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## Safety Management Approaches and Its relation to Staff Nurses' Speaking Up For Patient Safety Behaviors at Mansoura University Children Hospital

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### Abstract

**Back ground:** The importance of nurses' tendency to speak up in clinical settings for improving patient safety and treatment quality has drawn a lot of attention. **Aim:** This study aimed to explore safety management approaches and its relation to staff nurses' speaking up for patient safety behaviors at Mansoura University Children Hospital. **Setting:** The study was conducted at Mansoura University Children Hospital. **Research design:** A descriptive correlational research design was used. **Subjects:** Convenience sample of nurses (130) was used. **Tools:** Two tools were used namely: Safety Management Approaches Questionnaire and Speaking Up For Patient Safety Questionnaire. **Results:** As regard control - based safety management, stressing the importance of safety rules and regulations was found the highest. Concerning commitment - based safety management, creating safety awareness was found the highest. As regard speaking up for patient safety behaviors, the one simulated behavior (vignette) was found the highest. The study results revealed that about three quarter of the studied nurses had moderate speaking up for patient safety behaviors level. **Conclusion:** There was statically significant negative correlation between control - based safety management approach and speaking up for patient safety behavior. **Recommendation:** Encourage leaders to use two safety management systems in tandem rather than just one because both of them are crucial for monitoring patient safety, giving nurses communication and assertiveness training to enable them to speak up with competence and confidence, and establishing channels for the private and anonymous reporting of safety issues.

**Keywords:** *Management Approaches, Safety, Speaking Up & Behavior*

### Introduction

Nurses are essential to patient safety because they detect errors early and avoid harm to patients. Therefore, it is thought that one of the key components of enhancing and guaranteeing patient safety in hospitals is safety leadership among nurses. Nurse Managers, in particular, create and distribute patient safety guidelines, emphasize the value of patient safety so that all nurses within the organization can take part, act as role models, and promote involvement in patient safety management-related activities. Thus, nurse managers' leadership is essential because it creates a ward climate that prioritizes patient safety and supports improvement initiative (Kwon & Kim, 2021).

It has drawn a lot of attention to nurses' readiness to speak up in clinical settings since it is crucial to improve patient safety and treatment quality. Speaking up has been referred to by a number of terms, including assertive communication, and employee voice. Speaking up for patient safety in healthcare refers to the use of questions or statements containing facts, concerns, or opinions on safety-related issues in an assertive, flexible, and decision-making manner in clinical settings (Mansour, et al., 2020).

Prior studies have demonstrated that nurses' decisions to speak up can help to reduce unfavorable patient occurrences including infections and prescription mistakes (Lee et al., 2021). Speaking up in the health care is defined as a health care provider expressing concerns for the sake of patient safety and the standard of care after observing or learning about the unsafe or inadequate behavior of others on their teams (Okuyama, et al., 2014).

Speaking up has been defined as the act of firmly expressing worries, raising an issue, or expressing an opinion when one becomes aware of a potentially dangerous clinical scenario. Speaking up in difficult circumstances not only helps colleagues avoid unfavorable outcomes but also keeps them from making mistakes that could have major emotional repercussions. In addition to initiating organizational and individual learning processes, addressing safety problems can help guarantee that future patients (Niederhauser & Schwappach, 2022).

Speaking up in a variety of clinical contexts can significantly help to ensure patient safety. Speaking up and related terms like "raising concerns" and "internal whistleblowing" are interchangeable. For instance, it was mentioned that "whistleblowing" refers to when nurses inform those in positions of

power about unsafe, unethical, or subpar treatment (Tetteh, et al., 2022).

Previous studies have demonstrated that nurses frequently opt to keep quiet and hesitate to speak up, even in spite of these possible advantages. The actions of their immediate supervisors play a significant role in determining whether or not staff members dare to speak up. For instance, managers can encourage nurses to share issues by actively seeking out and valuing nurse feedback, providing coaching, exhibiting genuine leadership, and cultivating a rapport of trust with their subordinates (Ouyang, et al., 2023).

In order to accomplish patient safety goals, organizations must support different leadership behaviors among managers and execute management strategies in the healthcare industry. Studies on human resource management typically note two categories of management approaches: commitment-based management and control-based management. One common top-down strategy is control-based management, which concentrates on monitoring, overseeing, and managing employee behavior. Commitment-based management makes the organization's goals, vision, and mission more widely known to its members and makes it easier for them to internalize patient safety policies and principles (Sonmez Cakir & Adiguzel, 2020).

