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Original Article

The Relationship Between Structural Empowerment and Patient Safety Culture Among Staff Nurses in Fowa Central Hospital at Kafr El-Sheikh

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1. ABSTRACT

Background: The empowerment of staff nurses create a great professional satisfaction, declination in rates of burnout, and increasing in autonomy and organizational commitment. Furthermore, it has a positive effect on the standard of treatment and patient safety in the healthcare system. **Aim:** Determine the relationships betweenstructural empowerment and patient safety culture among staff nurses in Fowa Central Hospital at Kafr ElSheikh. **Method:** A descriptive correlational design was used and included 225 staff nurses working at Fowa Central Hospital at Kafr ElSheikh. Two tools were used to collect the data: Conditions of Work Effectiveness Questionnaire-II (CWEQ) and Patient Safety Culture Questionnaire. **Results:** 78.2%of nurses exhibited a moderate level of structure empowerment. Also, 99.1% of the nurses perceived a moderate level of overall patient safety culture. **Conclusion:** Structural empowerment has a significant influence on patient safety culture, because patient safety culture and structural empowerment showed a statistically meaningful relationship. **Recommendations:** Nurse managers empowered their staff by providing opportunity to learn and grow, support, and necessary resources. Standardizing hand-off guidelines, as it contributes to developing a strong patient safety culture.

***Keywords*:** Patient Safety Culture, Staff Nurses, Structural Empowerment.

2. Introduction

Healthcare organizations are dynamic and changeable because of a variety of political, social, technological, and economic issues. These elements compel the organization to concentrate on the responsibilities of health care providers, in particular the position of the nurse, which calls for them to be proactive, consistently seek out professional updates, and have the authority to provide safe and excellent treatment (**Baghshykhi et al., 2020; Moura et al., 2020).**

The majority of healthcare professionals are nurses. They make up about half of all healthcare workers worldwide. They are the majority, the foundation of the healthcare system, and they are crucial to its transformation. In general, a healthy workplace is necessary for nurses to work in **(World Health Organization, 2020; Abu-El-Noor, Abuowda, Alfaqawi, & Böttcher, 2019).** Consequently, feelings of empowerment encourage communication among hospital staff, facilitate information exchange, and heighten feelings of support to facilitate decision-making, all of which influence care protocols, elevate the bar for patient care, and perhaps enhance patient outcomes (**Alsabri et al., 2021)**.

Different cultures have different interpretations of empowerment, which is why it is a cultural construct. Empowerment shows that nurses work together to make decisions, provide high-quality care, and meet organizational goals. Empowerment includes freedom of action, choice, and decision-making. An empowered workforce produces better work results. It's also important to recognize the roles that structural and psychological empowerment play in preserving nurses' mental health and fostering their motivation for their jobs. It might also be psychological or structural (**Saleh, Eshah, & Rayan, 2022).**

Structural empowerment is the capacity to mobilize resources and achieve objectives by having access to opportunities, resources, support, and information (**Orgambídez-Ramos et al., 2017**). In addition to the technical know-how needed to do the assignment, **Huang, Chen, Kau, Tsai,** and **Tsay (2023)** define "access to information" as knowing about organizational changes and policies. Structurally empowered workplaces are those that provide resources, knowledge, and learning opportunities to employees while also encouraging optimal job performance. Maintaining the mental well-being of

nurses and increasing their productivity depend heavily on occupational mental health (**Orgambídez-Ramos et al., 2017)**.

Structural empowerment has a favorable effect on nurse satisfaction and the provision of high-quality patient care, which directly affects nurses' nursing dimensions. Structural empowerment improves nursing outcomes and quality of care **(Boamah et al., 2017; Kretzschmer et al., 2017)**. Additionally, by creating positive workplace perceptions, structural empowerment and access to work resources will raise work satisfaction and the retention rate of nurses **(Pineau Stam et al., 2015)**.

The degree to which nurses have access to the four structures of opportunity, support, resources, and information is known as structural empowerment, and it enhances patient outcomes **(Morse & Wong, 2019)**. Most healthcare systems are said to be anchored by their nurses. The input and guidance they receive from peers, superiors, and subordinates enable them to make decisions on their own **(Nejat, Zand, Taheri, & Khosravani, 2022)**. Conversely, the ability of nurses to obtain the instruments, materials, and supplies needed to accomplish organizational goals is referred to as access to resources. Opportunities exist for nurses to further their studies and develop their careers **(Maura et al., 2020)**.

