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Research Article

Developing Strategy: A Guide For Nurse Managers to Manage Nursing Staff’s Work-related Problems

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SUMMARY

Purpose: The purpose of this study was to assess nursing staff’s work-related problems as perceived by their managers and thereafter develop strategies that would serve as a guide for nurse managers to manage these problems.

Methods: A descriptive research design was used. The participants included in the study consisted of the following two groups: Group 1—a convenience sample of 150 first-line managers working at three different hospitals; and Group 2—a panel of experts for the Delphi technique, selected using the Snowball sampling technique. Tools for data collection included the following: Tool 1—questionnaire about nursing staff’s problems; Tool 2—Delphi technique to develop strategies for managing nursing staff’s problems; and Tool 3—opinionnaire format.

Results: The recruited first nurse managers were of the opinion that job stress, work overload, conflict, workplace violence, poor performance, staff turnover, demotivation, lack of empowerment, and staff absenteeism were among the common problems faced by staff nurses at work.

Conclusion: From the expert panelists’ perspectives, the newly developed strategy in this study was considered valid; the researchers recommend the strategy developed in this study to be universalized in different health care settings and used as a guide for nurse managers.

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Introduction

Nursing is a high-pressure job. Contrary to popular belief, nurses’ duties consist of more than just checking vital signs and administering medication. They have many responsibilities to attend: helping patients, assisting in procedures, documenting administering care, as well as filling leadership roles at hospitals, health systems, and other organizations. However, issues at the organizational, state, and national levels have brought about considerable challenges, making it difficult for nurses to do their job effectively. It is essential to first recognize and understand every possible challenge faced by nurses to deal with them efficiently and find the best possible solutions to mitigate them [1].

Workplace-related problems are common nationally and internationally. Among the most frustrating personnel problems is that of absenteeism—the rate at which an individual misses work on an unexpected basis. In the health care industry, this results in the impediment of the provision of health care to patients, specifically the health care institutions that are associated with a shortage of available staff [2]. Work stress, particularly in the nursing profession, has become a major problem that nurses face; excessive pressure, a heavy workload, job insecurity, low levels of job satisfaction, internal conflicts, and lack of autonomy contribute to that stress [3].

In addition, interpersonal conflict is another area of frustration in the nursing profession. It is often considered a negative term because individual interests are perceived to be in conflict or negatively affected. Furthermore, workplace conflict is always associated with lower-quality patient care, higher rates of adverse effects, a higher level of staff burnout, and greater direct and indirect costs of care [4].

Lack of empowerment is a significant work-related problem that nurses may be exposed to. Powerless nurses make for unproductive, discontent nurses, who are more vulnerable to burnout and...
depersonalization. Empowerment for nurses consists of three components: a workplace that has the necessary structures to support empowerment, a psychological belief in one's ability to be empowered, and acknowledgment that there is power in the relationships and care that nurses afford. To help nurses become empowered and use their power for better patient care, a more comprehensive understanding of these three components is required [5].

The nursing shortage is one of the many issues that needs attention and necessitates involvement of all health care parties. Nurses always work in a high-risk environment; they are prone to numerous occupational health hazards that have harmful effects both on their mental and on their physical health, as well as on their productivity and efficacy at work [6]. Workplace violence is an incident of hostility that may be physical, sexual, verbal, emotional, or psychological and it takes place when nurses are abused, threatened, or assaulted in situations related to their work. Such violence upsets the organization in different ways, for example, the loss of competent and trained nurses, a decrease in nursing productivity, and a bad reputation of the organization in society and legal issues related to the safety of employees [7].

In Egypt, nursing as a profession is affected by numerous factors that are considered dilemmas for working as a nurse. These factors included media, public image, social prestige, lack of role models, physician—nurse interaction, ineffective learning environment, risk for violence, exposure to health hazards, conflict, stress, and exposure to infection [8]. Challenging workplace conditions that nurses face in Egypt include little institutional recognition or support, shortage of nurses, insufficient funds, and high turnover of ministers and decision makers at the Ministry of Health and Population (MOHP), which in turn hinders the setting of rules to support nursing reforms, maldistribution of nurses in different health services, poor image and poor public perception of nursing, insufficient salaries, and risks during night shifts [9].

Nurse managers are tasked with the near-impossible to ensure the care provided in the unit is of high quality, keep patients and families satisfied with the care, as well as achieve productivity goals, all while addressing the needs of the staff. [10]. The complex work environment necessitates that nurse managers remain up to date with the latest scientific developments in their field. They must also be able to analyze problems effectively and consequently determine the right course of action for each situation to achieve the most favorable outcome. Thus, nurses working in managerial positions must develop their problem-solving skills. Current literature recommends that nurse manager candidates should receive additional training in several areas including problem-solving skills. This training should be an essential part of orientation programs designed before promotion to managerial positions [11].

Significance of the study

Tailoring strategies to solve nurses’ work-related problems requires a rich understanding of the most common problems that nurses face during their work by their nurse managers who are expected to handle all problems that evolve in their areas of work. Moreover, in Egypt, many nurse managers in different clinical settings are promoted to managerial positions based on their years of experience regardless of their educational or managerial qualifications, thus remain unfamiliar with and untrained in problem solving skills as a paramount managerial requirement. Consequently, effective strategies must be put in place to inform them about ideal processes for managing their staff work-related problems. Thus, the purpose of this study was to assess nursing staffs’ work-related problems as perceived by their managers and thereafter develop strategies that would serve as a guide for nurse managers to manage these problems.

Research questions

Q1. What are the common work-related problems of the nursing staff?

Q2. What are the strategies that can be used by nurse managers to manage nursing staff work-related problems?

Q3. What are the panel of experts’ opinions regarding the newly developed strategy?

Conceptual framework

The American Association of Critical-Care Nurses developed a model for a healthy work environment (HWE), consisting of six standards, which are used by researchers as a conceptual framework for the present study. Strategies for solving work-related problems were derived as criteria through which the six evidence-based essential standards could help to create work and patient care environments that are respectful, safe, and humane to staff and all. These standards include the following: Skilled communication—nurses must be proficient in communication skills (written, verbal, and nonverbal communication) as they are in practical skills. Ineffective professional relationships lead to mistrust, disrespect, stress, and dissatisfaction. True collaboration—this is the process that is based on mutual respect for knowledge and abilities of other professionals who are involved in patients’ care. Nurses must be relentless in pursuing and fostering true collaboration. Effective decision making—nurses must be valued and committed partners in formulating policy, directing and evaluating clinical care, and leading organizational processes. Staffing optimization—staffing process must ensure the effective match between patient needs and nurse competencies. Meaningful recognition—nurses must be recognized and must recognize others for the value each brings to the work of the organization. Authentic leadership—nurse leaders must fully embrace the imperative of an HWE, authentically live it, and engage others in its cultivation. Nurse leaders must be positioned to influence decisions that affect nursing practice and the work environment. [12].