Under control-based management, supervisors will discipline employees to increase the compliance of nurses. Effective patient safety management requires nursing managers to monitor and oversee organizational members, enhance subjective standards, and adhere to safety regulation (Vaismoradi, et al., 2020).

Managers that use a control-based safety management approach also emphasize the significance of adhering to safety regulations, keep an eye on compliance, and provide staff members with feedback. Additionally, managers who adopt a commitment-based safety management approach demonstrate that patient safety is their top priority by setting an example of responsible behavior, demonstrating their commitment to ensuring the delivery of safe care, motivating staff to take part in safety improvement projects, and raising awareness of safety-related issues (Levovnik, & Gerbec, 2020). When it comes to safety behavior, professionals' perceptions of the hazards (psychological safety) and priorities (climate for safety) may be influenced by both management styles (Alingh, et al., 2018).

In other words, it is thought that both the commitment-based approach, which can promote internal drive, and the control-based approach, which consists of rules and regulations, are significant. Specifically, it is advised that the two management

systems be used in tandem rather than solely utilizing one of them because nurse managers are crucial to provide patients with safe care through close relationships with other members of the organization (Alingh, et al., 2015).

The following are the main reasons why patient safety failures have been attributed to leadership: inadequate support for patient safety event reporting; absence of feedback or response to staff members who raise safety concerns; intimidation of staff members who raise issues; inconsistent prioritization and execution of safety recommendations; ignorance of staff burnout and its impact on safety culture; and so on. This highlights the critical role that managers play in fostering a safe environment for speaking up (Harton, 2020).

### Significance

Despite the fact that patient safety has been acknowledged as a crucial health care concern for nearly 20 years, about one in ten patients in high-income nations still suffer injuries while receiving hospital care. Research indicates that staff members' readiness to speak up in order to improve patient safety is essential because doing so can reduce adverse events and avoidable errors in addition to preventing mistakes like prescription errors (Al Zahrani et al., 2023). However, prior studies have demonstrated that healthcare staff is reluctant to express their concerns or recommendations despite the possibility of patient harm for a variety of reasons, including their hierarchical position, their fear of reprisals, and their concern for threatening their professional relationships (Schwappach & Niederhauser, 2019).

Activities at the organizational or managerial level were recognized by Bisbey et al., (2021) as a crucial part of enabling factors. These include supervisory activities that emphasize the value of safety, call attention to it, and encourage employees to act in ways that promote safety. It is crucial for nursing managers to encourage speaking up.

From our perspectives, among the various healthcare professionals, nurses play an important role in ensuring safe, quality care for patients. Because of their constant presence at the bedside and direct contact with the patients, nurses are usually the first to notice errors and near misses that can affect patient safety; thus, it is important that they are able to voice their concerns and suggestions related to safe patient care not to hesitate. Hence, manager's approaches in safety management affects nurses desire to speak up through being committed or control based approach using which provides an environment promoting compliance with safety goals and motivated nurses to speak up, so this study aimed to explore safety

management approaches and its relation to staff nurses' speaking up for patient safety behaviors at Mansoura University Children Hospital.

#### **Aim of the study**

This study aimed to explore safety management approaches and its relation to staff nurses' speaking up for patient safety behaviors at Mansoura University Children Hospital through:

- Assess staff nurses' perception of their nursing managers' safety management approaches.
- Assess staff nurses' speaking up for patient safety behaviors.
- Explore the relation between nursing managers' safety management approaches and staff nurses' speaking up for patient safety behaviors.

#### **Research questions:**

- Q1:** What is staff nurses' perception of their nursing managers' safety management approaches at Mansoura University Children Hospital?
- Q2:** What is staff nurses' speaking up for patient safety behaviors level at Mansoura University Children Hospital?
- Q3:** Is there a relation between nursing managers' safety management approaches and staff nurses' speaking up for patient safety behaviors at Mansoura University Children Hospital?

#### **Methods**

##### **Design:**

The design used in the study was a descriptive correlational.

##### **Setting:**

The study was conducted at Mansoura University Children Hospital that delivers an extensive spectrum of health services at Delta Region. Mansoura University Children Hospital occupied with 365 beds and 18 departments and classified into two main building as below:

First building contains: three floors: **Ground Floor** that contains out patients, pharmacy, magnetic resonance imaging, blood bank and its laboratory.