Nurses play a vital role as being with patients for the majority of their work ensures patient safety, which makes nurses essential to any healthcare facility **(Agency for Healthcare Research & Quality, 2021)**. Empowering nurses is essential because it motivates them to speak up when circumstances threaten the patient safety culture. This is due to the fact that empowered nurses are more likely to take actions that promote the culture of patient safety. Thus, empowerment is the capacity of nurses to influence others' perspectives regarding patient safety culture **(Kim & Yu, 2021)**.

The attitudes and values that managers and employees have for the management of risk and safety are referred to as safety culture, and they are favorably correlated with clinical outcomes and patient safety **(Denning et al., 2020).** In the last decades, patient safety culture has become a worldwide concern of health service organizations, as it is considered an important quality indicator in healthcare facilities and has been associated with key patient outcomes in hospitals **(Siman, Cunha, & Brito, 2017).**

A nurse's likelihood of missing nursing care can be significantly influenced by the patient safety culture and the nursing work environment. Nurses who work in healthcare organizations with a positive patient safety culture exhibit patient safety behavior and are equipped to effectively manage unexpected or challenging situations while doing their daily nursing duties **(Zeleníková, Jarošová, Plevová, & Janíková, 2020)**. A work environment where nurses are empowered and motivated to address recurring instances of missed care is created by a patient safety culture. This is achieved by having open communication and prompt reporting of incidents to address issues that, if left unchecked, could escalate into major incidents **(Song, Hoben, Norton, & Estabrooks, 2020)**.

Establishing a culture of safety among an organization's professionals can enhance its ability to achieve a patient-safety culture. A safety culture's primary attributes are a dedication to sharing knowledge and growing from mistakes, an understanding that mistakes are inevitable, proactive detection of hidden dangers, and the implementation of a non-punitive system for documenting and evaluating unfavorable patient safety culture events **(Garuma, Kebene, &Woldie, 2020)**.

Significantly, improved patient outcomes have been associated with fully staffed nursing units and nurse-empowering work settings. Furthermore, it has been shown that encouraging work environments that avoid nursing shortages while improving patient outcomes are linked to the provision of knowledge, support, opportunities, and resource empowerment (**Brayteh, 2023).**

Furthermore, since the first step in developing a positive safety culture is evaluating the current patient safety culture and improving patient outcomes, a positive patient safety culture can motivate healthcare providers to report and analyze their errors, which is an effective tool for improving safety **(Araújo et al., 2022)**. Sustaining a positive safety culture within healthcare organizations is essential for consistently raising the standard of patient care and improving the performance of nurses **(Reis, Paiva, & Sousa, 2018; Hessels et al., 2019)**.

2.1 Significance of the Study

In the medical field, nurses play a critical role in providing high-quality patient care. Patient safety (PS) is a major global public health concern because of its substantial effects on patient morbidity and mortality, high care-related costs, and the suffering of caregivers and healthcare providers, mostly in the hospital setting.

Furthermore, PS affects the health services' reputation in the community and their legitimacy. The absence of established structural empowerment cultures is evident in the reduction in patient retention and care quality at the individual unit level. This is caused by nurse leaders who fail to consistently create and maintain work environments that foster a culture of professional nursing practice behavior. Cultures that lack structural authority have deteriorated.

2.3 Aim of the Study

This study aimed to determine the relationships between structural empowerment and patient safety culture among staff nurses in Fowa Central Hospital at Kafr ElSheikh.

2.4 Research Question

1. What is the staff nurse's perception regards structure empowerment in their workplace?
2. What is the staff nurse's perception regards patient safety culture?
3. What is the relationship between the dimensions of structure empowerment and patient safetyculture?

3. Methods Design

Descriptive correlational research design was used to carry out this study. As in this study the researcher's main goal was to describe connections between variables without attempting to demonstrate a causal association (Aggarwal & Ranganathan, 2019).

3.1 Setting

The study was carried out in the Fowa Central Hospital in the Kafr El-Sheikh Governorate, which is connected to the Ministry of Health. The ten units that make up the hospital are the neonatal ICU, the medical ICU, the surgical unit, the pediatric unit, the emergency unit, the obstetric unit, the dialysis unit, the blood bank unit, and the operations room. It is divided into three floors: the emergency room and blood bank are located on the first floor, the medical, obstetric, surgical, and intensive care units, as well as the neonatal intensive care unit and operations room, are located on the second floor, and the pediatric unit is located on the third floor. The dialysis unit is housed in a separate structure with two floors and 106 beds that is not connected to the hospital. There were 271 staff nurses on duty.

