
Assessing Staff Nurses' perception about patient safety culture at Mansoura University Children's Hospital

Background: The implementation of patient safety culture must be a primary matter within every service provided to patients aiming to maintain the effectiveness of healthcare delivery. Effective communication and leadership at all levels in healthcare organizations are two organizational and management factors that significantly affect the implementation of a patient safety culture and delivery of high-quality care. Nurses have a critical role in setting up and preserving a positive culture of patient safety because they frequently interact with patients and provide all necessary nursing care in a professional manner under various demands with high-quality care. **Aim:** To determine the level of staff nurses' perception of patient safety culture at Mansoura University Children's Hospital. **Methods:** A cross-sectional, descriptive method was utilized employing 99 staff nurses as a sample at Mansoura University Children's Hospital. **Data collection tool was** The Hospital Survey on Patient Safety Culture (HSPSC). **Results:** Over half (51.5%) of staff nurses studied had positive perception about patient safety culture dimensions while almost one quarter of them (25.3%) had negative perception. **Recommendations:** Working closely with healthcare professionals from all hospital departments to foster a comprehensive strategy to enhance patient safety culture and care continuity.

Keywords: *perception, Practice, Staff nurses, patient safety culture.*

Introduction

It is essential to establish a robust and well-organized culture that prioritizes patient safety in healthcare settings. This is because it necessitates creating an environment in which healthcare personnel collaborate as a team, freely exchange information, and receive strong leadership support in their commitment to patient safety. It will improve the overall performance of the healthcare system and lead to better patient care standards (Liemarto, & Ferijani, 2025).

It is possible to achieve competence and proficiency in patient safety culture by minimizing and mitigating risky clinical behaviors and utilizing validated effective techniques to achieve optimal patient outcomes by

assisting healthcare professionals in learning how to prioritize error prevention, detection, and intervention as part of their professional duties (Alrasheeday, et al., 2025).

Identifying organizational strengths and weaknesses, assessing trends, figuring out what needs to be done to improve patient safety, and comparing metrics with other healthcare settings should all be part of improving patient safety culture. Integrating safety practices into workplace climate is vital for improving patient safety, which in turn results in improved healthcare quality and a reduction in preventable negative outcomes (Albsoul, et al., 2025).

Patient safety culture pertains to the shared values, practices, and beliefs that emphasize patient-centered safety across healthcare institutions and affect the attitudes and manner of healthcare personnel. Healthcare managers have an ethical and legal obligation to guarantee the provision of secure medical and healthcare services (Wahyuningsih, Asih, Masitoh, & Rahmawati, 2024).

it is also the recognition of individual imperfections, being proactively in detection of hidden hazards, dedication to learn from mistakes, and integration of non-punitive methods for documenting and evaluating clinical errors in the context of unfavorable outcomes for patients (Huntsman, Greer, Murphy, & Li, 2022).

Gaining the trust of patients requires a culture of patient safety. Healthcare professionals that show a dedication to safety are more likely to be trusted by patients. The patient experience is improved and confidence in the healthcare system is increased by an open culture which puts a high concentration on safety practices. Additionally, it helps healthcare workers deal with surroundings that are complicated and dynamic (Huang, Jen, Tsay, Wang, & Tung, 2024).

To implement a patient safety-focused culture, activities, mechanisms, workflows, as well as attitudes may need to be changed. Organizations that have a strong reporting culture are able to collect information about occurrences, examine patterns, and put plans in place to stop mistakes in the future. Staff are more willing to talk about mistakes and safety issues when

they have no fear of facing consequences (Labrague, 2024).

Significance of Study

patient safety culture inspections are seen as the foundation for action planning, it helps health care organizations to investigate positive and negative aspects of their safety culture, recognize patient safety features that require immediate attention, assist units in identifying their greatest prevalent patient safety issues, and assess how their scores align with those of other healthcare facilities. Developing a robust patient safety culture is critical to enhance care quality, guaranteeing legal compliance, and cultivating patient trust. It necessitates constant dedication from the leadership and active involvement from every staff. The starting point in establishing a robust patient safety culture in a hospital as Mansoura University Children's Hospital has been found to be evaluating the current state of that culture.

