

## **Training Strategy to Enhance Nurses' Performance Regarding Risk Management at Port Said General Hospital**

**Dr. Sanaa Abdelazeem Ibrahim<sup>1</sup>, Assist. Prof. Dr . Rasha Ibrahim El-Sayed Aly<sup>2</sup>,  
El-Shaimaa El- Shahat Ghaith<sup>3</sup>.**

1 Professor of Nursing Administration, Faculty of Nursing, Port Said University,

2 Assistant Professor of Nursing Administration Department, Faculty of Nursing, Port Said University.

3 Master Degree in Nursing Administration, Faculty of Nursing, Port Said University,

---

### **ABSTRACT**

**Background:** Risk management plays a major role in shrinking uncertainties and enhancing rich opportunities for different areas of the health system. **Aim:** The study aimed to enhance nurses' performance regarding risk management through developing a risk management training strategy at Port Said General Hospital. **Design:** Quasi-experimental design. **Setting:** This study was carried out at a selective department in Port Said General Hospital. **Subject:** included all nurses working at the selected inpatient units in Port Said general Hospital at the study time with a total number of 53 nurses. **Tool:** two tools were used; first tool: a risk management knowledge questionnaire was used to assess nurses' knowledge second tool: an observational checklist was used to assess nurses' practice **Results:** Pre-training, nurse's knowledge related to risk management dimensions as a mean percentage was  $47.7 \pm 20.2$ , which improved post-training to be  $86.5 \pm 24.2$  During follow up, this percentage declined to be  $74.9 \pm 40.6$ . Pre-training, nurse's practice related to risk management dimensions, 32.1% of nurses' practice as a total was satisfactory, which improved post-training to be 83.0% of them had satisfactory practice. During follow-up, this percentage declined to be 75.4% with statistical differences were in pre, post, follows up. **Conclusion:** There was a statistical improvement related to risk management among nurses after the training strategy implementation. **Recommendation:** health authorities should develop and implement clear policies for all health workers in hospitals and for staff nurses particularly to reduce risks in the workplace.

**Keywords:** knowledge, nurses, risk, risk management

## **INTRODUCTION**

Risk is a combination of the probability or frequency of an event and its consequences, which are usually negative. The probability of an uncertain event occurring is often unknown, as are its consequences. In this case, it is more important to apply precautionary than preventive measures to protect against uncertainty (Capocchi, Orlandini, Pierotti, Luzzi & Minetti, 2019).

As Fusco, Dicuonzo, Dell'Atti and Amoo (2017) stated, "The objective is to guarantee a more efficient and effective management of the organizations and the healthcare systems in terms of better security and quality of treatments, as well as of rationalization of the company costs." In this new framework, risk management is becoming very important. The risk-identification, -assessment, and -management processes are part of companies' strategic development; they must be designed and planned at the highest level, and an integrated risk-management approach must evaluate, control, and monitor all risks and their dependences to which the company is exposed.

In the last decade, healthcare organizations have faced two contradictions: first, healthcare costs have increased due to population aging, the introduction of advanced technologies, and increased medical errors. On the other hand, healthcare organizations have become more complicated due to such factors as efficient customers, biomedical developments, the complexity of services, and an increasing number of healthcare users; therefore, demand for healthcare is significantly higher than the human capacity and resources available in healthcare departments. Corresponding to these limits, three interventional approaches have been developed at various levels of the health care organizations: (i) quality management, (ii) risk management, and (iii) patient safety (Ferdosi, Rezayatmand & Taleghani, 2020).

In particular, risk management is a process-oriented method providing a structured framework for identifying, assessing, and reducing risk at appropriate times for health care organizations (Faiella, Parand & Franklin, 2018). The risk management approach protects healthcare providers against unfavorable incidents. This way, Risk management plays a major role in shrinking uncertainties and enhancing rich opportunities for different areas of the health system. The development of risk management helps health care organizations and providers to reduce damage due to the probable occurrence of

defective processes through identifying the error, rooting, and strategy development (Jafari1, Pourtaleb & Khodayari-Zarnaq, 2018).