3.2 Subject

All staff nurses are enrolled in a convenient sample (n=250) working in the previously mentioned units at Fowa Central Hospital at the time of the study, willing to participate, and having at least a year of experience.

3.3 Tools of the Study

To collect the data for this investigation, two tools were utilized: the Patient Safety Culture Questionnaire and the Conditions of Work Effectiveness Questionnaire-II (CWEQ):

Tool I. Conditions of Work Effectiveness Questionnaire-II (CWEQ)

This questionnaire included two parts:

Part I. It was used to find out the staff nurses' years of experience, age, gender, marital status, level of education, and work unit.

Part II. It was created in 2001 by Laschininger, Finegan, Shamian, and Wilk to gauge how nurses felt about structural empowerment. Nineteen items total—information included three items, opportunity included three 3 items, support included three items, resources included three items, informal power included four items, and formal power included three items—were used to analyze six components of the questionnaire. Each question was rated on a five-point Likert scale that went from strongly agree which takes five points, to strongly disagree, that take one point, with higher scores on the scale indicating higher levels of empowerment. A five-point Liker scale ranging from strongly disagree to one to disagree to two to agree to four to strongly agree to five was used to evaluate each statement response. Based on the cut-off point, it was divided into three categories, which are as follows:

- Low (<50%) (Scored from 19 - 47)
- Moderate (50%-75%) (Scored from 48 - 71)
- High (>75%) (Scored from 72 - 95)

Tool II. Patient Safety Culture Questionnaire

The Patient Safety Culture Questionnaire is meant to gauge staff nurses' perceptions of the patient safety cultures of the study units. It was published in 2007 by the Agency for Healthcare Research and Quality. The patient safety climate in hospitals was categorized into two levels: hospital level and unit level, based on the extent to which they explained the following elements.

Hospital Level Dimension: eighteen items tap into the five components as three related to management support for patient safety, three related to organizational learning and continuous improvement, four related to teamwork across units, four related to perceptions of patient safety, and four related to handoffs and transitions. A 5-point rating system was used to award a score to

each response.

Unit Level Dimension: There are 24 items that tap into the seven components: supervisor/manager expectations and actions promoting safety that consist of four items, staffing consist of four items, feedback & communication about error consist of three items, frequency of events reported consist of three items, teamwork within units consist of four items, non-punitive response to error consist of three items, staffing consist of four items, and communication openness health care Staff consist of three items. Each response was given one of the following five scores on a five-point Likert scale: strongly disagree take one, disagree take two, agree take four, and strongly agree take five. Higher ratings are indicative of better knowledge about the culture of patient safety and favorable attitudes on staff nurses' capacity to manage patients and deliver high-quality treatment. Disagree and strongly disagree are negative responses, according to **Sorra, Yount,** and **Famolaro et al. (2021).**

It was categorized into three levels according to cut off point as the following:

- Low (<50%) (scored from 42 - 104)
- Moderate (50%-75) (scored from 105 - 157)
- High (>75%) (scored from 158 - 210)

3.4 Validity and Reliability

The researcher translated the data collection instruments into Arabic. Five experts from the Mansoura University Faculty of Nursing developed the validity for both face and content validity. Based on their observations, they updated the tools for three things, making changes for simplicity of use, comprehension, comprehensiveness, relevance, and applicability. Some sentences have to be rephrased as part of the changes. Additionally, the frequency of events reported component was changed to the events reported, and the neither Likert scale response was changed to neutral. This modification was made to the patient safety culture questionnaire at the unit level as well.

Reliability test of the study tools was tested by Cranach's Alpha test. Reliability was computed and found as; Conditions of Work Effectiveness Questionnaire ($\alpha = 0.80$), overall Patient Safety Culture Questionnaire ($\alpha = 0.79$) that divided into hospital level ($\alpha = 0.71$) and the unit level ($\alpha = 0.70$).

3.5 Pilot Study

A pilot study with 25 staff nurses or 10% of the study sample. They were excluded from the total sample and selected at random. This was done to evaluate the feasibility of the study tools, their degree of clarity, and the time required to finish them. Staff nurses who took part in the pilot experiment were not included in the sample as a whole.