Aim of the study

The research aims to evaluate level of staff nurses' perception about patient safety culture at Mansoura University Children's Hospital.

Methods

Research design:

Descriptive cross-sectional design was the research approach applied in this study.

The study setting:

The study was executed across every medical and surgical department of

Mansoura University Children's Hospital, which is connected to Mansoura University Hospitals and provides a broad range of pediatric healthcare services.

Study participants:

A convenience sample was utilized which included all existing staff nurses (n= 99) who were actively in charge of delivering patient care in all medical and surgical departments who were accessible when the data was being collected.

Data collection tools:

Onetool was utilized to gather data: The Hospital Survey on Patient Safety Culture (HSPSC).

Tool (I): The Hospital Survey on Patient Safety Culture (HSPSC)

It was developed by the Agency for Healthcare Research and Quality publication (2018) to assess concerning the study units' patient safety culture. It is composed of two parts.

The first part: designed to detect personal attributes of research participants, like gender, educational level, and work department.

The second part: aims to measure staff nurses' level of perception about patient safety culture. It includes 42 objects divided into the following 12 domains: Teamwork within units four items, Supervisor/Manager expectations & Actions promoting patient safety four items, Organizational learning-continuous improvement three items, Management support for patient safety three items, Overall perceptions of patient safety

four items, Feedback and communication about error three items, Communication openness three items, Frequency of events reported three items, Teamwork across units four items, Staffing four items, Handoffs & Transitions four items, Nonpunitive response to errors three items. A 5-point Likert scale was used for assessing staff nurses' responses: (1) strongly disagree, (2) disagree, (3) neutral, (4) agree, and (5) strongly agree for all items, with the exception of three domains (feedback and communication about error, communication openness, and Frequency of Events Reported), which had items ranging from (1) Never, (2) Rarely, (3) Sometimes, (4) Mostly, and (5) Always.

Scoring system

The scoring system is based on a statistical cutoff point divided into three categories as:

- Low level (<50% of the total score).
- Moderate level (50 %-<75% of the total score).
- High level (\geq 75% of the total score).

Validity and reliability

Validity: tools were developed to evaluate both face and content validity. Five specialists within the field of nursing administration reviewed the tools after they were translated into Arabic for clarity, relevance, applicability, comprehensiveness, comprehension, and simplicity of utilization. They also evaluated the whole instrument as being pertinent

and suitable for testing what it was intended to measure, and depending on their assessments, the required additions, corrections, and modifications were made. **Reliability:** The study instruments' internal consistency was assessed using Cronbach's alpha. This test required a score of at least 0.5 and ideally over 0.7 and was for Tool I ($\alpha=0.901$), Tool II ($\alpha=0.896$), and Tool III ($\alpha=0.885$) which showed high reliability.

Pilot study

Before carrying out the primary study and starting data gathering, a pilot study was done. It was conducted on 11 staff nurses (10% of the entire research sample) who were chosen at random to evaluate the simplicity and application of the tools, identify potential roadblocks and issues during data collection, test the language's clarity, and calculate the amount of time needed to complete the questions. The research did not include the pilot study participants.

Ethical Considerations:

Mansoura University Faculty of Nursing's Research Ethics Committee provided ethical permission. The study sample provided written informed consent, participation was voluntary, and authorized approval to accomplish the study was acquired by the hospital's competent administration. All data was coded to ensure the subject's anonymity and confidentiality. The study sample's privacy was guaranteed. Data confidentiality was preserved, and the findings were utilized for future

publishing and instruction in addition to being a part of the required research.

Data Collection:

All available staff nurses received the tool. The purpose regarding to this research and the way to fill it out the were described by the researcher. It took 20 to 25 minutes for staff nurses to finish the tool by reading the questions and completing the tool. The data was collected on Sunday, Monday, Tuesday, and Wednesday, four days per week, in the morning and evening shifts. Data collection began in January 2024 and concluded in late April 2024.