The relationship between the study’s conceptual framework, the developed strategies, and staff nurses’ workplace-related problems was represented as follows: the six HWE standards provided the evidence-based mechanisms for guiding actions and behaviors of nurse managers with their subordinates and considered the origin on which the current developed strategies was based. Therefore, the developed strategies will be the methodological framework to manage different arising work-related problems, including decreasing stress and workload, eliminating sick leave and absenteeism, optimizing staff in the unit, promoting nurses’ satisfaction and retention, improving nurses’ motivation and empowerment, reinforcing team spirit and moral, and reducing interpersonal conflict and workplace violence.

Methods

Study design

The study adopted a descriptive research design.

Setting and samples

The study was conducted at three different hospitals in Egypt, two in the Delta Region and one in Cairo, all which provide secondary health care services.
Hospital (1): it is affiliated to the Ministry of Higher Education. It consists of four buildings: the main building, the specialty hospital building, the emergency building, and the oncology institution. Its bed capacity stands at 1200 beds.

Hospital (2): It is affiliated to the higher authority of educational hospitals and institutions. It consists of four buildings: the main building, the economy building, the outpatient clinics, and the hemodialysis building. Its bed capacity is 863 beds.

Hospital (3): It is affiliated to the Ministry of Health. It includes the health services sector in addition to a research center. Its bed capacity is 945 beds.

The participants included in the study were composed of two groups

**Group 1:** first-line nurse managers: nonprobability convenience sampling technique was used to select 150 first-line nurse managers working at hospital (1) \( n = 50 \), hospital (2) \( n = 50 \), and hospital (3) \( n = 50 \).

**Inclusion criteria:** the study included first-line managers of different ages, different educational qualifications in nursing (including a bachelor and technical degree in nursing), both gender, different marital status, working at different units and departments at the respective hospitals, and who have six or more months of experience at their current position.

**Methods of recruiting nurse managers**

To recruit nurse managers as study participants, the researchers revised the employees’ database within each hospital to specify the nurse managers who met the inclusion criteria. A sampling frame was established for all nurse managers meeting the criteria. The researchers contacted them personally to explain the aims of the study in addition to procure their acceptance to participate in the study.

**Group 2:** experts of nursing management: the snowball sampling technique was used to select the panel experts for the Delphi technique that was used for the development of the strategy.

**Inclusion criteria:** the snowball sampling technique was useful in this research to achieve the inclusion criteria that are listed below:

1. The expert must be either a professor of nursing management at a faculty of nursing in Egypt or have a nursing director position within Egyptian hospital, with at least 1-year experience in the current position.
2. The expert must have a specific interest in the research topic, either through previous research work or practical experience at hospitals.

This technique resulted in a panel of seven professors of nursing management from different nursing faculties across Egypt and eight nursing directors from different hospitals in Egypt. They were then contacted personally to be recruited for the study.

**Ethical consideration**

To conduct the study, this study was approved by the institutional review board of the Menoufia University (Approval no. 86). Written approval was obtained from the medical and nursing authority at the aforementioned study setting following an explanation of the purpose and procedures of the study. The respondents’ rights were protected by ensuring voluntary participation, and informed consent was obtained after explaining the purpose, study procedures, and potential benefits of the study. The respondents were assured that the data would be treated as strictly confidential.

**Measurements/instruments**

1—**Questionnaire about nursing staffs’ problems.**

This was a self-administered questionnaire designed by the researchers after reviewing the relevant literature. This questionnaire was used for conducting a preliminary study about the common nursing staffs’ work-related problems as perceived by first-line nurse managers, and the proposed strategies for managing these problems. It included two open-ended questions, namely:

1. What are the common problems faced by nursing staff?
2. From your point of view, what are the strategies you can use to manage these problems?

The face and content validity of this questionnaire was tested by a panel of five experts in nursing management.

**Scoring of questionnaire:**

The nurse managers’ responses regarding work-related problems were rated on three-point Likert scale as follows:

- Uncommon problems <40%
- Average common 40%—<60%  
- Common problems ≥60%

2—**Delphi technique** to develop the strategies for managing nursing staff problems.

The Delphi technique is a widely used and accepted method for arriving at a consensus of opinion concerning real-world knowledge solicited from experts within certain topic areas [13]. A questionnaire that included strategies for managing nursing staffs’ problems was distributed for each Delphi round.

**Scoring of questionnaire:**

Expert panelists rated each item within strategy on three-point Likert scale from as follows: agree, need of modifications, and disagree. The responses with highest score was considered as follows:

- Agree, which requires to be fixed in the following rounds.
- Need modification, which requires restatement in the following rounds.
- Disagree, which requires to be excluded in the following rounds.

3—**Opinionnaire format.**

This tool was designed by the researchers to validate the new strategy format. It contained items that examined the clarification of the strategy purpose, its comprehensiveness, clarity, and simplicity, along with how comprehensible, applicable, and feasible it was.

**Data collection/procedures**

- The preliminary study was conducted from September 15, 2018, until November 17, 2018.
- The questionnaire concerning the nursing staffs’ problems was distributed to first-line nurse managers to determine the common nursing staffs’ work-related problems. These responses were then analyzed to prioritize and rank the nursing staffs’ problems. Problems that scored ≥60% were considered common problems. The implementation of this scoring method lowered a total of 13 reported problems to nine, which were later included in the developed strategies. In addition, the proposed strategies by first-line managers were used by the researchers as a guide for developing the strategy format.
- The Delphi technique was used to develop the strategies for managing the nursing staffs’ problems. The Delphi process lasted 3 months, starting from December 1 till the end of
Table 1 Distribution of Sociodemographic Characteristics of Studied Nurse Managers (N = 150).

| Sociodemographic characteristics | N   | %  |
|----------------------------------|-----|----|
| **Age (yrs)**                    |     |    |
| 20 to younger than 30            | 36  | 24.0|
| 30 to younger than 40            | 65  | 43.3|
| 40 or older                      | 49  | 32.7|
| **Gender**                       |     |    |
| Men                              | 0   | 0   |
| Women                            | 150 | 100 |
| **Years of experience**          |     |    |
| 1—<5                            | 49  | 32.6|
| 5—<10                           | 56  | 37.4|
| 10 or more                       | 45  | 30.0|
| **Marital status**               |     |    |
| Married                          | 83  | 55.4|
| Single                           | 7   | 4.6 |
| Widow                            | 44  | 29.3|
| Divorced                         | 16  | 10.7|
| **Educational level**            |     |    |
| Technical institute              | 13  | 8.6 |
| Bachelor degree                  | 137 | 91.4|
| Others                           | -   | -   |
| **Department of work**           |     |    |
| Critical and emergency care units| 77  | 51.3|
| Inpatient departments            | 43  | 28.7|
| Outpatient clinics               | 30  | 20.0|
| **Attending workshops regarding human resource management** |     |    |
| Yes                              | 85  | 56.6|
| No                               | 65  | 43.4|

Note: yrs =years.