Risk management program is very important in order to enhance quality and decrease the complaints regarding medical and nursing errors. It is important to noted that account expenditure didn't take in account-related risk management practices, such as the introduction of guidelines and protocols, patient involvement, etc., so that reflected staff behavior (Simsekler, Ward & Clarkson, 2018). Indeed, such practices, if not properly managed, can give rise to medics' and paramedics' work overload burnout, which would inevitably increase the probability of errors. Indeed, improvements of clinical risk profile often allow hospitals to realize important savings on insurance costs. It can also boost institutions' image and increase their competitive advantage (Vahidnia, Tanriöver & Askerzade, 2017).

A general framework for risk management needs to be identified before implementing the risk process. This framework determines the strategy of the organization for identifying risk, risk assessment, and risk reduction. This strategy outlines how the risk management process should be implemented in the organization. It determines the resources that are needed, the key roles and responsibilities for that, and the ways risk needs to be identified. It shows what the decision-making process looks like while using those strategies (Levett, Fasone & Smith, 2017).

### **Significance of the study**

Hospital management is responsible for paying attention to risk management positions to achieve qualitative development in treatments and make a safe environment for staff and patients (Ghobadian, Zahiri, Torabipour & Faraji-Khiavi, 2017). Policies and programs for training risk management activities in the hospital should be seriously considered and followed. So, this study could be helpful for staff nurses to gain their knowledge, skills and promote their attitude regarding risk management through training strategy. A training strategy is an organized approach to creating a training program for staff members. An effective employee training program is a crucial step for the professional development of staff, ensuring they have the skills needed to provide successful business results. You can implement these strategies for current and future staff members

## **AIM OF STUDY**

The present study aims to enhance nurses' performance regarding risk management through developing a risk management training strategy at Port Said General Hospital.

### **Research Objectives:**

1. Assess nurses' knowledge regarding risk management through pre, post-training, and follow-up in Port Said General Hospital.
2. Observe nurses' practices regarding risk management through pre, post-training, and follow-up
3. Design a training strategy to enhance nurses' performance regarding risk management.
4. Implement training strategy implementation to enhance nurses' performance regarding risk management.
5. Evaluate the effect of training strategy on nurses' performance through pre, post, and follow-up related to risk management.

### **Hypothesis:**

The risk management training strategy will improve nurses' knowledge and practice regarding risk management.

## **SUBJECT AND METHOD:**

### **Research Design:**

A quasi-experimental design was used to conduct this study.

### **Study Setting:**

The study was carried out in the medical, surgical, orthopedic, and burn units at Port Said General Hospital in Port Said City, affiliated with the Ministry of Health. After joining the universal health insurance system hospital's name changed and became "AL Salam Hospital.

### **Study Subjects:**

The study subjects were included all staff nurses who accepted to participate in this study; who were working at above mentioned setting during the time of data collection with total number 53 nurses.

### Inclusion criteria

\*Nurses who accept to participate in the study

\*Nurses who have more than 6month of experience at their work setting

### **Tools of Data Collection:**

Two tools were used in the study for data collection.

**Tool (1):** Questionnaire sheet. It consisted of two parts: -

#### ***Part I: Personal and job data:***

This part included questions about nurses' personal and job data such as unit name, age, gender, level of education and years of experience, attendance of risk management training program.

#### ***Part II: Knowledge questionnaire sheet:***

A knowledge questionnaire sheet was developed by the researcher based on related literature (Abd El- Fatah, 2013; Abou Al- Hassan, 2011; Alewa, 2010; Gaafer, 2010; Gaber, 2009; Mostafa, 2009; Osman, 2003, & Rofael, 2003). To assess staff nurses' knowledge regarding risk management and it was used pre, post-implementation of the training strategy and follow-up. This tool consists of 140 items classified into four dimensions:

#### **First dimension:**

Was used to assess staff nurses' knowledge regarding environmental risk factors. It consists of "39" items classified into 3 categories as the following:

- **Administrative and physical structure risks:** Nine items.
- **Fire risks:** Seven items.
- **Infection risks:** 23 items.

#### **Second dimension**

Was used to assess nurses' knowledge regarding occupational hazard. It consists of "40" sub items classified into four categories as the following:

- **Biological hazard:** Ten items.
- **Chemical hazard:** Nine items.
- **Physical hazard:** Eight items.
- **Psychological hazard:** 13 items.