**First floor** contains dialysis department, laboratory department, radiology department. **Second floor** contains investigations related to different department. **Lastly third floor** contains: medical intensive care unit, surgical intensive care unit, surgical operation department

Second building contains eight floors. **The ground floor** which contains: emergency department. **First floor** contains: administrative offices. **Second floor** contains: cardiology department, endocrine and diabetic department, blood disorders department. **Third floor** contains: nutrition and infectious diseases department, pediatric surgery department. **Fourth floor contains:** GIT department, genetic department. Fifth floor contains: department (5) and

(6), immunology department, bone marrow transplantation department respectively. **Sixth floor contains:** neonate intensive care unit, economic department. **Seventh floor contains:** nephrology department, neurology department, and cardiac surgery department. **Lastly eighth floor** contains: nursing and physicians residence.

##### **Participants:**

Convenience sample was used of 130 nurses that were available during the time of data collection with inclusion criteria that they have at least one year of experience and willing to participate in the study at Mansoura University Children Hospital.

##### **Tools of data collection:**

Two tools were used for data collection in the present study namely: Safety Management Approaches Questionnaire and Speaking Up For Patient Safety Questionnaire.

##### **Tool I: Safety Management Approaches Questionnaire**

This tool aimed to assess nurses' perceptions of their managers' control and commitment based patient safety management approaches. It consisted of two parts:

**Part I:** It used to identify personal characteristics of the study staff nurses such as, age, duration of employment in this department, work hours per week, educational qualifications, and years of experience.

**Part II: Safety Management Approaches Questionnaire.** It was designed by the researchers based on a comprehensive literature review (Kwon & Kim, 2021; Alingh, Strating, van Wijngaarden, Paauwe & Huijsman, 2018 & Merrill, 2015). It consisted of 32 items to assess nurses' perceptions of their managers' control and commitment based patient safety management approaches. The control based safety management approach consists of three sub scales: stressing the importance of safety rules and regulations (5 items), monitoring compliance (4 items), and providing employees with feedback (3 items). The commitment based safety management approach consists of four sub scales: showing role modeling behavior (6 items), creating safety awareness (6 items), showing safety commitment (5 items), and encouraging participation (3 items). Subscales were rated on a 5-points scale. The 5-points scale ranged from 1 (never true) to 5 (always true), with a higher score indicating stronger control and commitment based safety management approach.

**Tool II: Speaking Up For Patient Safety Questionnaire SUPSQ:** This tool is a validated questionnaire developed by Richard, Pfeiffer & Schwappach, (2021) and aimed to assess the frequency of staff nurses' speaking up for patient safety behaviors. It consisted of three behavior-related scales with 11 items in addition to one

simulated hypothetical behavior (vignette). The 11 items divided into three dimensions: perceived safety concerns (3 items), withholding voice (5 items) and past speaking-up behaviors (3 items). These items were scored on a five- points Likert scale from never (0 times) to very often (> 10 times in the last four working weeks).

**The One simulated behavior (vignette):** This vignette serves as a standardized stimulus and describes a generic situation requiring speaking up and assessing respondents' anticipated behaviors if they would find themselves in a similar situation. Vignette was followed by the 5 questions measured on a 7-points Likert-like scale: (1) how great the potential for patient harm is (1 = very low, 7 = very high); (2) how uncomfortable they would feel to speak up (1 = very comfortable, 7 = very uncomfortable); (3) how likely it would be that they speak up, using words or gestures (1 = very unlikely, 7 = very likely); (4) whether it would be difficult to decide how to react (1=very easy, 7= very difficult). Respondents will also asked to judge whether the situation is realistic on their job (1 = not realistic at all, 7 = very realistic).

The scoring system of the tool based on statistically cut of point ranged from (16-90) and was categorized into three levels as the following:

- Low level of speaking up for patient safety behaviors (<50%) (Scored from 16-44).
- Moderate level of speaking up for patient safety behaviors (50%-75%) (Scored from 45-67).
- High level of speaking up for patient safety behaviors (>75%) (Scored from 68-90).