February 2019, until consensus regarding the strategies was achieved. The Delphi process consisted of three rounds: the first round traditionally begins with an open-ended questionnaire, which is used to elicit the experts’ opinions regarding the strategies that can be used by managers to manage nursing staffs’ problems. Nine of 13 problems were included as the strategies’ dimensions, each of the dimensions included had its own explanatory note and a blank area for experts to write proposed solutions for managing each problem. After receiving the participants’ responses (from experts and first-line managers), researchers organized, refined, and added other strategies derived from previous literature on nursing problems (including published research findings and recommendations and textbooks), and then converted the collected information into a well-structured questionnaire. This questionnaire was used as the survey instrument for the second round. In the second round, each Delphi participant received a questionnaire comprising 79 items and was asked to review the items summarized by the researchers. Accordingly, Delphi panelists were required to rate or “rank-order” items to establish preliminary priorities among items. Each item within strategy was rated on three-point Likert scale from as follows: agree, need of modifications, and disagree. The highest score throughout the three scale was considered. In the third round, each Delphi panelist received a questionnaire that included the items summarized by the researchers in the previous round and was asked to revise their judgments.

The newly designed strategies were validated by an opinionnaire format distributed to the panel of experts after the third round of the Delphi technique.

Data analysis

Results were collected, tabulated, and statistically analyzed by an IBM personal computer and statistical package SPSS 22.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics such as numbers and percentages were used to determine common nursing staff problems, analyze Delphi rounds and the expert panelists’ opinions regarding the face and content validity of the developed strategies.

Results

The distribution of sociodemographic characteristics of the studied nurse managers is displayed in Table 1. As shown in the table, the highest percentage of studied first-line managers were between the age of 30—40 years (43.3%). All of them were women (100%) because the male gender only recently joined the faculty of nursing. Regarding years of experience, most of them had 5—10 years of experience (37.4%). More than half of the studied first-line managers were married (55.4%). In addition, most of them had a bachelor degree in nursing (91.4%). More than half of them were working in critical and emergency care units (51.3%). Lastly, most of them had attended workshops on human resource management (56.6%).

As is evident from Table 2, the most common staff nurses’ work-related problems as perceived by nurse managers were job stress, work overload, staff absenteeism, demotivation, lack of empowerment, staff turnover, workplace violence, staff conflict, and poor staffs’ performance (≥60%). On the other hand, lack of organizational justice, limited resources, nursing shortage, and unclear job description were average common staff nurses’ work-related problems (40—<60%).

Table 2 Staff Nurses’ Work-related Problems as Perceived by Nurse Managers at the Study Setting (N = 150).

| Staff nurses’ work-related problems | Hospital 1 (n = 50) | Hospital 2 (n = 50) | Hospital 3 (n = 50) | Total (n = 150) |
|------------------------------------|---------------------|---------------------|---------------------|-----------------|
| Job stress                         | 50                  | 50                  | 50                  | 150             |
| Work overload                      | 50                  | 47                  | 50                  | 147             |
| Staff absenteeism                  | 48                  | 44                  | 47                  | 139             |
| Nursing shortage                   | 25                  | 25                  | 19                  | 69              |
| Demotivation                       | 50                  | 39                  | 21                  | 110             |
| Lack of empowerment                | 45                  | 38                  | 30                  | 113             |
| Staff turnover                     | 50                  | 20                  | 22                  | 92              |
| Workplace violence                 | 41                  | 38                  | 30                  | 109             |
| Staff conflict                     | 46                  | 43                  | 39                  | 128             |
| Staff poor performance             | 33                  | 39                  | 23                  | 95              |
| Lack of organizational justice      | 25                  | 22                  | 19                  | 66              |
| Unclear job description            | 21                  | 27                  | 15                  | 61              |
| Limited resources                  | 26                  | 20                  | 15                  | 61              |
### Table 3 Number and Percentage Distribution of Experts' Opinions Regarding Items of the Strategy to Solve Nursing Staff's Work-related Problems (Second Round; N = 15).