3.6 Ethical considerations

Ethical approval was given by the Mansoura University Faculty of Nursing Research Ethics Committee. The relevant Fowa Center Hospital administrator granted formal approval to perform the study. It was made clear to every participant that their involvement in the study is entirely voluntary and that they can leave at any moment. Participants in the study were assured of the confidentiality of the data collected during the whole inquiry, as well as the anonymity of the study sample. The results were used to carry out a portion of the necessary research. It was also used for instructional and subsequent publications.

3.7 Field Work

The goal of the study was explained to the subjects by the researcher, who also requested their involvement. During the morning, afternoon, and night shifts, the researcher went with the respondents individually or in groups to give the data collecting sheets to them in their work units and to be available to answer any questions or concerns during filling out. Weekly data collection took place three times. After making sure every questionnaire was filled out completely, the researcher took twenty-three minutes to complete each one. The period of time employed for the data gathering phase was from the beginning of April to the end of June 2022.

3. 8 Statistical Analysis

The collected data were arranged, tabulated, and statistically analyzed using SPSS Inc., Chicago, IL, USA's Statistical Package for the Social Sciences, version 25. Acceptance of the normalcy assumption was decided. As a result, categorical data were described using percentage and frequency. The continuous variables were represented by the mean and standard deviation. The independent t-test was used to look at the variation between the means of two continuous variables. To determine if two continuous variables are related, a Pearson correlation coefficient test was performed. In order to investigate the independent variable (structural empowerment) of patient safety culture (dependent variable), simple linear regression analysis was carried out. P-values of less than 0.05 and less than one was regarded as statistically significant.

4-Results

Table 1. Personal Characteristics of the Studied Nurses (n=225)

Characteristics	n	%
Age (years)		
▪ 20-30	123	54.7
▪ 30-40	76	33.8
▪ >40	26	11.6
Mean ± SD	***31.71 ± 7.02***	
Gender		
▪ Male	53	23.6
▪ Female	172	76.4
Marital status		
▪ Single	54	24.0
▪ Married	146	64.9
▪ Divorced	8	3.6
▪ Widowed	17	7.6
Level of education		
▪ Diploma degree	49	21.8
▪ Technical degree	116	51.6
▪ Bachelor degree	60	26.7
Experience years		
▪ 1-5	71	31.6
▪ 6-10	62	27.6
▪ >10	92	40.9
Mean ± SD	***10.70 ± 8.13***	
Unit		
▪ Intensive care units	95	42.0
▪ Other units	130	58.0

Table 1 shows the individual characteristics of the nurses who are the subject of the study. The average age of the study's nurses was found to be 31.71 ± 7.02, according to the data. Of the staff nurses, more than half (54.7%) were between the ages of 20 and 30, and more than three-quarters (76.4%) were female. Additionally, more than half (64.9%) of the study's nurses were married, and 51.6% of them had a technical degree in nursing teaching. Furthermore, 40.9 percent, or more, of the nurses had worked for more than ten years

Table 2. Mean Scores of Structure Empowerment Dimensions as Perceived by Studiednurses (n=225)

Structure empowerment Dimensions	No of items	Min – Max	Mean ± SD
▪ Opportunity to learn and grow	3	6.0-15.0	11.09 ± 1.77
▪ Support	3	3.0-15.0	10.95 ± 1.78
▪ Information	3	3.0-15.0	9.41 ± 2.23
▪ Resources	3	5.0-15.0	10.76 ± 1.90
▪ Informal power	4	7.0-20.0	14.02 ± 2.54
▪ Formal power	3	3.0-15.0	9.39 ± 2.63
Total structure empowerment	**19**	**29.0-95.0**	**65.63 ± 8.80**

Table 2 displays the study nurses perceived mean scores for the structure empowerment dimensions. The overall structure empowerment dimensions mean score was 65.63 ± 8.80, according to this table. With a mean score of 14.02 ± 2.54, the opportunity to grow, learn, and get support was ranked highest. Informal power came in second with a mean score of 10.95 ± 1.78, respectively, and 1109 ± 1.77.

Figure 1. Levels of Structure Empowerment Among the Studied Nurses (n=225)

Figure 1 shows the levels of structure empowerment among the studied nurses. With regard to structure empowerment, this result indicated that 78.2% of the nurses who took part in the survey had a moderate level, 20.4% had a high level, and 1.3% had a low level.