#### **Validity and Reliability**

Study tools were tested for its face validity by five experts including three professors of nursing administration and two assistant professors of nursing administration all affiliated to faculty of nursing, Mansoura University in the field of the study. The validity of the tools aimed to judge its clarity, simplicity, accuracy, comprehensiveness and accepted by jury committee.

#### **Pilot study**

It was done on 10% of the study participants (13 nurses) to ascertain the clarity, feasibility, relevance, comprehensiveness, applicability of the developed tools and to estimate the time needed to fill the questionnaire sheet, and they were randomly selected and excluded from the study sample and results of the study. Then there were no modifications on tools. Cronbach's alpha was applied to assess the internal consistency of the study tools, which needed to be at least 0.5 and preferably over 0.7 using test- retest. Cronbach Alpha test was calculated for safety management approaches questionnaire ( $\alpha = 0.705$ )

and ( $\alpha = 0.834$ ) for speaking up for patient safety questionnaire which refers to be reliable.

#### **Field work**

Gathering data from nurses by outlining the purpose of the study to each nurse and obtaining their consent, the questionnaires took about 30 minutes to be completed. The data gathered took a month to be completed.

#### **Statistical analysis**

Data were analyzed using with statistical package for social science (SPSS) version 22. The normality of data was first tested with one-sample Kolmogorov-Smirnov test. Descriptive appropriate statistical tests were utilized as frequent, percentage, mean, and standard deviation. As well as inferential statistics were used; the two groups were compared with Student t test and Analysis of Variance (ANOVA test) used for comparison between means of more than two groups. Pearson's correlation coefficient was used to test correlation between variables. The results were considered significant when the probability of error is less than 5% ( $P < 0.05$ ).

#### **Ethical Consideration**

The Mansoura University Faculty of Nursing's Research Ethical Committee granted ethical permission code number 0575. The hospital's responsible administrator granted formal approval to conduct the study. Every participant was made aware that their involvement in the study was entirely voluntary and that they might leave at any time. Every participant received an assurance regarding the privacy of the study sample and the confidentiality of the data acquired throughout the whole research.

## Results

**Table (1): Personal characteristics of the studied nurses (n=130)**

Variables	No.	%
<b>Age in Years</b>		
Less than 30 years	89	68.5
More than 30 years	41	31.5
Mean $\pm$ SD	<b>25.38<math>\pm</math>3.58</b>	
<b>Duration of employment in this department</b>		
2-5 yrs	87	66.9
6-10yrs	25	19.2
more than 10 yrs	18	13.8
<b>Level of education</b>		
Bachelor degree	64	49.2
Technical institute of nursing	66	50.8
<b>Working hours per week</b>		
36 hours per week	107	82.3
40 hours per week	15	11.5
Part time	4	3.1
Others	4	3.1

**Table (2): Mean score of Safety Management Approaches by studied nurses (n=130)**

Safety Management Approaches	No. Items	Score	Range	Mean $\pm$ SD	Mean%
<b>Control - based safety management</b>	<b>12</b>	<b>60</b>	<b>31-55</b>	<b>48.96<math>\pm</math>4.96</b>	<b>81.6%</b>
Stressing the importance of safety rules and regulations	5	25	12-24	19.92 $\pm$ 2.6	79.7
Monitoring compliance	4	20	11-20	16.59 $\pm$ 2.35	82.9
Providing employees with feedback	3	15	8-15	12.45 $\pm$ 2.32	83
<b>Commitment - based safety management</b>	<b>20</b>	<b>100</b>	<b>60-97</b>	<b>80.34<math>\pm</math>9.09</b>	<b>80.34%</b>
Role modeling behavior	6	30	13-30	23.33 $\pm$ 3.47	77.8
Creating safety awareness	6	30	18-30	24.96 $\pm$ 3.33	83.2
Safety commitment	5	25	13-25	20.22 $\pm$ 3.6	80.9
Encouraging participation	3	15	7-15	11.83 $\pm$ 2.27	78.9
<b>Total Safety Management Approaches</b>	<b>32</b>	<b>160</b>	<b>91-148</b>	<b>129.3<math>\pm</math>12.55</b>	<b>80.8</b>