| Item | Agree | Need modification | Not agree |
|------|-------|-------------------|-----------|
|      | N    | %     | N    | %     | N    | %     |
| **I. Managing stress** | | | | | | |
| a. Develop a supportive climate by promoting openness and trust through discussing problem areas with them. | 15 | 100 | - | - | - | - |
| b. Try to identify the source of the stress and decide how she or he can reduce or eliminate these sources. | 14 | 93.3 | 1 | 6.7 | - | - |
| c. Reducing job stress (e.g., by providing more time and more concrete information, adequate staff). | 11 | 73 | 4 | 27.0 | - | - |
| d. Clarify expectations and explain in detail how they may be expected to be evaluated. | 15 | 100 | - | - | - | - |
| e. Went on break and carry out exercises. | 15 | 100 | - | - | - | - |
| f. Improving coworker relations (by considering coworker compatibility when scheduled work and/or creating a work team). | 14 | 93.3 | 1 | 6.7 | - | - |
| g. Recognize effective performance because failure to reward desirable behavior causes stress. | 14 | 93.3 | 1 | 6.7 | - | - |
| **II. Managing workload** | | | | | | |
| a. Support the concept of “self-scheduling as a strategy to the growing nursing shortage”. | 15 | 100 | - | - | - | - |
| b. Consider permanent shift assignments according to personal needs. | 14 | 93.3 | 1 | 6.7 | - | - |
| c. Personnel work schedules made in consideration of the effect of workload, and work hours. | 15 | 100 | - | - | - | - |
| d. Provide a sufficient number of off-duty hours to allow an uninterrupted sleep cycle of at least 8 h. | 15 | 100 | - | - | - | - |
| e. Ensure the unit has enough staff to handle the workload. | 15 | 100 | - | - | - | - |
| f. Negotiate with upper management that the unit needs extra staff for patient care. | 14 | 93.3 | 1 | 6.7 | - | - |
| g. Orient new hiring staff about on-call strategy. | 15 | 100 | - | - | - | - |
| h. Work is assigned fairly and equitably. | 14 | 93.3 | 1 | 6.7 | - | - |
| **III. Managing absenteeism** | | | | | | |
| a. Try to solve transportation problems. | 15 | 100 | - | - | - | - |
| b. Enriching the staff nurse’s job by increasing its responsibility, variety, or challenge. | 15 | 100 | - | - | - | - |
| c. Considering enough number of staff nurses per shift and overtime. | 15 | 100 | - | - | - | - |
| d. There is flexibility to take permission during shift. | 14 | 93.3 | 1 | 6.7 | - | - |
| e. Being a good role model by rarely taking sick days and attending late. | 15 | 100 | - | - | - | - |
| f. Try to solve social problems that contribute to increased absenteeism. | 14 | 93.3 | 1 | 6.7 | - | - |
| g. Enforcing absenteeism control policies (e.g., carrying through on employee discipline when there is an attendance problem). | 15 | 100 | - | - | - | - |
| h. Creating a norm of excellent attendance (e.g., by emphasizing the negative impact of a nurse not coming to work). | 15 | 100 | - | - | - | - |
| i. Rewarding good attendance with providing bonus. | 15 | 100 | - | - | - | - |
| j. Implement sick leave policy that is strictly understood. | 15 | 100 | - | - | - | - |
| k. Consider employee’s attendance during the performance appraisal. | 15 | 100 | - | - | - | - |
| **IV. Managing conflict among subordinates** | | | | | | |
| a. Protect each party's self-respect. | 15 | 100 | - | - | - | - |
| b. Deal with a conflict of issues not a personality. | 15 | 100 | - | - | - | - |
| c. Do not put blame or responsibility for the problem on the participants. | 14 | 93.3 | 1 | 6.7 | - | - |
| d. Allow open and complete discussion of the problem from each participant. | 14 | 93.3 | 1 | 6.7 | - | - |
| e. Maintain equity in the frequency and duration of each party presentation. | 15 | 100 | - | - | - | - |
| f. Encourage full expression of positive and negative feelings in an accepted atmosphere. | 15 | 100 | - | - | - | - |
| g. Make sure both parties listen actively to each other's words. | 15 | 100 | - | - | - | - |
| h. Encourage parties to provide frequent feedback to each other’s comments. | 15 | 100 | - | - | - | - |
| i. Give positive feedback to participants regarding their cooperation in solving the conflict. | 15 | 100 | - | - | - | - |
| j. Follow-up on the progress of the plan to solve conflict. | 15 | 100 | - | - | - | - |
| k. Help the conflict parties develop alternative solutions, select a mutually agreeable one, and develop a plan to carry it out. | 14 | 93.3 | 1 | 6.7 | - | - |
| **V. Managing not empowered staff** | | | | | | |
| a. Giving staff authority, tools, and information they needed to do their jobs. | 12 | 80 | 3 | 20.0 | - | - |
| b. Delegate assignments to provide learning opportunities and allow employees to share in the satisfaction derived from achievement. | 15 | 100 | - | - | - | - |
| c. Delegate power and share information. | 14 | 93.3 | 1 | 6.7 | - | - |
| d. Managers must convey appropriate attitudes and develop the right interpersonal skills. | 14 | 93.3 | 1 | 6.7 | - | - |
| e. Present the powerful picture to others. | 14 | 93.3 | 1 | 6.7 | - | - |
| f. Maintaining democracy environment. | 15 | 100 | - | - | - | - |
| g. Maintain personal energy. | 14 | 93.3 | 1 | 6.7 | - | - |
| h. Enhance open communication. | 15 | 100 | - | - | - | - |
| i. Maintain a sense of humor. | 15 | 100 | - | - | - | - |
| **VI. Managing demotivated staff** | | | | | | |
| a. Integrate the staff’s needs and wants with the organization’s interests and purpose. | 15 | 100 | - | - | - | - |
| b. Remove traditional blocks between the employee and the work to be performed. | 15 | 100 | - | - | - | - |
| c. Have clear expectations for workers, and communicate these expectations effectively. | 15 | 100 | - | - | - | - |
| d. Develop group goals and projects that will build a team spirit. | 5 | 34.0 | 10 | 66.0 | - | - |
| e. Know the uniqueness of each employee. Let each know that you understand his/her uniqueness. | 15 | 100 | - | - | - | - |
| f. Be certain that employees understand the reason behind decisions and actions (e.g., reward and punishment). | 15 | 100 | - | - | - | - |
| g. Be consistent in handling undesirable behavior. | 15 | 100 | - | - | - | - |
| h. Be fair and consistent when dealing with all employees. | 15 | 100 | - | - | - | - |
| i. Provide learning opportunities that promote employees’ growth. | 15 | 100 | - | - | - | - |
| j. Provide opportunity for participation and input from all subordinates in decision making. | 15 | 100 | - | - | - | - |
| k. Whenever possible, give subordinates recognition and credit. | 15 | 100 | - | - | - | - |
| **VII. Managing workplace violence** | | | | | | |
| a. Establish and maintain a violence prevention program as part of their facility’s safety policy. | 15 | 100 | - | - | - | - |
| b. Establishes a plan for maintaining security in the workplace. | 15 | 100 | - | - | - | - |
| c. Ensure that nurses receive specific training concerning the content of violence prevention programs and its implementation. | 15 | 100 | - | - | - | - |
| d. Decrease the threat to worker safety. | 3 | 26.6 | - | - | 12 | 73.4 |
The experts’ opinions regarding items to be included in the strategy to solve nursing staff’s work-related problems are illustrated in Table 3, which displays the second Delphi round with a response rate of 100%. Most experts (95.2%) agreed on most of the proposed items to manage staff problems after they had been summarized by the researchers following the first round. The total percentage for modified items was 3.9%, whereas the total percentage for disagreed on items was 1.9%. One item of the proposed strategy (decrease the threat to worker safety) with percentage 73.4% was disagreed on by the panel of experts, thus it was excluded from the strategy in the third round. The number of modified items came in at two as follows, representing 66.0% and 54.0%, receptively: (1) develop group goals and projects that will build a team spirit and (2) creates and disseminates a clear policy that violence, verbal and nonverbal threats, and related actions, will not be tolerated.

Final experts’ opinions regarding items to be included in the strategy to solve nursing staff’s work-related problems are shown in Table 4, that represents the round three with a response rate of 100%. This represents the final draft of the strategy to manage nursing staff’s work-related problems developed by the researchers. The total percentage of panel of experts’ agreement regarding the developed strategy was 98.9%, whereas modified items stood at 1.1%.

The panel of experts’ opinions regarding face and content validity of the developed strategy are presented in Table 5. According to this table, the developed strategy was valid from the panel of experts’ perspectives as all of them [100%] agreed that the strategy is comprehensive, clear, simple, understandable, applicable, and feasible.

### Discussion

Workforce issues and challenges at the workplace are significant because they have an important impact on nurses’ ability to deliver safe, effective, and high-quality care. Maintaining a conducive work environment is the shared responsibility of employers, management, and staff. Staff nurses have a paramount role in keeping a supportive work environment, but nurse managers can certainly have a significant impact [12]. Thus, the aim of this study was to assess nursing staff’s work-related problems as perceived by their managers and thereafter develop strategies that would serve as a guide for nurse managers to manage these problems.