Table 3. Mean Score of Nurses' Perception of Patient Safety Culture (n=225)

Items	No of items	Min – Max	Mean ± SD
I. Hospital level			
▪ Management support for patient safety	3	3.0-15.0	9.74 ± 1.77
▪ Organizational learning Continuous improvement	3	3.0-15.0	11.08 ± 1.89
▪ Teamwork across units	4	7.0-20.0	12.26 ± 1.48
▪ Overall perceptions of patient safety	4	6.0-20.0	10.57 ± 2.16
▪ Handoffs and transitions	4	4.0-20.0	9.57 ± 2.43
Total	**18**	**31.0-75.0**	**43.48 ± 4.86**
II. Unit level			
▪ Feedback and communication about error	3	6.0-15.0	11.18 ± 1.94
▪ Frequency of events reported	3	3.0-15.0	11.08 ± 2.03
▪ Teamwork within units	4	4.0-20.0	14.71 ± 2.94
▪ Non-punitive response to an error	3	4.0-15.0	9.99 ± 2.23
▪ Supervisor/manager expectations and actions promoting safety	4	5.0-20.0	12.67 ± 1.97
▪ Staffing	4	5.0-20.0	11.52 ± 2.18
▪ Communication openness Staff	3	4.0-13.0	9.04 ± 1.59
Total	**24**	**64.0-110.0**	**80.21 ± 6.49**
Total Perception of Patient Safety Culture	**42**	**108.0-200.0**	**133.43 ± 9.80**

** Mean percentages related to maximum scores*

Table 3 shows the mean score of nurses' perception of safety culture of patients as perceived by studied nurses. Also, the table noted that the highest mean score at the hospital level was12.26 ± 1.48 as reported for teamwork across units, but the mean score as reported for handoffs and transitions was 9.57 ± 2.43 and it was the lowest. In addition to the highest mean score in the unit, the level was 14.71 ± 2.94 for teamwork within units and the lowest mean score was 9.04 ± 1.59 for communication openness staff. And the total perception of patient safety culture means the score was 133.43 ± 9.80 score.

Figure 2. Levels of Patient Safety Culture as Perceived by Studied Nurses (n=225)

Figure 2 shows the levels of safety culture of the patient as perceived by nurses enrolled in this study. The hospital level of patient safety culture was found to be perceived by 60.4% of the studied nurses as having a low level, while 39.1% had a moderate level. The unit level of patient safety culture was found to be perceived by 97.3% of the studied nurses as having a moderate level, and the overall patient safety culture as perceived by the study nurses was found to be 99.1% moderate.

Table (4). Relationships Between Nurses' Perception of Structure Empowerment and Patient Safety Culture Among Studied Nurses (n=225)

Structure empowermentdimension	**Hospital level-patient safety culture**		**Unit level- patient safetyculture**		**Total patientsafety culture**	
	R	p	r	P	r	p
▪ Opportunity to learn and grow	0.15	0.02*	0.22	0.001**	0.20	0.002**
▪ Support	0.07	0.26	0.17	0.01**	0.21	0.001**
▪ Information	0.23	0.000**	0.26	0.000**	0.34	0.000**
▪ Resources	0.007	0.92	0.04	0.55	0.06	0.34
▪ Informal power	0.02	0.74	0.21	0.001**	0.18	0.006**
▪ Formal power	0.03	0.66	0.18	0.005**	0.20	0.002**
Total structure empowerment	**0.11**	**0.10**	**0.27**	**0.000****	**0.30**	**0.000****

** Statistically significant ($p \leq 0.05$)

** highly statistically significant ($p \leq 0.01$)

Table 4 demonstrates the relations between the study nurses' perceptions of safety culture of the patient and the structure empowerment. All aspects of structure, empowerment and unit-level patient safety culture were shown to be statistically significantly correlated in this table, with the exception of the resource dimension, which was not. The chance to learn and grow as well as information that showed a statistically significant association were the only two aspects of hospital-level patient safety cultures that did not show a statistically significant relationship, according to this table.

Figure 3. Correlation Between Total Structure Empowerment and Patient SafetyCulture as Perceived by Studied Nurses (n=225)

Figure 3 illustrates the correlation between total structure empowerment and patient safety culture as perceived by studied nurses. The association between the examined nurses' perceptions of structure empowerment and patient safety culture is shown statistically significant in this figure

4-Discussion

Staff nurses' sense of the value placed on their job and their contributions to the care processes is known as psychological empowerment, and it is a consequence of structural empowerment in nursing, according to **Moura et al. (2020)**. Staff nurses feel competent and independent because of their psychological empowerment. As a result, staff nurses' empowerment affects increased autonomy, organizational commitment, decreased burnout rates, and improved levels of job satisfaction. Additionally, it improves the standard of care and patient safety in the medical area **(Fragkos, Makrykosta, & Frangos, 2020)**.