Data Analysis:

SPSS software (Statistical Package for the Social Sciences, version 22, SPSS Inc. Chicago, IL, USA) was utilized to arrange, tabularize, and analyze the gathered data. The assumption of normality was acknowledged. As a result, frequency and percentage were used to describe categorical data. The mean and standard deviation were used to represent continuous variables. When variables are parametric and continuous, a two-way ANOVA test was used to examine Variations in measurements that were repeated. When variables are ordinal, Friedman's test was used to examine changes in repeated measures (Dawson & Trapp, 2001).

Results:

Table (1) displays the personal characteristics of the Mansoura University Children's Hospital staff nurses under study. It revealed that 85.9% of the staff nurses under study were female. Regarding the

educational background of staff nurses, over two thirds (61.6%) had a bachelor's degree, and over one third (40.4%) had more than 20 years of experience, with a mean score of 17.23 ± 6.5 .

Table (2) demonstrates mean scores of the staff nurses' perception about patient safety culture dimensions. It displayed that the overall patient safety culture mean scores was 134.90 ± 12.14 . It revealed that the non-punitive response to errors dimensions had the lowest mean score (7.18 ± 2.83). Furthermore, the dimension with the highest mean score (14.84 ± 3.46) is Teamwork Within Units.

Table (3) shows level of the studied staff nurses' perception regarding

patient safety culture at Mansoura University Children's Hospital. It exhibited that more than half of studied staff nurses (54.5%) had moderate level of perception, while (20.2) had low level and nearly one quarter of them (25.3) was at high level.

Table (4) exhibits the relationship between the staff nurses' overall patient safety culture perception scores and their personal characteristics at Mansoura University Children's Hospital. It demonstrated there was no statistically significant difference between the patient safety culture perception scores of staff nurses and their sex, educational level as well their years of experience.

Table (1): Personal characteristics of the studied staff nurses (n=99).

Personal Characteristics	The studied staff nurses (n=99)	
	No.	%
Sex		
▪ Male	14	14.1
▪ Female	85	85.9
Educational qualification		
▪ Diploma of Nursing	18	18.2
▪ Technical Nursing Institute	20	20.2
▪ Bachelor Degree	61	61.6
Years of Experience		
▪ <10 years	20	20.2
▪ 10-20 years	39	39.4
▪ >20 years	40	40.4
<i>Range</i>	2 - 25	
<i>Mean ± SD</i>	17.23 ± 6.5	

Table (2): Mean Scores of the studied staff nurses' Patient safety culture dimensions at Mansoura University Children's Hospital (n=99)

Patient safety culture dimensions	Patient safety culture dimensions mean
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(Each item was scored 0-5)	scores score of the studied staff nurses (n=99)	
	No. (Score)	Range Mean±SD
Supervisor / Manager Expectations & Actions Promoting Patient Safety	20	8–16 12.07 ± 2
Organizational Learning—Continuous Improvement	15	3–15 11.15 ± 2.58
Teamwork Within Units	20	4–20 14.84 ± 3.46
Non punitive Response to Errors	15	3–13 7.18 ± 2.83
Staffing	20	4–14 10.41 ± 2.09
Management Support for Patient Safety	15	4–14 9.61 ± 1.89
Teamwork Across Units	20	8–16 10.98 ± 1.45
Handoffs & Transitions	20	4–16 9.73 ± 3.20
Overall Perceptions of Patient Safety	20	4–20 12.92 ± 2.36
Communication Openness	15	3–12 7.99 ± 1.75
Feedback & Communication About Error	15	3–15 9.12 ± 2.54
Frequency of Events Reported	15	5–15 8.64 ± 2.26
Total patient safety culture	210	93–155 134.90 ± 12.14

Table (3): Total level of perception of the studied staff nurses' Patient safety culture at Mansoura University Children's Hospital (n=99)

Total Patient Safety Culture	Total level of the studied staff nurses pre and post training program
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	(n=99)	
	No. (Score)	%
Total perception level		
Low level (42-104)	20	20.2
Moderate level (105–156)	54	54.5
High level (157-210)	25	25.3
Total score		
Range (42-210)	93–155	
Mean±SD	134.90 ± 12.14	