#### **Third dimension:**

Was used to assess nurses' knowledge regarding patients' related risk factors. It consists of "26" items classified into three categories as the following:

- **Medication error:** 12 items.
- **Patient's fall related risks:** Seven items.
- **Blood transfusion related risks:** Seven items.

#### **Fourth dimension**

Was used to assess nurses' knowledge regarding hospital risk management activities and incidence reporting. It consists of "35" items.

#### **Scoring system:**

Nurses' risk management knowledge items were scored 5, 4, 3, 2 and 1 for the responses "strongly agree", "agree", "sometimes", "disagree", and "strongly disagree", respectively. Nurses' response was measured on 5 –Point Likert Scale, which ranged from (5= strongly agree to 1= strongly disagree).

The items were scored respectively from 5 to 1. For each area, the scores of the items were summed up, and means and standard deviations were calculated and converted to mean percentages so that a higher score indicates a higher knowledge. The total score for nurses' knowledge was adopted from Abdallah, Shabaan, Ghadery and Shokier (2019), it was classified as good knowledge > 75%, of total knowledge score, fair knowledge 75%-60% of total knowledge score, and poor knowledge < 60% of total knowledge score.

#### **Tool II: Observational check list :**

This tool was used to assess the practice of study nurses in their work setting. An observational checklist was developed by the researcher for assessing the nurses' practice level. Each nurse was observed three different times using nurses' observational checklists. Participants' direct observation was done so that the nurses were observed during their practice. It was written in the English language to be collected by the investigator and it was used pre, post-implementation of the training strategy and follow-up. It was developed by the researcher based on related literature (Abd El- Fatah, 2013; Abou Al- Hassan, 2011; Alewa, 2010; Egyptian Ministry of Health, 2013; Gaafer, 2010; Gaber, 2009; Mostafa, 2009; Osman, 2003; & Rofael, 2003). It consists of "210" items categorized into four subscales which are:

### **1. Environmental risks**

Was used to assess environmental risk factors. It consists of "51" items classified into three categories as the following:

- **Administrative and physical structure risks:** 21 items.
- **Fire risks:** Seven items.
- **Infection risks:** 23 items

### **2- Nurses' safety measures to occupational hazards**

Was used to assess the actual nurses' practice related to safety standards, precautions. It consists of "37" items. These items were classified into three categories as follow:

- **Biological hazard:** 25 items.
- **Chemical hazard:** six items.
- **Physical hazard:** six items.

### **3- Safety measures to protect patients' exposure to risks**

This tool consists of "85 items". These items were grouped under three categories:

- **Medication preparation and administration:** 68 items
- **Measures to prevent patients fall,** ten items.
- **Blood transfusion process,** seven items.

### **4- Risk management activities and incident reporting.**

Used to assess the nurses' practice regarding risk management activities and incident reporting. It consists of "31" items .

An observation technique was utilized for data collection. They were checked on a dichotomous scale "Yes" or "No".

### **Scoring system:**

The items observed to be yes were scored **one** if the answer yes and **zero** if the answer no. For each area, the scores of the items were summed-up and converted into percent score and the total divided by the number of the items. These scores were converted into a percent score were computed. So, a higher score indicates better monitoring. The total score for performance was adopted from EL-Shafey, El-Dakhakhny, and Mohammed

(2019), it was classified as satisfactory practice  $\geq 60\%$ , of total practice score, unsatisfactory practice  $< 60\%$  of total practice score.

## **II. Operational Design:**

The operational design includes the preparatory phase validity, reliability, pilot study, and fieldwork.

**Preparatory phase:** During this phase, the researcher reviewed the literature related to the study subject using paper and electronic sources both locally and internationally. This helped in the selection and preparation of the data collection tool.

### **Validity:**

upon preparation of the preliminary forms of the tools. Face and content validity was checked by a board of five specialists in the field (Nursing Administration) from Mansoura, Cairo and port said faculties of nursing. They assessed the tool for clarity, relevance, comprehensiveness, appropriateness, and completeness of the content, understanding, and ease of implementation. According to their opinions, minor modifications were applied. The tools were then modified according to their recommendations and suggestions.

### **Reliability:**

The reliability test of the proposed tools was done to assure consistency, determine how strongly the attributes were related to each other and the composite score. The reliability test was used in this stage for tools for data collection using Cronbach's Alpha test. Cronbach's alphas were (0.876) and (0.958) for the risk management knowledge questionnaire, risk management observation checklist, respectively.