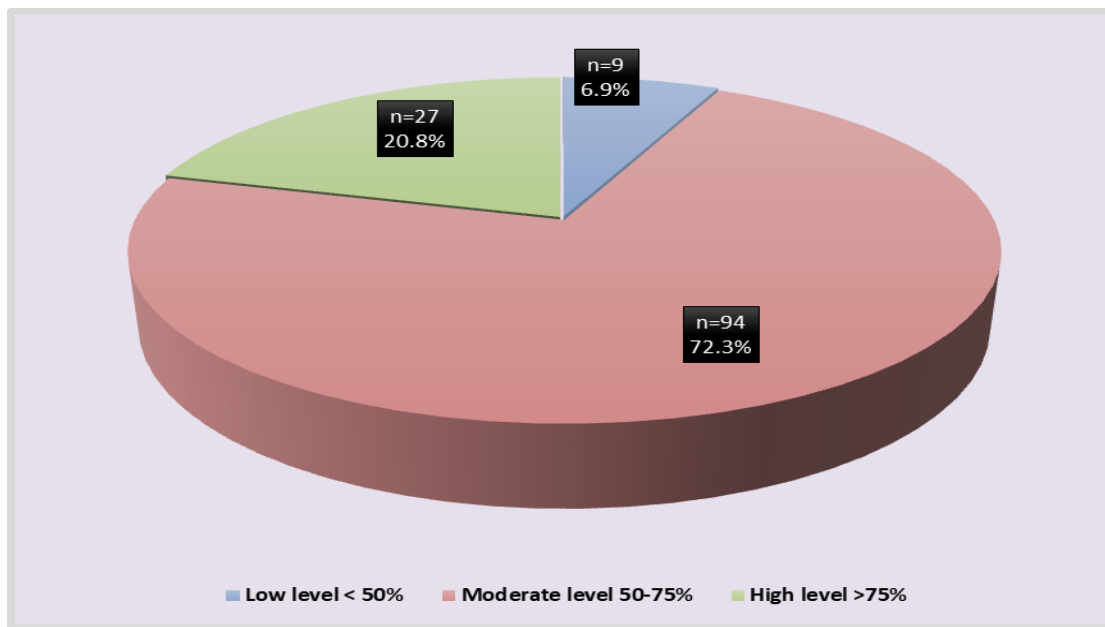
**Table (3): Means score of staff nurses' speaking up for patient safety behaviors (n=130)**

Speaking up for patient safety behaviors	No. Items	Score	Range	Mean $\pm$ SD	Mean%
Perceived safety concerns	3	15	3-15	9.48 $\pm$ 3.63	63.2
Withholding voice	5	25	5-24	16.59 $\pm$ 4.77	66.4
Past speaking-up behaviors	3	15	3-15	10.93 $\pm$ 3.19	72.9
The One simulated behavior (vignette)	5	35	10-33	20.46 $\pm$ 3.95	58.5
<b>Total speaking up for patient safety behaviors</b>	<b>16</b>	<b>90</b>	<b>32-75</b>	<b>57.46<math>\pm</math>10.34</b>	<b>63.8</b>

**Table (4): Means and standard deviations for the hypothetical situation (vignette) for the studied staff nurse (n=130)**

The One simulated behavior (vignette)	Nurses response
	Mean ± SD
You are on a daily round with several doctors and nurses. During the round, the consultant doctor shakes hands with a patient. However, prior to examining the patient's wound the consultant does not apply gloves and/or does not disinfect their hands.	
How realistic is this situation?	2.76±1.32
If nobody acts, how dangerous do you think this situation is for the patient?	5.14±1.82
How likely is it that you try to alert the consultant to the missed hand Disinfection/gloves (using words or gestures)?	5.71±1.89
Would you feel uncomfortable to instruct the consultant to disinfect their hands/ wear gloves?	3.04±1.81
Whether it would be difficult to decide how to react?	3.82±1.46

Vignette was followed by the 5 questions measured on a 7-points Likert-like scale



**Figure (1): Staff nurses' speaking up for patient safety behaviors level (n=130)**

**Table (5): Correlations between safety management approaches and speaking up for patient safety behaviors among the studied staff nurses (n=130)**

	Safety Management Approaches	
	Control -based Safety Management	Commitment - based Safety Management
Speaking up for patient safety behaviors	r	-0.340
	p	0.004**

r=Pearson Correlation

Correlation is significant at the 0.01 level (2-tailed).