N.B. Perception level was classified into; low level (<50% of scores), moderate level (50<75% of scores) and high level (≥ 75% of scores)

Table (4): Total patient safety culture perception scores of the studied staff nurses in relation to their personal characteristics at Mansoura University Children's Hospital (n=99)

Personal Characteristics	Total patient safety culture perception scores of the studied staff nurses (n=99)	
	Mean±SD	P value
Sex		
▪ Male	134.07±11.51	0.274
▪ Female	135.04±12.30	
Educational qualification		
▪ Diploma of Nursing	139.72±8.09	0.164
▪ Technical Nursing Institute	134.75±11.53	
▪ Bachelor Degree	133.52±13.09	
Years of Experience		
▪ <10 years	134.05±10.29	0.262
▪ 10-20 years	137.33±10.90	
▪ >20years	132.95±13.89	

Discussion

Patient safety culture is regarded as one of the reliable indicators of a hospital's success and is

crucial to guarantee the provision of high-quality healthcare. It affects not only patient outcomes but also the functioning of the healthcare system.

Consequently, the success of any complete patient safety strategy depends on enhancing nurses' capacity to preserve patient safety culture (Freedman, Li, Liang, Hartin, & Biedermann, 2024).

Nurses are an essential component of every hospital's patient safety initiative, as they deal directly with patients on a daily and often hourly basis. Therefore, appropriate patient safety strategy must concentrate on improving their capacity to deliver accurate and evidence based high-quality care (Pierre, Grawe, Bergstrom, & Neuhaus, 2022).

The goal of the current study was to determine level of how staff nurses perceive patient safety culture at Mansoura University Children's Hospital. Finding of the current study demonstrated that over than half of participating staff nurses (54.5%) had moderate level of perception about patient safety culture.

This could be the result of hospital management's actions, which demonstrate that patient safety culture as a primary focus and foster a work environment which supports patient safety; staff nurses openly discuss practices that could destructively impact patient care; nurses receive information concerning mistakes that occur within the department and engage in discussions on how to avoid errors from future occurrence; managers ignore frequent patient safety concerns and promote performance completed in compliance with standards safety

protocols; nurses consistently engage in continuous actions to strengthen patient safety; and leaders assess their effectiveness after making changes to enhance safety for patients.

This is in accordance with the findings of Yilmaz, Yildiz Keskin, and Sönmez's (2025) study, who found that the overall mean positive response score indicated a moderate level and identified as a neutral patient safety culture area. Additionally, it was mentioned that healthcare settings are extremely complicated, which emphasizes the importance of paying attention to efficient systems and procedures, encouraging open communication across all staff levels, and strengthening patient safety culture through ongoing education.

These results are consistent with those of Alabdullah & Karwowski (2025), who conducted a study to reveal patient safety culture trends in US hospital settings in order to identify strengths and weaknesses in PSC over time. They determined that healthcare workers' perceptions of PSC were generally moderate. This showed that despite observable advancements, more work is still needed to foster a stronger safety culture throughout hospitals, which in turn highlighted obstacles including poor communication and mistakes, as well as a fear of reporting mistakes and consequences that must be systematically addressed.

In the same line with Alotaibi, Hassan, and Gabr (2025), who investigated the association between the nursing workplace and patients'

safety culture in Saudi Arabia, and exposed that most of the staff nurses in the study had an average patient safety culture. This could be explained by inadequate leadership commitment, which could hinder employees from implementing safety procedures. In order to minimize risks and prevent recurrence and guarantee the consistent provision of high-quality care, patient safety protocols should be preserved and issues should be identified, addressed, and corrected immediately.

These findings are in harmony with a study conducted by **Mekonnen, Girma, Telay, and Abie (2025)** and concluded that the rates of positive responses across the patient safety culture dimensions were moderate because open reporting and collaboration are still hampered by intermittent commitment to safety practices and fear of blame. Therefore, areas that need more improvement should receive prompt attention.