### **Pilot Study:**

A pilot study was carried out on 5 nurses who represent 10% of the total studied sample nursing working at inpatient units who were chosen randomly to check the feasibility, applicability, clarity of the tools, to estimate the exact time needed to fill it out, and to detect any possible problems concerning data collection tools that might face the researcher and interfere with data collection, and they excluded from the entire sample of research work. to assure the stability of the answers. Completion of staff nurses' questionnaire took 5-10 minutes.

It was conducted one week before embarking on the field of the working of the study and they were excluded from the entire sample of research work.

**Field Work:**

Collecting the data took a period started from the beginning of September 2018 to December 2019 covering one year and four months through three phases as the following:

1. The pre-intervention phase that took over 3 Months started from September 2018 to December 2018. The training strategy was developed based on the detected needs. As well, schedule, teaching sessions, media included, and the handout were prepared.
2. The intervention phase was carried out in the period starting from December 2018 to 15 April 2019. The training strategy was implemented for staff nurses at the studied hospital. Teaching methods were selected to suit teaching in five groups in the form of lectures, group discussions, demonstrations, and re-demonstrations. Teaching materials were prepared as lectures by laptop, group discussion, demonstration, colored posters and real application on patients, PowerPoint, a handbook of the designed training strategy contents illustrated by pictures by the researcher that covered theoretical and practical information. Daily sessions of about 2 hours for each were given. The training strategy was carried out for four days period for each group of staff nurses.

3 The post-intervention phase (Evaluation Phase). In this phase, the effect of the strategy was evaluated; it was carried out immediately after training strategy implementation and after 3 months of intervention by using the same tools which were used before the training strategy implementation. The time of the data collection for after and follow-up stages lasted for five months from mid-July 2019 to mid of December 2019

**Ethical Considerations:**

Before conducting the study, an official letter was taken from the Dean of the Faculty of Nursing in Port Said University to the Medical and Nursing Directors of the hospital. The research consent was obtained from the scientific research ethical committee in the faculty of nursing, Port Said University. Official permission through formal agreement from Medical and Nursing Directors of the hospital to carry out the study After explaining the aim of the study and taking the verbal consent from every staff nurse for participation. Some ethical issues were raised, henceforth; anonymity was assured and maintained, no coercion or pressure was applied, and no risk or burden was imposed on participants. Confidentiality of the data gathered was assured and it was only used for the study. Finally, they were all informed about their right to refuse participation or even withdrawal at any time.

**Statistical Design:**

Data were coded by the researcher and transformed into a specially designed format to be suitable for computer feeding and the data were analyzed using SPSS computer program version 25 (statistical package for social science). Data were presented utilizing descriptive statistics in the form of frequency, percentages for qualitative variables, means, and standard deviations, and means percentages for quantitative variables. Comparison of categorical variables was made using paired t-test, to compare two means in the same studied group pre and post-intervention and between two means post-intervention and during follow-up stage. p values less than 0.05 were considered statistically significant

**RESULTS:**

**Table (1):** Indicated that 37.7% of studied nurses were in the age group from 30 to less than 40 years The highest percentage of them (92.5%) with diploma of secondary technical nursing school and 35.8 had ten to less than twenty years of experience. In relation to attendance of training courses in risk management, it was noticed that 3.8% of nurses were attended training courses in risk management.

**Table (2):** Reflects nurses' knowledge regarding risk management dimensions through pre, post-training, and follow-up. Nurses' knowledge related to environmental risks; occupational hazards; patient-related risks and hospital risk management activities incident report pre-training stage was as mean percentage was 47.7. Whereas this percentage was increased after implementing the training to be mean percentage was 86.5. During follow-up, this percentage declined to be 74.9but it was still high more than the pre-training. There were statistically significant differences between studied nurses' knowledge were in pre, post, and follow-up.

**Table (3):** Shows nurses' practice regarding risk management dimensions through pre, post-training strategy implementation, and follow-up. It is evident that nurses' practice is related to; occupational hazards; patient-related risks and incident reports, in the pre-training phase it was found that 32.1% of the study sample had satisfactory practice scores. On the other hand, this percentage was increased after implementing the training to be 83.0%. During the follow-up phase, this percentage declined to be 75.4% but it was still high more than the pre-training phase.