In general, the degree to which an organization has enabled its employees to access opportunities, knowledge, resources, support, and power is known as structural empowerment. Giving nurses the chance to improve their professional competency level with ongoing support is a well-known strategy to boost their dedication and accountability (**Ahmad, et al., 2020**). The importance of employees' involvement and contact with other members of the company is emphasized by structural being empowered, according to **Lee** and **Kim (2020)**.

According to the current study's findings, a moderate level of structural empowerment was exhibited by most of the staff nurses under investigation. This might be because staff nurses have a good degree of access to organizational information and structural resources. They also receive an acceptable level of support from peers and leaders within the organization, and leaders let staff nurses know when they need to improve in order to meet organizational objectives. This result was agreed with **Balay-odao et al. (2022)** noted that the staff of nurses in the hospitals had a moderate to high degree of structural empowerment. To increase their empowerment, they advised using tactics like incentives, awards, and recognition for excellent nursing practice.

Also, this is agreed with a study done by **Moura et al. (2020)** that assessed university hospital nurses' level of structural empowerment and determined that the studied nurses had a modest level of structural empowerment, meaning they had some access to the opportunities, resources, support, and expertise within the organization. In addition, the current results in the same context with a study by **Trus, Razbadauskas, Doran,** and **Suominen (2019)** in Lithuania and reported that the total level of staff nurses' overall structural empowerment was deemed moderate

Additionally, the finding was matched with **Mahfouz, Ebraheem,** and **Mahdy, (2019)** in Egypt, who carried out studies on the relationship between shared governance, being empowered, and work involvement. Additionally, it was shown that a significant proportion of the staff nurses reported highest levels of structural empowerment. To raise the degrees of structural empowerment, they suggested fostering a positive work atmosphere, maintaining open channels of communication through regular staff meetings, facilitating information access, and developing skills.

As **El Shal, Eid,** and **Ebrahim, (2018)** upon examining the correlation between the work empowerment of nursing staff and their feeling of shared governance, the study found that a majority of staff nurses possessed modest structural empowerment. They proposed updating global protocols and standards and using the shared governance model in the context of research. Enhancing the cognitive skills of nursing staff—which form the basis of decision-making and place an emphasis on empowerment—should be the ongoing aim of in-service training and educational initiatives. This is the same line of the result was agreed with, **Amiri, Khademian,** and **Nikandish (2018)** in Iran. They conducted research on how patient safety culture is affected by nurse empowerment educational programs and found that most staff nurses had a modest level of structural empowerment.

Nursing organizations depend on nurses to ensure patient safety because of the nature of their work, which involves ongoing patient monitoring and care coordination. Patient safety and employee performance are both impacted by safety culture. Pressure ulcers, patient restraints, and medication errors are among the safety outcomes in hospital settings that have been identified to be associated with it. Safety compliance and safety participation, which represent nurses' active commitment to and involvement in safety, are also related to safety performance in terms of safety culture (**Boonyaphisompan, Akkadechanunt, Kunaviktikul, & Chanprasit, 2022).**

Because they are constantly surrounded by patients, nurses are essential to enhancing patient safety culture. Nurse work engagement affects how well nurses perform while putting a patient safety

culture into place. Inadequate nurse staffing can also lead to a low patient safety culture. Patient safety is impacted by high-quality nursing care (**Nababan, Manurung, & Hutapea, 2023)**.

The hospital and unit levels, as viewed by the staff nurses under investigation, assessed the patient safety culture. According to the staff nurses who participated in the study, the general patient safety culture was rated at a moderate level. The management system supports the patients' safety culture, encourages ongoing training of the staff on it, and also fosters teamwork. This could be the result of the staff nurses' beliefs, attitudes, perceptions, competencies, and behavioral patterns. This result was matched with **Habibi, Fesharaki, Samadinia, Mohamadian,** and **Anvari (2017)** found that a moderate amount of the overall patient safety culture was present in the study on factors that affecting culture of patient safety.

As well, this result was corresponding with **Cho,** and **Choi (2018)** that noted that registered staff nurses' patient safety cultures were found to be typically moderate when the patient safety competencies were examined in relation to the patient safety cultures. In order to improve and sustain high levels of patient safety attitudes, skills, and knowledge among the unit's nurses, which would ultimately affect patient safety; they advised that a patient safety culture specific to the unit be created. This culture should be tailored to the competencies of the unit's nurses in patient safety practice.