**Table (6): Relation between staff nurses' characteristics and their safety management approaches and speaking up for patient safety behaviors (n=130)**

Variables	Safety Approaches	Management	Speaking up for patient safety behaviors
<b>Age in Years</b>			
Less than 30 years	128.35±12.98		59.18±10.92
More than 30 years	131.37±11.43		53.73±7.83
<b>Test of significance</b>	<b>t=1.277, p=0.204</b>		<b>t=2.870, p=0.005**</b>
<b>Duration of employment in this department</b>			
2-5 years	128.3±13.25		57.54±10.66
6-10yrs	135.72±6.3		59.44±10.91
More than 10 years	125.22±12.93		54.33±7.2
<b>Test of significance</b>	<b>F=4.761, p=0.010*</b>		<b>F=1.291, p=0.279</b>
<b>Level of education</b>			
Bachelor degree	126.02±10.13		56.33±7.42
Technical institute of nursing	132.48±13.86		58.56±12.5
<b>Test of significance</b>	<b>t=3.030, p=0.003**</b>		<b>t=1.234, p=0.220</b>
<b>Working hours per week</b>			
36 hours per week	128.8±12.84		58.69±10.35
40 hours per week	136.47±9.74		48.13±5.1
Part time	116.00±0.00		67.00±0.00
Others	129.00±0.00		50.00±0.00
<b>Test of significance</b>	<b>F=3.360, p=0.021*</b>		<b>F=7.356, p=(&lt;0.001)**</b>

*t=student t test, f= One Way ANOVA, \*p significant at <0.05*

**Table (1): Personal characteristics of the studied nurses.** According to the table, a total studied nurse was 130. This table showed that more than half of nurses (68.5%) aged less than 30 years. More than half of them (66.9%) spent 2-5 years in their current department. More than half of them (50.8%) had technical institute of nursing. Concerning working hours per week, more than three quarter of them (82.3%) work 36 hours per week.

**Table (2): Mean scores of safety Management Approaches.** The table showed that as regard control - based safety management, stressing the importance of safety rules and regulations was found the highest (mean =19.92±2.6) whereas providing employees with feedback was the lowest (mean=12.45±2.32). Concerning commitment - based safety management, creating safety awareness was found the highest (mean =24.96±3.33) whereas encouraging participation was the lowest (mean=11.83±2.27).

**Table (3): Mean scores of staff nurses' speaking up for patient safety behaviors.** The table showed that the one simulated behavior (vignette) was found the highest (mean =20.46±3.95) followed by withholding

voice, past speaking-up behaviors and perceived safety concerns respectively (mean =16.59±4.77, 10.93±3.19, 9.48±3.63).

**Table (4): Means and standard deviations for the hypothetical situation (vignette) for the studied staff nurse.** The table showed that the highest mean score was upon the question (How likely is it that you try to alert the consultant to the missed hand Disinfection/gloves (using words or gestures)?) (mean =5.71±1.89). Whereas the lowest was upon the question (How realistic is this situation?) (mean =2.76±1.32).

**Figure (1): Staff nurses' speaking up for patient safety behaviors level.** This figure showed that about three quarter of the studied nurses (72.3%) had moderate speaking up for patient safety behaviors level and (20.8%) of them had high level while (6.9%) had low level.

**Table (5): Correlations between safety management approaches and speaking up for patient safety behaviors among the studied staff nurses.** The table showed that there was statically significant negative correlation between control -

based safety management approach and speaking up for patient safety behavior.

**Table (6): Relation between staff nurses' characteristics and their safety management approaches and speaking up for patient safety behaviors.** This table showed that safety management approaches was statically significant correlated to duration of employment, level of education, and working hours per week of the studied sample, whereas, speaking up for patient safety behavior was statically significant correlated to age, working hours per of the studied sample.

### Discussion:

Nurses are expected to raise concerns so that the plan or intervention can be adjusted before a critical occurrence affects a patient. Nursing management has a big influence on speaking. These consist of supervisory actions that highlight the importance of safety, draw attention to it, and motivate staff members to act in a way that supports safety (Bayram, et al., 2022). Managers' approaches to safety management, whether they be committed or control-based, have an impact on nurses' willingness to speak up by creating an atmosphere that encourages adherence to safety objectives and inspires nurses to speak up, so this study aimed to explore safety management approaches and its relation to staff nurses' speaking up for patient safety behaviors at Mansoura University Children Hospital.