**Table (4):** Displays correlation between studied nurses' knowledge and practice through pre, post-training strategy implementation, and follow-up. The table indicated that a statistically significant correlation among nurses' knowledge and practice related to risk management dimensions was found between the studied sample through the post ( $r=0.215$ ) and follow-up training strategy implementation ( $r=0.342$ ).

**Table (1):** Distribution of personal and job data of the studied nurses.

Personal and job data	Studied nurses n=53	
	Frequency	%
<b>Age in years</b>		
• 20-<30	17	32.1
• 30-<40	20	37.7
• 40-50	16	30.2
<b>Mean <math>\pm</math>SD</b>	34.29 $\pm$ 6.21	
<b>Gender</b>		
• Male	2	3.8
• Female	51	96.2
<b>Educational qualification</b>		
• Diploma of secondary technical nursing school	49	92.5
• Diploma of technical health institute	1	1.9
• Bachelor of nursing	3	5.6
<b>Working setting</b>		
• Burns department	9	17.0
• Medical department	19	35.9
• Surgical department	12	22.6
• Orthopedic department	13	24.5
<b>Years of experience in nursing</b>		
• 1-<10	16	30.2
• 10-<20	19	35.8
• 20-30	18	34.0
<b>Mean <math>\pm</math>SD</b>	12.56 $\pm$ 4.36	
<b>Attended training courses in risk management</b>		
• Yes	2	3.8
• No	51	96.2

**Table (2): Nurses' knowledge regarding risk management dimensions through the training strategy phases**

Nurses' knowledge regarding risk management dimensions through the training strategy phases	Pre-training (n = 53)	Immediate post-training (n = 53)	Follow up (n = 53)	Paired t test (1)	Paired t test (2)
	Mean %	Mean %	Mean %		
<b>1. Environment risks</b>					
1-1 Administrative and physical structure risks	39.7	83.1	62.6	-27.754*	-10.6*
1-2 Fire risks	38	82.6	73.6	-36.4*	-26.6*
1-3 Infection risks	32.8	73.9	55.2	-49.55*	-16.63*
<b>Total</b>	<b>34.33</b>	<b>75.46</b>	<b>58.04</b>	<b>-51.329*</b>	<b>-21.064*</b>
<b>2. Occupational hazards</b>					
2-1 Biological hazards	63	78	69.5	-10.61*	-3.77*
2-2 Chemical hazards	61.3	97.1	88.6	-14.05*	-9.30*
2-3 Physical hazards	44	86.5	73.25	-39.43*	-14.37*
2-4 Psychological hazards	52.9	97.5	95.8	-63.02*	-44.11*
<b>Total</b>	<b>46.6</b>	<b>94</b>	<b>86.5</b>	<b>-75.662*</b>	<b>-42.674*</b>
<b>3. Patients related risks</b>					
3-1 Medication errors	45	88.3	78.1	-69.94*	-17.671*
3-2 Patient's fall-related risks	38.5	90.57	84.5	-45.65*	-20.68*
3-3 Blood transfusion-related risks	45.1	90	78	-16.67*	-9.077*
<b>Total</b>	<b>43.55</b>	<b>89.21</b>	<b>79.23</b>	<b>-49.949*</b>	<b>-22.642*</b>
<b>4. Hospital risk management activities and incident report</b>	44.45	88.74	75.88	-14.166*	-4.708*
<b>Nurses' knowledge regarding risk management</b>	<b>47.73</b>	<b>86.58</b>	<b>74.99</b>	<b>-79.575*</b>	<b>-34.474*</b>

Paired t-test (1) difference of mean score between pre-intervention & post-intervention

Paired t-test (2) difference of mean score between pre-intervention & follow-up intervention

\* Statistically significant difference.