With regards to the first study question, the common staff nurses’ work-related problems as perceived by nurse managers were job stress, work overload, staff absenteeism, demotivation, lack of empowerment, staff turnover, workplace violence, staff conflict, and staff poor performance. Although lack or organizational justice, limited resources, nursing shortage, and unclear job description were average common problems. From the researchers’ point of view, the selected study hospitals were large public hospitals with high patient flow, thus these problems were common.

The current findings was in agreement with the study conducted by Mahran et al [9], who reported that the most common challenges and crisis facing critical care nurses were large number of patients in intensive care units, work overload, working atmosphere filled with tension and stress, fear of the possibility of infection from patients, increased working hours and long shift, and have conflict between nurses and doctors.

The study carried out by Rani and Thyagarajan [14] was in line with present study findings, which reported that most nurses complained of a heavy workload, which is considered the primary contributing factor for work-related stress. Similarly, results from the study performed by Godwin et al [15] reinforced the proposition that nurses experienced an above-average level of work-related stress. Accordingly, the study by Vernekar and Shah [16] concluded that 98.4% (from a total of 253 nurses) experienced moderate to very severe stress. In addition, increased nursing workload is one of the main challenges of national and international nursing. The study conducted by Madadzadeh et al [17] concluded that 83.3% of a total of 80 respondent nurses reported a high workload.

| Item                                                                 | Agreed N % | Need modification N % | Not agreed N % |
|----------------------------------------------------------------------|------------|-----------------------|----------------|
| e Creates and disseminates a clear policy that violence, verbal and nonverbal threats, and related actions, will not be tolerated. | 7 46.0     | 8 54.0                | -              |
| f Track their progress in reducing work-related assaults.           | 15 100     | -                     | -              |
| g Ensures that no reprisals are taken against employees who report or experience workplace violence. | 15 100     | -                     | -              |
| h Encourages prompt reporting of all violent incidents and recordkeeping of incidents to assess risk and to measure progress. | 14 93.3    | 1 6.7                 | -              |

**Table 5** According to this table, the developed strategy was valid from the panel of experts’ perspectives as all of them [100%] agreed that the strategy is comprehensive, clear, simple, understandable, applicable, and feasible.
Table 4  Number and Percentage Distribution of Experts' Opinions Regarding Items of the Strategy to Solve Nursing Staff's Work-related Problems (Third Round; N = 15).

| Item | Agree | Need modification | Not agree |
|------|-------|------------------|-----------|
| N   | %     | N                | %         | N          |

I. Managing stress
- a. Develop a supportive climate by promoting openness and trust through assessing problems with them. 15 100  -  -  -
- b. Try to identify the source of the stressful situation and try how she or he can reduce or eliminate these sources. 15 100  -  -  -
- c. Reduce job stress (e.g., by providing more time and more concrete information, adequate staff). 15 100  -  -  -
- d. Clarify expectations and explain in detail how they may be expected to be evaluated. 15 100  -  -  -
- e. Went on break and carryout exercises. 15 100  -  -  -
- f. Improving coworker relations (by considering coworker compatibility when scheduled work and/or creating a work team). 15 100  -  -  -
- g. Recognize effective performance because failure to reward desirable behavior causes stress. 14 93.3 1 6.7  -
II. Managing workload
- a. Support the concept of "self-scheduling as a strategy to the growing nursing shortage". 15 100  -  -  -
- b. Enriching the staff nurse's job by increasing its responsibility, variety, or challenge. 15 100  -  -  -
- c. Considering enough number of staff nurses, shift and overtime. 15 100  -  -  -
- d. There is flexibility to take permission during shift. 14 93.3 1 6.7  -
- e. Being a good role model by rarely taking sick days and attending late. 15 100  -  -  -
- f. Try to solve social problems that contribute to increased absenteeism. 14 93.3 1 6.7  -
- g. Enforcing absenteeism control policies (e.g., carrying through on employee discipline when there is an attendance problem). 15 100  -  -  -
- h. Creating a norm of excellent attendance (e.g., by emphasizing the negative impact of a nurse not coming to work). 15 100  -  -  -
- i. Rewarding good attendance with providing bonus. 15 100  -  -  -
- j. Implement sick leave policy that is strictly understood. 15 100  -  -  -
- k. Consider employee's attendance during the performance appraisal. 15 100  -  -  -
III. Managing absenteeism
- a. Try to solve transportation problems. 15 100  -  -  -
- b. Enriching the staff nurse's job by increasing its responsibility, variety, or challenge. 15 100  -  -  -
- c. Personnel work schedules made in consideration of the effect of workload, and work hours. 15 100  -  -  -
- d. Provide a sufficient number of off-duty hours to allow an uninterrupted sleep cycle of at least 8 h. 15 100  -  -  -
- e. Ensure the unit has enough staff to handle the workload. 14 93.3 1 6.7  -
- f. Negotiate with upper management that the unit needs extra staff for patient care. 15 100  -  -  -
- g. Orient new hiring staff about on-call strategy. 14 93.3 1 6.7  -
- h. Work is assigned fairly and equitably. 15 100  -  -  -
IV. Managing conflict among subordinates
- a. Protect each party's self-respect. 15 100  -  -  -
- b. Deal with a conflict of issues not a personality. 15 100  -  -  -
- c. Do not put blame or responsibility for the problem on the participants. 14 93.3 1 6.7  -
- d. Allow open and complete discussion of the problem from each participant. 14 93.3 1 6.7  -
- e. Maintain equity in the frequency and duration of each party presentation. 15 100  -  -  -
- f. Encourage full expression of positive and negative feelings in an accepted atmosphere. 15 100  -  -  -
- g. Make sure both parties listen actively to each other's words. 15 100  -  -  -
- h. Encourage parties to provide frequent feedback to each other's comments. 15 100  -  -  -
- i. Give positive feedback to participants regarding their cooperation in solving the conflict. 15 100  -  -  -
- j. Follow-up on the progress of the plan to solve conflict. 15 100  -  -  -
- k. Help the conflict parties develop alternative solutions, select a mutually agreeable one, and develop a plan to carry it out. 15 100  -  -  -
V. Managing not empowered staff
- a. Giving staff authority, tools, and information they needed to do their jobs. 15 100  -  -  -
- b. Delegate assignments to provide learning opportunities and allow employees to share in the satisfaction derived from achievement. 15 100  -  -  -
- c. Delegate power and share information. 14 93.3 1 6.7  -
- d. Managers must convey appropriate attitudes and develop the right interpersonal skills. 15 100  -  -  -
- e. Present the powerful picture to others. 15 100  -  -  -
- f. Maintaining democracy environment. 15 100  -  -  -
- g. Maintain personal energy. 14 93.3 1 6.7  -
- h. Enhance open communication. 15 100  -  -  -
- i. Maintain a sense of humor. 15 100  -  -  -
VI. Managing demotivated staff
- a. Integrate the staff's needs and wants with the organization's interests and purpose. 15 100  -  -  -
- b. Remove traditional blocks between the employee and the work to be performed. 15 100  -  -  -
- c. Have clear expectations for workers, and communicate these expectations effectively. 15 100  -  -  -
- d. Develop group goals and projects that will build a team spirit. 15 100  -  -  -
- e. Know the uniqueness of each employee. Let each know that you understand his/her uniqueness. 15 100  -  -  -
- f. Be certain that employees understand the reason behind decisions and actions (e.g., reward and punishment). 15 100  -  -  -
- g. Be fair and consistent when dealing with all employees. 15 100  -  -  -
- h. Provide learning opportunities that promote employee growth. 15 100  -  -  -
- i. Provide opportunity for participation and input from all subordinates in decision making. 15 100  -  -  -
- j. Whenever possible, give subordinates recognition and credit. 15 100  -  -  -
- k. Be consistent in handling undesirable behavior. 15 100  -  -  -
VII. Managing workplace violence
- a. Establish and maintain a violence prevention program as part of their facility's safety policy. 15 100  -  -  -
- b. Establishes a plan for maintaining security in the workplace. 15 100  -  -  -
The present study found absenteeism as the third highest work-related problem. Accordingly, Kurcgant et al [18] revealed that absenteeism is a world-wide problem increasing at an alarming rate, which could result in the hindrance of delivery of health care to patients, particularly in health care organizations associated with shortage of number of available health staff. Furthermore, ineffective routine, work pressure, inability to manage the working tasks, as well as an uncomfortable environment have a major influence on the rates of absence.