As regard control - based safety management, the current study results revealed that stressing the importance of safety rules and regulations was found the highest whereas providing employees with feedback was the lowest. This may be due to direct supervisors make an effort to encourage subordinates to observe safety regulations and keep an eye on and regulate staff conduct. This is supported by Alingh, van Wijngaarden, van de Voorde, Paauwe, & Huijsman (2018) who stated that safety rules and regulations is the basis of a control-based management approach, which give direction to appropriate safety behaviors. As well, Ajmal, et al., (2022) assured that enforcing adherence to established guidelines and protocols is the first characteristic of the control-based safety management approach.

Moreover, van der Kolk, van Veen-Dirks & ter Bogt, (2019) emphasized that nurse managers highlight the need of adhering to policies and procedures and are increasingly using them as a managerial control tool. In this context, Lee, (2018) reported that safety standards are characterized by actively monitoring employee behavior and providing structure and predictability to work operations. This allows managers to verify that healthcare

professionals are adhering to safety rules and procedures.

Additionally, Bail, et al., (2020) mentioned that nurse managers keep an eye on staff conduct and audit compliance based on entries in computerized patient records and registrations. Nurse feedback regarding their adherence to safety requirements is given based on the outcomes of these monitoring activities. According to Berman, et al., (2021) hospitals have official disciplinary programs that target specific safety risks in the event of repeated non-compliance. Nurses who disobey policies and procedures on a regular basis receive warnings from their immediate managers, reprimands from the board of directors, and eventually face termination or dismissal.

Concerning commitment - based safety management, the current study results revealed that creating safety awareness was found the highest whereas encouraging participation was the lowest. This may be due to raising awareness of and aiding in the internalization of the purpose, vision, and objectives of an organization ensure staff members behave appropriately. This is supported by Alingh, van Wijngaarden, van de Voorde, Paauwe, & Huijsman (2018) who stated that creating safety awareness through creating an intrinsic motivation in nurses is the basis of a commitment-based safety management.

On the same line, Farokhzadian, et al., (2018) mentioned that nurse managers can raise awareness of safety issues by educating staff members about potential dangers to their safety as well as areas where they may improve. Nurse managers can raise awareness of this issue through talking about safety occurrences, offering insight into patient outcome indicators, and comparing data with comparable units in other hospitals. Additionally, Kwon & Kim, (2021) declared that commitment-based safety management is characterized by leaders who prioritize providing safe care and who effectively communicate their vision to staff, for example, by demonstrating that patient safety is highly valued and prioritized over other organizational aspects like production. This type of management focuses on helping an internalization of safety norms and values.

As regard speaking up for patient safety behaviors, the current study results revealed the one simulated behavior (vignette) was found the highest followed by withholding voice, past speaking-up behaviors and perceived safety concerns respectively. This may be due to nurses can face these scenarios daily as the vignettes depicted fictitious healthcare scenarios in which an actor on staff mishandles a patient's care. Bystanders must intervene quickly to prevent possible patient damage.



In this context, **Mannion et al., (2018)** mentioned that the choice to speak up or remain silent about safety concerns typically is an individual consideration, depending on whether the individual nurse feels safe to speak up or not. Whether somebody dares to speak up is influenced by perceived leader behaviors and also by one's personality, sense of commitment, communication skills, taken-for-granted beliefs and prior experiences with speaking up.

In contrast, **Schwappach & Niederhauser, (2019)** showed that compared to other healthcare workers, nurses express their worries about patient safety issues in hospital settings less frequently. Also, **Okuyama, et al., (2014)** argued that nurses may be reluctant to raise concerns about patient safety if they fear that they will be mistreated or fired. In addition, **Ambutu, (2020)** mentioned that one of the things that can lead to bad things happening or a mistake in communication is the reluctance to speak up. Even when nurses are aware of the risks and flaws of such omissions, they often find it difficult to articulate their concerns about patient safety. When nurses openly express their worries about patient safety, it could be an excellent chance to prevent mistakes or learn from them.

As regard the hypothetical situation (vignette), the highest nurses' agreement was upon the question (How likely is it that you try to alert the consultant to the missed hand disinfection/gloves (using words or gestures)?). Whereas the lowest agreement was upon the question (How realistic is this situation?). This may be due to nurses try to avoid causing any harm to patients by alerting the consultant to the missed hand disinfection/gloves.