**Table (3): Nurses' practice regarding risk management through the training strategy phases**

Nurse's practice regarding risk management through training strategy phases	Pre-training				Immediate training				Follow up				Chi-square (1)	Chi-square (2)
	Unsatisfactory <60%		Satisfactory ≥60%		Unsatisfactory <60%		Satisfactory ≥60%		Unsatisfactory <60%		Satisfactory ≥60%			
	No	%	No	%	No	%	No	%	No	%	No	%		
1. Nurses' safety measures to an occupational hazard	34	64.2	19	35.8	9	17.0	44	83.0	12	22.6	41	77.4	24.45	18.58*
<b>I. Safety measures to protect patients' exposure to risks</b>														
2.1 Medication preparation and administration	39	73.6	14	26.4	7	13.2	46	86.8	11	20.8	42	79.2	39.32	29.68*
2.2 Measure to prevent patients fall	35	66.0	18	34.0	11	20.7	42	79.3	16	30.2	37	69.2	22.12	13.64*
2.3 Blood transfusion Process	35	66.0	18	34.0	10	18.8	43	81.2	14	26.4	39	73.6	24.13	16.73*
Total	31	58.5	22	41.5	9	17.0	44	83.0	10	18.9	43	81.1	19.43	21.74*
2. Incident report	39	73.6	14	26.4	10	18.8	43	81.2	15	28.3	38	71.7	31.91	21.74*
Total practice	36	67.9	17	32.1	9	17.0	44	83.0	13	24.6	40	75.4	23.89	20.07*

chi-square test (1) difference of mean score between pre-intervention & post-intervention. chi-square test (2) difference of mean score between pre-intervention & follow-up intervention. \* statistically significant difference.

**Table (4): correlation between studied nurses' knowledge and practice through the training phases.**

correlation between studied nurses' knowledge and practice through the training phases.		Practice					
		pre-training		post- training		follow up	
		R	P-value	R	P-value	R	P-value
Knowledge	Pre-training	0.153	>0.05				
	post- training			0.215	<0.05*		
	follow up					0.342	<0.001**

\*significant at  $P \leq 0.05$ 

R: Pearson Correlation coefficient

**DISCUSSION:**

Today's health care system is growing more complex and challenging. Increased demands for services from better-educated personnel to a culturally diverse population, higher patient acuity, increased cost-saving measures from agencies, and increased use of technology and new medications are important factors contributing to this complexity. Nursing staff needs to be knowledgeable, and skillful to deliver safe and quality care in this complex health care system. While trying to ensure safe and high-quality patient care, nursing staff are exposed to several work-related risks that can cause diseases and accidents (Abdalla, Shabaan, Ghadery & Shokier, 2019).

In this context, the present study result showed improvement in nurses' knowledge and practice regarding risk management immediately after the training strategy implementation and after three months of training strategy relative to pre-training implementation. This finding is in congruence with Mohamed, Elmolla and Abdeen (2016) who proved that the implementation of the program for nurses at Mansoura New General Hospital had a positive effect on nurses' level of knowledge immediately and at three months post-program. On the same line Lalithabai, Ammar , Alghamdi and Aboshaiqah (2021) concluded that an effective orientation program should enhance the knowledge and competence of studied nurses and prepare them holistically to demonstrate their competence. Moreover, Abdallah, et al. (2019) conducted a training program for nursing staff at Tanta Emergency Hospital and asserted the effectiveness of the program in increasing their knowledge and recommended regular training programs, workshops, and seminars for nursing staff to refresh their knowledge, related to safety

measures. In the same regard, Pertiwi and Hariyati (2019) found that orientation programs have a positive effect on nurse competence.

Moreover, the findings showed that there was a slight decrease in nurses' knowledge and practice about risk management at three months post-training strategy implementation compared to immediately post-training strategy. This might be because the studied nurses did not use the handouts, they received during training implementation due to lack of time to read it because of the heavy work in their units and shortage of the staff, adding to that they might have forgotten some of the knowledge they gained during training implementation. These interpretations were supported by Yang et al. (2012) who stated that the knowledge and skills of health care providers in National Taiwan University Hospital decline over time and emphasize the need for greater refreshing training to maximize maintenance of knowledge. In the same sense, Metwally, Abdel-Aziez, Ali, and Mohammed (2016) studied the Effect on Evidence-Based Practice Program on Nurses' Knowledge and Practice at Al-Ahrar General Hospital and remarked a slight decline in nurses' mean score of knowledge after three months after program implementation compared to immediately post-program.