Furthermore, these results are consistent with **Sani, Jafaru, Ashipala, and Sahabi, (2024)** who performed research on the stress at work on nurses' perceptions of patient safety culture, and observed that the most of them had a moderate perception of patient safety culture. This discovery is crucial for developing an intervention that assesses patient safety culture as the initial phase and starting point toward enhancing healthcare's general efficiency, service quality, and patient safety procedures.

This finding aligns with **Alkubati, et al., (2024)** assessment of

the association between critical care nurses' patient safety culture perceptions and the occurrence of adverse events in critical care units in Egypt. The study found that most nurses had a moderate overall view of patient safety culture, that implied that nurses validated their inadequate competence in performing safe clinical practices for patients and stressed the significance of empowering nurses to strengthen their competency in patient safety.

This result matches up with the research conducted by **Al Muharraq, et al., (2024)** to investigate the perception of safety culture among Saudi Arabian nurses, which revealed that staff nurses had a moderate level of safety culture perspective. Therefore, in order to focus on, prioritize the enhancement of patient safety and shift to more supportive, learning-focused approaches within health care organizations, healthcare management, nurse managers, and leaders should demonstrate an appropriate interest in fostering a strong culture of safety along with providing sufficient resources.

This is similar to **Mrayyan, (2022)** who explored patient safety culture predictors and consequences in Jordan, which demonstrated that nurses' assessment of patient safety culture was tended to be positive and moderate. Therefore, in order to improve PSC and improve clinical results, safety-related measures should be prioritized. Additionally, the moderate level of perception indicated that while nurses were aware of safety, there was still a

gap that required initiatives to promote a long-lasting safety culture.

As well, the current study reflected that there was no statistically significant variance between the patient safety culture perception scores of staff nurses and their sex, level of education and their years of experience. Working inside the same organizational setting with same safety policies, procedures, and standards may be the cause of this. Moreover, views of patient safety culture are more influenced by workplace culture and leadership than by individual demographic characteristics.

In this regard, the study's findings are matched with those of **Alotaibi, Hassan, and Gabr (2025)**, who investigated the relationship between the nursing workplace and patients' safety culture and found no apparent disparities in the nurses' views and understanding of patient safety culture based on their years of experience or gender. This is in line with **Rawas & Abou Hashish's (2023)** assessment of the predictors and outcomes of patient safety culture in Saudi Arabia, which found no significant variation in the perceived patient safety culture based on the sociodemographic characteristics of nurses, such as sex, age group, years of experience, or educational level.

Additionally, **Zabin, Qaddumi, and Ghawadra (2025)**, who investigated the association between occupational stress and nurses' perceptions of patient safety culture in Palestinian hospitals, discovered that

respondent characteristics such as gender, age group, marital status, and academic level were not significantly correlated with the perception of PSC because nurses generally deal with similar working conditions that trigger similarities in safety perceptions more than demographic groups.

Conclusion

This study concluded that more than half of studied staff nurses had moderate level of perception about patient safety culture.

Recommendations

- Holding orientation programs and sessions to foster a patient safety-oriented culture at both top and lower management levels
- Securing the resources and support needed for staff training, patient safety culture initiatives and continuous improvement activities.
- Cultivating a non-punitive environment that encourages staff to speak up and increase the effectiveness of patient safety culture strategies
- Providing leadership development programs that are specifically tailored to unit managers about patient safety culture principles
- Establishing regular meetings and feedback mechanisms to facilitate transparent communication, allowing nursing staff to share insights, report issues, and contribute to continuous improvement initiatives.
- Changing the organizational culture of blame to support culture so the staff would report defects without

fear so the administrator can investigate the root of the problem.

- Working closely with colleagues from various departments to foster a comprehensive strategy to enhance patient safety culture and care continuity.

Further research:

- Analyzing the influence of patient safety culture practices on process efficiency in organization.
- Extending research beyond nursing staff to include multidisciplinary teams as nurses, physicians, and pharmacists to see effect of patient safety culture within diverse healthcare facilities.
- Approaches and strategies for enhancing the culture of patient safety in health care facilities.
- Examining the various aspects that affect staff nurses' patient safety culture competencies.

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