This is supported by **Umoren, et al., (2022)** who stated that speaking up allows healthcare professionals to address potential errors, unsafe practices, and ethical issues promptly, leading to improved patient outcomes and enhanced overall quality of care. Therefore, by voicing their concerns, healthcare workers provide opportunities for learning and system improvements, thereby contributing to the continuous improvement of healthcare services. In contrast, **Lainidi et al., (2023)** found that nurses were very reluctant to point coworkers to missed hand disinfection and also indicated that they would withhold voice, even at the price of potential patient harm.

The study results revealed that about three quarter of the studied nurses had moderate speaking up for patient safety behaviors level and slightly below one quarter of them had high level while lowest percentage had low level. This may be due to they believe that by raising their concerns and thoughts, they are helping to improve patient safety. In this

regard, **Mascherek & Schwappach, (2017)** found that patient safety concerns were frequently reported by nurses, ranging between sixty two and eighty percentages. However, only fifty five to seventy six percentages of nurses reported speaking up about these concerns, while nineteen to thirty nine percentages withheld their voice.

The study results revealed that there was statically significant negative correlation between control-based safety management approach and speaking up for patient safety behavior. This may be due to both control and commitment-based safety management approaches appear to be important for overseeing patient safety; however, a commitment-based safety management approach appears to be most beneficial for promoting individuals' speaking up attitudes. This is supported by **Lee, et al., (2023)** who discovered that the reluctance of nurses to speak up was negatively correlated with clinical leaders and hospital administration for patient safety. Additionally, nurses who reported abstaining from speaking less frequently expressed greater satisfaction with the general level of patient safety on their unit.

In contrast, **Alingh, et al., (2018)** found that there was no association between control-based safety management and speaking up about patient safety. In this context, **Rutherford, et al., (2012)** reported that nurses hesitated to speak up even when they were aware of patient safety risks. Moreover, **Rabøl et al., (2011)** indicated that, in the case of hesitancy to speak up, insufficient information transfer from residents/nurses to senior physicians could contribute to actual communication errors and/or adverse events. The study results revealed that safety management approaches were statically significant correlated to duration of employment, level of education, and working hours per week of the studied sample, whereas, speaking up for patient safety behavior was statically significant correlated to age, working hours per of the studied sample. This may be due to age earns individuals more respect and the longer they stay in a certain job, the more respect they becomes and the more they are able to express their opinion on issues related to patient safety.

The present study agrees with result done by **Han, (2018)** who reported that age play a significant role in nurses' willingness to speak up. Also, **Horak & Yang, (2019)** found that nurses who are older and have been working longer in a specific position or institution are more respected and their opinions are highly valued so they can express their concerns about safety issues.

## Conclusion

The present study concluded that as regard control - based safety management, stressing the importance of safety rules and regulations was found the highest whereas providing employees with feedback was the lowest. Concerning commitment - based safety management, creating safety awareness was found the highest whereas encouraging participation was the lowest. As regard speaking up for patient safety behaviors, the one simulated behavior (vignette) was found the highest followed by withholding voice, past speaking-up behaviors and perceived safety concerns respectively.

Moreover, the study results revealed that about three quarter of the studied nurses had moderate speaking up for patient safety behaviors level. Additionally, there was statically significant negative correlation between control- based safety management approach and speaking up for patient safety behavior.

## Recommendation

Based on the findings of this study, the following can be recommended: -

- Develop and implement effective interventions that support and encourage speaking-up for patient safety behaviors among nurses through:
- Creating a safe environment where nurses can voice concerns without worrying about retaliation.
- Promoting open communication and giving issues non-punitive responses.
- Giving nurses communication and assertiveness training to enable them to speak up with competence and confidence.
- Establishing channels for the private and anonymous reporting of safety issues.
- Promoting an environment where blame is avoided and mistakes are learned from.
- Reinforcing the importance of speaking up.
- Giving comments on the results of issues that have been raised.
- Including workers in the detection and resolution of safety concerns.
- Giving further patient safety improvements first priority.
- Leaders should put safety first, speak up when needed, and demonstrate their commitment to resolving concerns that are brought to their attention.
- Encourage leaders to use two safety management systems in tandem rather than just one because both of them are crucial for monitoring patient safety.

## Further research:

- Duplicate this study in more than one hospital in different regions of Egypt using larger samples size for more understanding of factors that may prevent nurses from speaking up about safety issues.

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