In addition, this result was identical with **Abdelaliem,** and **Alsenany, (2022)** who conducted research for sustainable nursing practice on elements influencing patient safety culture from the viewpoints of staff nurses and discovered that most staff nurses had positive perceptions of patient safety culture.

According to the current study, over 50% of the staff nurses who were studied had a positive opinion of patient safety culture at the unit level, with the remaining staff nurses having a moderate degree of patient safety culture. The reasons behind this might be attributed to various factors such as the supervisor's expectations and behaviors that encourage safety, the reported occurrences, the encouragement of teamwork within units, the non-punitive response to errors, and the provision of feedback and communication regarding errors. Supporting our result, **Habibi et al. (2017)** found moderate level of patient safety culture at the unit level as well. This finding goes on line with **Abdelaliem,** and **Alsenany, (2022)** in Saudi Arabia, For the purpose of sustainable nursing practice, they looked at elements influencing patient safety culture from the viewpoints of staff nurses. They discovered a modest level of patient safety culture at the unit level. In order to improve patient safety, they recommended that multidimensional network interventions that address various aspects of patient safety culture and integrate various organizational levels be implemented. Policymakers, hospital administrators, and nurse executives should also consider the promotive actions when implementing interventions to promote patient safety in hospitals.

In contrast, this result is interfered with **Hessels et al. (2019)** who conducted research on how patient safety culture affects adverse patient events and missed nursing care, and who found that health care workers at the unit level had a poor opinion of the culture. In order to minimize the number of patients who receive subpar care and missed nursing appointments, they came to the conclusion that PSC should be improved by prioritized activities. In addition, **Alquwez et al. (2018)** showed that the nurses thought the patient safety culture was lacking. The nurses' perception of the patient safety culture was found to be significantly influenced by a number of factors, including their nationality, level of education, hospital, length of service in the hospital, work area or unit, length of service in the current work area or unit, current position, and direct patient contact or interaction.

The results of this survey indicated that staff nurses thought there was a low level of patient safety culture at the hospital level. This could be brought on by the difficult operating environment, the potential absence or inadequacy of the systems, structures, and procedures needed to create a patient safety culture, or the possibility that a low level of organizational maturity is the cause of the low safety culture. Supporting our findings **Alshyyab et al. (2022)** observed that nurses felt there was a poor patient safety culture at the hospital level. In addition, a study in Egypt by **Hadad, Abd Elrhmaan, Ahmad,** and **Ali, (2021)** researchers looked at staff nurses' perceptions of the patient safety culture at Minia General Hospital and found that nurses generally had a negative opinion of the hospital's patient safety culture, staffing, and collaboration amongst hospital units. They also saw low expectations and actions from supervisors and managers that promoted patient safety.

One of the elements influencing patients'

safety culture, which raises patient safety, is structural empowerment. By emphasizing structural empowerment, healthcare providers can enhance patient safety cultures by improving staff accuracy and performance, which leads to the provision of safer patient services. The environment can support and enhance the safety culture of patients with structural empowerment dimensions. This is accomplished by giving patients more access to opportunities, knowledge, and support as well as more power to increase resources. Examining the aspects of structural empowerment is a topic that has not gotten as much attention as it should, despite its relevance. It is crucial to address issues linked to staff structural empowerment by paying close attention to these dimensions (**Parizadeh & Beshlideh, 2020)**.

The current investigation demonstrated a statistically significant relationship between patient safety culture and structural empowerment. This result agreed with, **Çınar** and **Kutlu (2021)** that noted that the culture of patient safety and the empowerment had a strong and significant relationship and as the same results of **Parizadeh** and **Beshlideh, (2020)** who made the determination of the connection between personnel at a public hospital in Ahvaz and structural empowerment and patients' safety culture. Additionally, **Boonyaphisompan et al. (2022)** who revealed that structural empowerment was the strongest predictor of safety culture. Also, **Dillon-Bleich (2018)** investigated the relationships between structural empowerment, systems thinking, education level, certification, and patient safety. They discovered a strong correlation between patient safety culture and structural empowerment.

There is a study done by **Kim** and **Yu (2021)** to ascertain the relationship between hospital nurses' perspectives on patient safety programs, empowerment, and a just culture. Empowerment and a just culture are positively correlated with patient safety activities. Additionally, there were statistically significant effects of just culture and empowerment on patient safety activities. This may be the result of the attitudes and behaviors that empowered nurses exhibit, which improve clinical judgment and result in overall higher-quality patient care. As a result, healthcare facilities must endeavor to grant nurses greater autonomy.

