Patients' safety in the study settings from studied nursing personnel perspectives (N=550).**

Setting	Menoufia University Hospital (N=365)		Shebin Elkom Teaching Hospital (N=185)		X <sup>2</sup>	P-value
	N	%	N	%		
High Level	54	14.8	31	16.8	.362	.548 <sup>NS</sup>
Moderate Level	311	85.2	154	83.2		
Low Level	0	0.0	0	0.0		

Table 2 shows patients' safety in the study settings from studied nursing personnel perspectives. The table

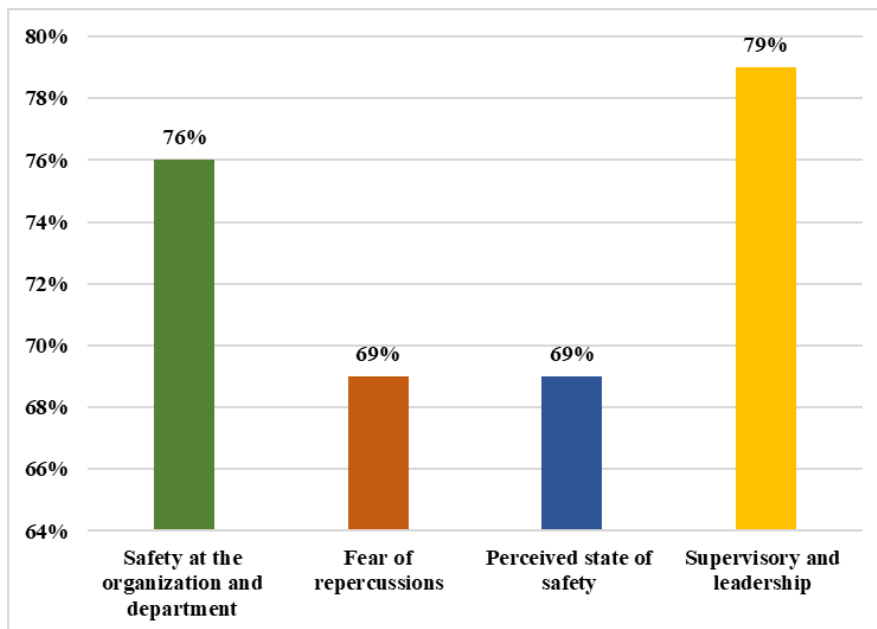
illustrated that the majority 85.2% of nurses at Menoufia and 83.2% at Shebin Elkom reported moderate levels of safety. Otherwise, 14.8% of nurses at Menoufia and 16.8% at Shebin Elkom reported high levels of patient

safety. While no nurses indicated a low level of patient safety. There was no statistically significant difference between the two hospitals.

**Table (3): Patients’ safety dimensions in the study settings (N=550).**

Study settings	Maximum Score	Menoufia University Hospital	Shebin Elkom Teaching Hospital	U	P-Value
Patients’ safety dimensions		Mean ±SD	Mean ±SD		
Safety at the organization and department	50	38.04±4.35	37.88±4.72	.396	.692 NS
Fear of repercussions	40	25.59±4.02	25.58±4.02	.029	.977 NS
Perceived state of safety	40	25.61±3.97	25.58±4.32	.074	.941 NS
Supervisory and leadership	50	35.50±3.84	35.54±4.02	.111	.912 NS

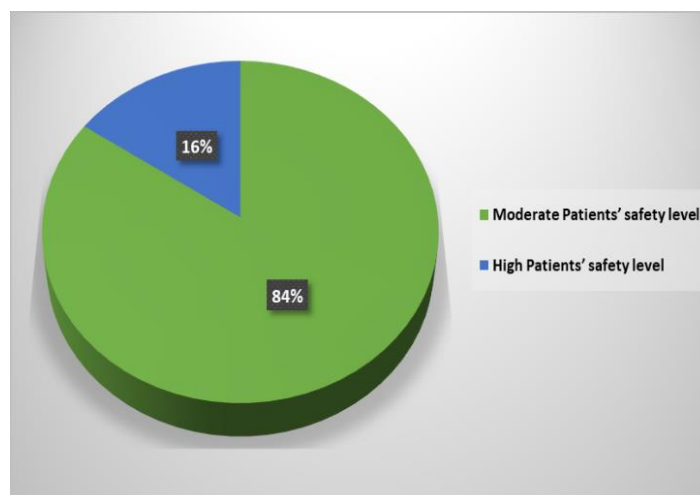
U: Mann-Whitney Test; NS: not Significant