The present study findings showed staff conflict as a work-related problem. In accordance, nurses in the study conducted by Jerrg et al [19] reported that the conflicts they experienced were mainly with other health care professionals, with a majority more specifically reporting intragroup conflicts with physicians. In light of this, our study results may be interpreted as follows: in hospitals, individual professionals have different goals, expectations, values, and beliefs making conflict unavoidable when working as a team.

This study shows that lack of empowerment was a common work-related problem among nurses as reported by first-line managers. Fittingly, Al-Dweik et al [20] concluded that lack of nurses’ empowerment is a significant problem and many nurses do not feel empowered and feel that organizational support is lacking. Moreover, when nurses are not properly empowered, many negative consequences will ensue, such as feelings of lack of control and having little influence on outcomes, which in turn leads to frustration at work, decreased job satisfaction, and increased risks of burnout.

Regarding the problem of nurses’ demotivation, it represented a common work-related problem according to first-line managers’ opinion, which contradicted the findings of Weldegebriel et al [21] about nurses’ work motivation. The latter study revealed that most nurses were intrinsically motivated, and about half of the respondents also reported external work motivation. The contrasting study findings can be attributed to differences in working conditions, policies, and regulations that govern nursing jobs.

Violence was reported as a common problem within the study’s settings. This problem was also evident in the study conducted by Fute et al [22], who reported that, a significant proportion of nurses faced violence while providing care at public health facilities. In addition, this exposure to violence perpetrated by their patients or relatives was 86.0% alone and 80.0% among physician’s violence in different health care settings in Beni Suef Governorate, Egypt [23].

Health care workers usually work in an unsafe environment because of a lack of security guards in some departments or ineffective security staff, as security is unarmed and patients are usually accompanied by several relatives. With a lack of awareness in Egypt concerning the nature of the health care service and its complications, there is an increased risk of misunderstanding and misconception of rules and regulations that govern health care facilities, which can lead to certain types of violence [24].

This study used the Delphi technique, which can usefully influence many areas for managing clinical activity and solving operational problems by identifying and obtaining agreement on the underlying factors and strategies of resolutions. In the same way, Sim et al [25] used the Delphi technique in their study to conclude that consensus was achieved between nurses on the most important concepts, which can provide the basis for measuring the quality and safety of nursing practice in a comprehensive way. The Delphi technique was also used to reach the findings of Bjorkman et al [26], which presented a consensus view of tele-nurses’ experiences of important obstacles and prerequisites in their work environment.

With reference to the second study question, nurse managers from different study settings suggested certain strategies for managing nursing staff’s work-related problems, which were later organized by the researchers and validated by expert panelists. In addition, reviewing related literature by the researchers helped in formulating the current strategies in light of the present study conceptual framework (The American Association of Critical-Care Nurses’ 6 HWE standards). The developed strategies were in

| Table 4 (continued) | Agree | Need modification | Not agree |
|---------------------|-------|-------------------|----------|
| c. Ensure that nurses receive specific training concerning the content of violence prevention programs and its implementation. | 15 | 100 | - | - | - |
| d. Creates and disseminates a clear policy of verbal and nonverbal threats and related actions will not be tolerated. | 15 | 100 | - | - | - |
| e. Track their progress in reducing work-related assaults. | 15 | 100 | - | - | - |
| f. Ensures that no reprisals are taken against employees who report or experience workplace violence. | 15 | 100 | - | - | - |
| g. Encourages prompt reporting of all violent incidents and record keeping of incidents to assess risk and to measure progress. | 14 | 93.3 | 1 | 6.7 | - |

VIII. Managing poor performance

a. Determine obstacles that interfere with good performance. | 15 | 100 | - | - | - |
| b. Confront nurses who have poor performance privately. | 15 | 100 | - | - | - |
| c. Counsel the employee privately, verbally and in writing, concerning professional and nonprofessional behavior. | 15 | 100 | - | - | - |
| d. Whenever possible engage underperformed nurses in educational seminars, workshops or clinical educational programs. | 15 | 100 | - | - | - |
| e. Provide the employee with time to complete a self-evaluation during work. | 15 | 100 | - | - | - |
| f. Follow-up progress of staff performance. | 15 | 100 | - | - | - |
| g. Evaluate staff performance based on specific standards. | 15 | 100 | - | - | - |
| h. Use objective and subjective methods for capturing data about staff performance. | 15 | 100 | - | - | - |

IX. Managing turnover

a. Maintain a safe and healthy work environment that makes the nurses feel good about being there. | 14 | 93.3 | 1 | 6.7 | - |
| b. Place nurses in the ideal roles for their talents and interests, for greater job satisfaction and be less likely to burn out or quit. | 15 | 100 | - | - | - |
| c. Being open about everything related to the unit and hospital to develop enthusiasm. | 15 | 100 | - | - | - |
| d. Make the work environment more enjoyable for nurses. | 15 | 100 | - | - | - |
| e. Advocate for nurses if decisions at the executive level might impact their jobs, duties, or earnings. | 14 | 93.3 | 1 | 6.7 | - |
| f. Provide constructive performance feedback not only from the direct boss, but also from several quarters. | 14 | 93.3 | 1 | 6.7 | - |
| Total | 98.9% | 1.1% | 0% |
ward managers are required to use nursing staff abilities and build workplace and assist and recognize nurses who handled the introduction of policies that would address absenteeism in the systems such as incident reporting systems to improve interpersonal collaboration, and effective decision making. The study by Shah [28] suggested different strategies than the current one for dealing with the workers, and focus more on the goal of the task and the expected level of provided care.