Furthermore, **Heo** and **Moon's (2019)** The influence of patient safety culture knowledge on safety management activities rose with the operating room nurses' level of empowerment, according to a study including 262 of these nurses. Nurse empowerment is necessary to increase patient safety. This is because nurses who feel empowered to speak up when patient safety is at jeopardy are more likely to engage in activities that improve patient safety. Empowerment also allows nurses to assert themselves **(Amiri et al., 2018).**

Moreover, in line with our findings, a study conducted in Turkey by **Dirik** and **Intepeler (2017)** they noted that staff nurses' evaluations of structure empowerment and patient safety culture were found to be statistically significantly correlated when the work environment and empowerment were studied as factors of patient safety culture. Furthermore, this outcome was consistent with the findings of **Almotairi (2017)**, who investigated how the empowerment affected the culture of patient safety in Saudi public hospitals and discovered a close connection between the two.

In addition, **Armellino, Quinn Griffin,** and **Fitzpatrick (2010),** The results of their study on the association between patient safety culture and structural empowerment among registered nurses working in adult critical care units revealed statistical significance. They noted that a greater safety grade was linked to a higher overall structure empowerment score, and that the safety grade dropped as the structure empowerment score rose. Accordingly, they recommended that the importance of establishing an empowering work environment be demonstrated and that further research should be done to confirm and solidify the connection between the two ideas. The present study's results prematurely establish a connection between improved patient safety culture and the nurses' felt organizational empowerment. Through system initiatives, leaders within an organization may be able to carry out macro-changes.

An awareness of safety culture is necessary to advance patient safety. An organization's safety culture, which is shaped by both individual and group values, attitudes, perceptions, competences, and behavioral patterns, determines how committed and successful its health and safety management is. Various healthcare companies have distinct safety cultures, and having one is essential to providing high-quality care. However, the evaluation of every aspect of safety culture is necessary in order to improve safety results at the beginning (**Boonyaphisompan et al., 2022).**

Quality services are rendered by the health institutions, and they receive happiness. The superiority of the services provided by these healthcare facilities will be enhanced if they have a

safety culture and structural empowerment. According to other studies, the adoption of service quality, structural empowerment, and safety culture all have a favorable impact on nurses' job satisfaction **(Safaat** and **Syamsuddin, 2021)**. This finding is consistent with those findings. In order to reduce circumstances that consistently put patients in danger, patient safety culture blends individual and organizational behavior patterns based on beliefs and values. The likelihood of errors or unanticipated occurrences occurring in patients is higher among nurses with a weak patient safety culture **(Pamungkas, Mahardika, & Dewi, 2022).**

5. Conclusion

Based on the study findings, Structural empowerment has a significant influence on safety culture of the patient. So, the present study confirmed the safety culture of the patient can be enhanced when nurse managers empowered their staff by providing opportunity to learn and grow, support, and necessary resources.

6. Recommendations

Based on data analysis and findings of the study, The hospital administrator, head nurses, and more research can consider the following suggestions.

For the hospital administrator

1. Assessing organizational challenges facing any practices that contribute to the unsuccessful implementation of the patient safety culture.
2. Substituting training on skills that support patient safety culture for standard training in medicine and other clinical domains.
3. Providing a supportive, blame-free environment emphasizing staff's ability to report issues without the fear of punishment.
4. Encouraging a teamwork environment and provide enough staff to handle theworkload.
5. Addressing any safety concerns by encouraging staff nurses to report errors, near misses, and other safety and quality issues.
6. Encouraging a trusting and empowering atmosphere that is safe and supported, with assistance from managers and supervisors and those same managers and supervisors being present and accessible on the front lines.
7. Standardizing hand-off guidelines, as it helps create a culture of patient safety that is strong.

For head nurses:

1. Setting a side time for staff nurses to collaborate with others and provide themthe skills needed to grow in their knowledge and professional practice.
2. Providing staff nurses an opportunity to learn more about the organization by providing the staff nurses with necessary information about significant policies, choices, and objectives of the organization.

Implications for Further Research

1. Studying the factors that could have an impact on the interaction between staff nurses' structural empowerment and the patient safety culture in the hospital environment.
2. Repetition of the study on a larger sample and different settings for morecomparison.
3. Developing guidelines and protocols about the structure empowerment andpatient safety cultures.

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