**Figure (2) Mean percentage of patients’ safety practices as reported by nursing personnel (N= 550).**

Table 3 and figure 2 present the patient’s safety’ dimensions in the study settings. The results showed that the mean scores of all dimensions (safety at the

organization and department, fear of repercussions, perceived state of safety, and supervisory and leadership) are nearly identical between the two study settings.



**Figure (3): Levels of patients’ safety from studied nursing personnel’ perspectives (N=550).**

Figure 3 shows the levels of patients' safety from studied nursing personnel' perspectives. The majority of studied nursing personnel (84.5%) reported a moderate level of patient safety, while 15.5% reported a high level. Notably, no nurses reported a low level of patient's safety.

## DISCUSSION

The present study revealed that regarding Menoufia University Hospital, more than one third of the studied nursing personnel were aged less than 25 years. The majority of them (were females, unmarried, held the position of staff nurse and hadn't attend any training courses related clinical governance. Approximately, half of them had bachelor's degrees of nursing and less than 5 years of experience. Similarly, Shebin Elkom Teaching Hospital, the majority of studied nursing personnel were females, unmarried, held the position of staff nurse and hadn't attend any training courses related clinical governance respectively. Additionally, over half of them were aged less than 25 years, had associate degrees in nursing and less than 5 years of experience respectively.

The finding of the current study illustrated that the majority of studied nursing personnel reported a moderate level of patients' safety, while notably, no nurses reported a low level of patients' safety. From the researcher's point of view, the moderate level of patients' safety may be due to hospital safety that prioritizes safety, encourages reporting of errors without punishment and promotes continuous improvement. As well as learning systems that track near-misses and adverse events help identify root causes and prevent recurrence. Also, effective policies, protocols and standardized procedures such as medication administration and infection control.

Additionally, interprofessional communication and teamwork enhance open communication among nurses, physicians and allied staff prevents miscommunication-related errors. Finally, nursing staff competency and continuing education help them to be more skillful and knowledgeable and increase their sense of professionalism, which positively affects patients' safety.

The findings of the present study agreed with the study conducted by Kassem, et al., (2025) the study about; "Patient Safety Culture and Work Environment as Co-Factors Affecting Nurses' Attitudes toward Incident Reporting" which revealed that the majority of nurses possessed a moderate level of perception regarding patients' safety. Also, the findings of the present study were consistent with the study conducted by El-Sayed & El-Sayed, (2025) titled; "Patient safety attitude among intensive care unit physicians and nurses" which revealed that the majority of nurses had a moderate perception of patients' safety.

At the same line the study conducted by Alshammari, et al., (2024) titled; "Exploring the perception of safety

culture among nurses in Saudi Arabia" which revealed that the majority of nurses had a moderate perception of patients' safety, with no reports indicating a low level. Additionally, the finding of the present study was consistent with the study conducted by Alshammari, Alshammari & Alshammari, (2023) titled; "Predictors and outcomes of patient safety culture at King Abdulaziz Medical City, Jeddah, Saudi Arabia" which revealed that the majority of nurses had a moderate perception of patients' safety, with no reports of low safety levels.

The findings of the present study were incongruent with the study conducted by Hassan & Osman. (2025) titled "Barriers to promoting patient safety culture in North African healthcare settings" which revealed that the majority of nurses had low levels of patients' safety.

Furthermore, the study conducted by Al-Mutairi & Salem. (2025) titled "Cultural and Organizational Influences on Patient Safety" which revealed that the majority of studied nurses had low levels of patients' safety. In the same line, the study conducted by Elsaid Awad Dawa, Faisal Fakhry & Mohamed. (2024) titled; "Relationship between Patient Safety Culture and Job Stress among Staff Nurses" which revealed that the majority of nurses had low levels of patients' safety.