The developed strategies for boosting nurses’ empowerment in the present study stemmed from the standards of skilled communication, meaningful recognition, and authentic leadership, which was in agreement with those of Al-Dweik et al [20], who showed that nursing leaders play a significant role in creating a positive work environment by emphasizing self-related performance and authentic leadership to enable nurses to perceive more access to workplace empowerment structures.

By reference to current strategies for managing demotivated staff, they were originated from various standards within the HWE conceptual framework. The study by Drake [29] coincided with current strategies, which reported that managers should have clear expectations for workers and communicate these expectations effectively, be fair and consistent when dealing with all employees, provide opportunity for participation and input from all subordinates in decision making whenever possible, give subordinates recognition and credit, and develop the concept of teamwork and goal importance.

In the same context regarding the previous strategies, the study conducted by Adjei et al [30] recommended that hospital management should continue to praise and recognize the nurses individually or as a team for their achievement and contribution toward the organization. In addition, career development, job enrichment, and providing greater autonomy would also enhance nurses’ performance level in their jobs. It is suggested that implementing interventions in terms of training, guidance, and counseling would be able to produce motivated and high-performing nurses in the hospitals.

Regarding the topic of violence management, the strategy at hand focused primarily on being proactive in dealing with violence events and reinforcing protection and safety measures for the staff, which was in correspondence with the study by Boafo and Hancock [31], which recommended various strategies for managing violence as follows: ensuring a safe and respectful workplace environment, as well as integrating comprehensive prevention programs, reporting mechanisms, and disciplinary policies, policymakers and other stakeholders should establish health and safety programs for the prevention and management of workplace violence. Finally, according to the present study, it is important that security is boosted at various governmental hospitals, especially the regional ones. It is also advisable to give precedence to women and young nurses.

Lastly, on managing turnover as a work-related problem in the study settings, the current measures focused on maintaining workplace environment with necessary elements that can keep nurses from leaving their job, which mainly based on all the standards of HWE. In agreement, Bogonko and Kathure [32] recommended to improve salaries and allowances (terms of service) proportional with qualifications and experience, review and improve scheme of service for nurses for clear career advancement, support and recognize nurses, create more training opportunities such as seminars/updates and workshops, and award recognition to those who develop their skills.

**Study implications**

The developed strategy is recommended to be adopted for newly appointed first-line nurse managers during their transition from practicing nursing roles to managerial roles, as well as for different nurses in managerial positions as an evidence-based tool to deal with existing workplace-related problems. Health care organizational policies need to be refined to be more flexible in adopting different strategies. The spread of COVID-19 has put new pressures on already strained health systems across the world. So far, hospitals are facing severe crises trying to deliver necessary

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Table 5  Panel of Experts’ Opinion Regarding Face and Content Validity of the Developed Strategy (N = 15).

| Items | Yes | To some extent | No |
|-------|-----|----------------|----|
| Does the designed strategy clarify its designed purpose? | 15 | 100 | - |
| Is it comprehensive? | 15 | 100 | - |
| The linguistic style used in the strategy is: | | | |
| - Clear | 15 | 100 | - |
| - Simple | 15 | 100 | - |
| - Understandable | 15 | 100 | - |
| - Applicable | 15 | 100 | - |
| Is it feasible? | 15 | 100 | - |
| Do you recommend it to be applied as a guide for nurse managers? | 15 | 100 | - |
| Total | 15 | 100 | - |

accordance with the assumption by Munro and Hope [27], who proposed that developing an HWE in which the nursing staff feels supported physically and emotionally, where one feels safe, respected, and empowered is a crucial role of nurse managers who are always looking for effective strategies and solutions for advocating their staff nurses. In addition, nurse managers should uphold the responsibility to strive for a positive work environment for their subordinates.

The present study developed various strategies for managing problem of absenteeism that derived from the standards of authentic leadership, meaningful recognition, and true collaboration, which agreed with the findings of Vernekar and Shah [16], who found that most nurses adopt the following stress management strategies: identify the source of stress and avoid unnecessary stress, manage time better, adjust standards and attitudes, and express feelings instead of bottling them up. In the same line, Madadzadhe et al [17] concluded that a deep and comprehensive imbalance between resources and tasks and expectations has been perceived by the participants to be the main source of work overload and further recommended that paying more attention to resource allocation, education of the quality workforce, and commitment with job description by managers is of paramount importance.

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care, whereas managers are making heart-breaking decisions on how to allocate scarce resources. It would be helpful to replicate this study at different hospitals with larger sample size to assess the emerging nursing staff's problems in times of crises and refining current strategies to be suitable to deal with emerging problems during times of adversity.

**Study limitations**

The use of nonprobability convenience sampling and small study sample size may limit the generalization of the study findings. In addition, different policies in health care settings from which nurse managers were recruited limited the possibility of reaching the most effective strategies as they listed only the strategies that were available to them.

**Conclusion**

In the light of the present study, it can be concluded that the nurse managers who participated in this study perceived job stress, work overload, conflict, workplace violence, poor performance, staff turnover, demotivation, lack of empowerment, and staff absenteeism as common problems faced by staff nurses at work. On the other hand, other problems such as lack of organizational justice, unclear job description, the nursing shortage, and limited resources were less common. The developed strategy to manage staff nurses’ work-related problems was valid and in line with the panel of experts’ opinions and perspectives; all of the experts agreed that the strategy was comprehensive, clear, simple, understandable, applicable, and feasible.

**Conflict of interest**

The researchers declared no conflict of interest.

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**References**

1. Gormley DK. Are we on the same page? staff nurse and manager perceptions of work environment, quality of care and anticipated nurse turnover. J Nurs Manag. 2011;19(1):33–40. https://doi.org/10.1111/j.1365-2844.2010.01163.x

2. Kanwal N, Riaz G, Riaz MS, Safdar S. Identify the causes of absenteeism in nurses majo hospital Lahore Pakistan. Int J Soc Sci Manag. 2017;4(2):110–14. https://doi.org/10.3126/ijssm.v4i2.17171

3. Olayinka AO, Osamudiamen OS, Ojoadeleke A. Occupational stress management among nurses in selected hospital in Benin city, Edo state, Nigeria. Eur J Exp Biol. 2013;3:473–81.