Moreover, these findings disagreed with the study conducted by Kakemam, et al., (2021) the study about; "Nurses' Perception of Patient Safety Culture and its Relation with Adverse Events: A National Questionnaire Survey in Iran" which revealed that the majority of nurses had low levels of patients' safety.

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**Availability of data and materials:** Upon reasonable request, the corresponding author will provide the datasets used and/or analyzed in the current study.

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**Conflict of Interest:** No possible conflicts of interest were disclosed by the authors.

**Transparency statement:** I confirm that this manuscript is an honest, accurate, and transparent report of the study; that no significant details of the investigation have been left out; and that any deviations from the planned (and, if applicable, registered) study have been explained.

**Author's contribution**

Conceptualization, Methodology, Validation, Formal analysis, Data curation, Writing original draft preparation, Visualization: **Omima Halawa.**

Writing review and editing, Supervision: **Afaf Shehatah, Omima Halawa, Aml Farahat, Gawharah Gad.**

All authors have read and agreed to the published version of the manuscript.

**REFERENCES**

1. World Health Organization. (2024). Global Patient Safety Report 2024. World Health Organization.
2. Wattenbarger, J. (2024). Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study of the High-Risk Private Industry (Doctoral dissertation, California Baptist University).
3. Soori, H. (2024). Errors in Medical Procedures. In *Errors in Medical Science Investigations* (pp. 205-224). Singapore: Springer Nature Singapore.
4. Chance, E., Florence, D. & Abdoul, I. (2024). The Effectiveness of Checklists and Error Reporting Systems in Enhancing Patient Safety and Reducing Medical Errors in Hospital Settings-a Narrative Review. *International Journal of Nursing Sciences*, 11(3): 387–398.
5. Almutairi, A. & Alonazi, N. (2023). Healthcare Providers' Perceptions of Patient Safety culture in Saudi Arabia: A Cross-Sectional Study using the Hospital Survey on Patient Safety Culture (HSOPSC). *BMJ Open*, 13(1): e065238.
6. El-Sayed, T. & El-Sayed, M. (2025). Patient Safety Attitude among Intensive Care Unit Physicians and Nurses: A Multi-Center Study in Egypt. *Journal of the Egyptian Public Health Association*, 100(1): Article 11. <https://doi.org/10.1186/s42506-025-00190-2>
7. Kassem, A., Elka Saby, G., Sally, S., & Alshaer, A. (2025). Patient Safety Culture and Work Environment as Co-Factors Affecting Nurses' Attitudes Toward Incident Reporting. *Mansoura Nursing Journal*, 12(1).
8. Alshammari, F., Alshammari, M., Alshammari, A., & Alshammari, R. (2024). Exploring the Perception of Safety Culture among Nurses in Saudi Arabia. *BMC Nursing*, 23(1), Article 412. <https://doi.org/10.1186/s12912-024-02077-7> Craven F, Hirnle J. *Fundamental of Nursing* 7<sup>th</sup> edition, 2009; 763-70.
9. Alshammari, F., Alshammari, M., & Alshammari, A. (2023). Predictors and Outcomes of Patient Safety Culture at King Abdulaziz Medical City, Jeddah, Saudi Arabia: A nursing perspective. *BMC Nursing*, 22(1), Article 391.
10. Hassan, L. & Osman, T. (2025). Barriers to Promoting Patient Safety Culture in North African HealthCare Settings. *Journal of Patient Safety & Quality Care*, 12(1): 45–56.
11. Al-Mutairi, N., & Salem, H. (2025). Cultural and Organizational Influences on Patient Safety in GCC Countries. *BMC Health Services Research*, 25, Article 112. <https://doi.org/10.1186/s12913-025-0112-z>
12. Elsaid Awad Dawa, H., Faisal Fakhry, S. & Mohamed, F. (2024). Relationship Between Patient Safety Culture and Job Stress Among Staff Nurses. *Egyptian Journal of Health Care*, 15(2): 238–251.
13. Kakemam, E., Hajizadeh, A., Azarmi, M., Zahedi, H., Gholizadeh, M. & Roh, Y. (2021). Nurses' Perception of Patient Safety Culture and Its Relationship with Adverse Events: A national questionnaire survey in Iran. *BMC Nursing*, 20, Article 60. <https://doi.org/10.1186/s12912-021-00571-w>