4. Fassier T, Azoulay E. Conflicts and communication gaps in the intensive care unit. Curr Opin Crit Care. 2010;16(6):654–65. https://doi.org/10.1097/MCC.0b013e328340440

5. Smith MJ. Nursing and change: is it time to revisit empowerment? Int J Nurs Sci. 2014;1(2):134–36. https://doi.org/10.1016/j.ijnss.2014.05.011

6. Tan CC. Occupational health problems among nurses, Scand J Work Environ Health. 1991;17(4):221–30.

7. Roche M, Diers D, Duffield C, Paul C. Violence towards nurses, the work environment, and patient outcomes. J Nurs Scholarsh. 2010;42(1):13–22. https://doi.org/10.1111/j.1477-0265.2009.01321.x

8. Shukri R, Bakkar S, El-Damen MA, Ahmed SM. Attitudes of students at Sultan Qaboos University towards the nursing profession. Sultan Qaboos Univ Med J. 2013;13(4):539–44.

9. Mahran GS, Taher AA, Saleh NM. Challenges and work crisis facing critical care nurses. Egypt Nurs J. 2017;14:235–41. https://doi.org/10.4103/ENJEN_27_17

10. Schmalenberg C, Kramer M. Nurse manager support: how do staff nurses define it? Crit Care Nurse. 2009;29(4):61–9. https://doi.org/10.4037/ccn2009366

11. Marquis B, Huston C. Leadership roles and management functions in nursing: theory and application. 9th ed. Philadelphia: Lippincott Williams&Wilkins; 2019.

12. American Association of Critical-Care Nurses. AACN standards for establishing and sustaining healthy work environments: a journey to excellence. 2nd ed. CA: AACN; 2019.

13. Hsu CC, Sandford BA. The Delphi technique: making sense of consensus. Practical Assess, Rese Evaluation J. 2017;12(10):1–8. https://doi.org/10.7275/pdz9-0990

14. Rani D, Thyagarajan V. Influence of workplace stress on well-being of nursing staff. JASRD. 2017;4(7):50–8. https://doi.org/10.26836/jasrd/2017/v4/i7/4706

15. Godwin A, Suik LA, Selorm FH. Occupational stress and its management among nurses at St. Dominic Hospital, Akwata, Ghana. Health Sci J. 2017;10(6):467. https://doi.org/10.18203/2394-6040.ijcmph20180246

16. Vernejak Sh, Shah H. A study of work-related stress among nurses in a tertiary care hospital in Goa. Int J Community Med Pub Health. 2018;5(2):657–61. https://doi.org/10.18203/2394-6040.ijcmph20180246

17. Madadzadeh M, Barati H, Asour AA. The association between workload and job stress among nurses in Vasei hospital, Shazaveh city, Iran, in 2016. JOHE. 2018;7(2):83–9. https://doi.org/10.29252/joh.7.2.83

18. Kargozar F, Passos AR, Oliveira JM, Pereira IM, Costa TF. Absenteeism of nursing staff: decisions and actions of nurse managers. J Sch Nurs. 2015;49.

19. Jeng JS, Huang SF, Liang HW, Chen LC, Lin CK, Huang HF, et al. Workplace interpersonal conflicts among the health care workers: retrospective exploration from the institutional incident reporting system of a university-affiliated medical center. Plus One. 2017;12(2):e0171696. https://doi.org/10.11717/journal.pone.0171696

20. Al-Dweik G, Al-Daken LI, Abu-Snieh H, Ahmad MM. Work-related empowerment among nurses. Int J Product Qual Manag. 2016;19(2):168. https://doi.org/10.15406/ijpqm.2016.078885

21. Weldegebriel Z, Ejigu Y, Weldegebreal F, Woldie HF. Motivation of health workers and associated factors in public hospitals of West Amhara, Northwest Ethiopia. Dovepress. 2016;10:159–69. https://doi.org/10.2121/1.ppa.200932

22. Fute M, Mengesha ZB, Wagaki N, Tessema GA. High prevalence of workplace violence among nurses working at public health facilities in Southern Ethiopia. BMC Nurs. 2015;14:9. https://doi.org/10.1186/s12912-015-0062-1

23. Abdellah RF, Salama KM. Prevalence and risk factors of workplace violence against health care workers in the emergency department in Ismailia, Egypt. Pan Afr Med J. 2017;26:21. https://doi.org/10.1016/j.panj.2017.02.10837

24. Sultanian E, Tarek, M. “Doctors are calling on Parliament for a determent law to stop attacks on its members in hospitals[internet].” Egypt: El-watan News; [cited 2018 May 21]. Available from: https://www.elwatannews.com/news/details/3378691?t=push. Egyptian.

25. Simon J, Crookes P, Walsh K, Halcomb E. Measuring the outcomes of nursing practice: a Delphi study. J Clin Nurs. 2018;27(1-2):368–78. https://doi.org/10.1111/jcn.13971

26. Bjorkman A, Engstrom M, Olsson A, Wahlgberg A. Identified obstacles and prerequisites in tele nurses’ work environment—a modified Delphi study. BMC Health Serv Res. 2017;17:357. https://doi.org/10.1186/s12913-017-2296-y

27. Munro CL, Hope AA. Healthy work environment: resolutions for 2020. Am J Crit. 2020;29(1):1–4. https://doi.org/10.4037/ajcc2020040

28. Shah M. Impact of interpersonal conflict in health care setting on patient care; the role of nursing leadership style on resolving the conflict. NCOAJ. 2017;2(2):44–6. https://doi.org/10.15406/ncoaj.2017.02.00031

29. Drake K. The motivation to stay motivated. Nurs Manag. 2017;48(12):56. https://doi.org/10.1097/01.NUMA.0000526092.77464.16

30. Adjei K, Emmanuel O, Forster OM. The impact of motivation on the work performance of health workers [Korle Bu Teaching Hospital]: evidence from Ghana. Hosp Pract Res. 2016;1(2):47–52. https://doi.org/10.20286/hpr-010245

31. Boalo IM, Hancock P. Workplace violence against nurses: a cross-sectional descriptive study of Ghanaian nurses. SAGE Open. 2017:1–9. https://doi.org/10.1177/2158244017701187

32. Monanyi NB, Naimenyi CK. An investigation into factors causing high nurse turnover in Mission Hospitals in Kenya: a Case for Pcea Chogoria Hospital. IJARBS. 2015;5(3):55–86. https://doi.org/10.6007/IJARBS.S7-I3.1499