The current study revealed a statistically significant correlation between knowledge and practice of nurses' post-training strategy implementation. From the researchers' point of view, planned and implemented according to their pre-assessed needs through all training strategy phases. Furthermore, simplification of well-presented information by suitable educational aids increased their interest and desire to acquire knowledge and practice. so, training had a positive effect on the improvement of nurses' knowledge, the knowledge they gained during the raining strategy helped them to improve their practice well. Besides, the availability of using combined methods of teaching helped nurses to reach an adequate level of knowledge and practice. This finding is parallel to this of ElAshmawy (2017) in a study in Tanta University Hospitals concluded that there was a significant positive correlation between knowledge and performance among Nurses at Student University Hospital about safety strategies.

## CONCLUSION

### **Based on study findings, it can be concluded that:**

In the light of the main study findings, it was concluded that after training strategy implementation; there was a statistically significant improvement in nurses' knowledge regarding risk management. Finally, there was a statistically significant improvement related to nurses' performance after training strategy implementation.

## RECOMMENDATIONS

### **The finding of the present study suggested the following recommendations:**

- The health authorities should develop and implement clear policies for all health workers in hospitals and for staff nurses particularly to reduce risks in the workplace.
- Further research should be done in the area of risk management among nurses to assesses the relationship between risk management and applied quality standard practice

## REFERENCE

Abd El-Fatah, F. (2013). *Nurses' occupational hazards at general hospitals in Port Said City*, unpublished Master thesis, Faculty of Nursing, Port Said University.

Abdallah, S., Shabaan, F., Ghadery, S., & Shokier, M. (2019). Effect of management program on nursing staff leading role and compliance to follow safety measures at intensive care units. *Tanta Scientific Nursing Journal*, 17 (2), 8-32.

Abou Al- Hassan, N. (2011). *Designing and validating tool to assess environmental risk factors affecting hospitalized patients*, unpublished Doctorate degree in nursing sciences, Faculty of Nursing, Ain Shams University.

Alewa, A. (2010). *Intensive care units risks that endanger patient safety at Manial University Hospital: Suggestion a plan for patient safety management safety*, unpublished Doctorate degree in nursing sciences, Faculty of Nursing, Cairo University.

Capocchi, A., Orlandini, P., Pierotti, M., Luzzi, L. & Minetti, L. (2019). Risk

management in the healthcare sector and the important role of education and training Activities, the case of regione lombardia. *International Journal of Business and Management, 14*(1), 180-190..

Egyptian Ministry of Health, (2013). Egyptian healthcare accreditation program standers for hospitals. Cairo. *Egyptian Ministry of Health, 2nd edition, 52-78.*

El Ashmawy, E. (2017). *Occupational safety strategies for controlling and management*

*of needle stick injuries among nurses at student university hospital*, unpublished Doctoral thesis, Faculty of Nursing, Tanta University, 3-33.

EL-Shafey, S., El-Dakhakhny, A., & Mohammed, B. (2019). Effect of an educational training program for nurses about infection control precautions in their practice in the pediatric critical care. *Original article, Journal Management System, 9* (1), 20-30.

Ferdosi, M., Rezayatmand, R., & Taleghani, Y. (2020). Risk management in executive levels of healthcare organizations: Insights from a scoping review (2018). *Risk Management and Healthcare Policy, 2020* (13), 215–243

Fusco, A., Dicuonzo, G., Dell'Atti, V., & Amoo, N. (2017). The clinical risk management: A case study. *Management Control. 2017* (3), 32-52.

Gaafer, F. (2010). *Nurses' attitude and behavior toward incident report*, unpublished Master thesis, Faculty of Nursing, Alexandria University.

Gaber, M. (2009): *Development of risk management standards for Zagazig University hospitals*, unpublished Doctorate degree in nursing sciences, Faculty of Nursing, Cairo University.

Ghobadian, S., Zahiri, M., Torabipour, A., & Faraji-Khiavi, F. (2017). Applying the analyses of potential failure modes and their effects in evaluating clinical risk in operating room. *INDO American Journal of pharmaceutical sciences*, 4(10), 3757- 3764.

Jafari1, M., Pourtaleb, A., & Khodayari-Zarnaq, R. (2018). The impact of social capital on clinical risk management in nursing: A Survey in Iranian public educational hospitals. *Research Article, Nursing Open*, 5 (1), 285–291.

Lalithabai, D., Ammar, W., Alghamdi, K., & Aboshaiqah, A. (2021). Using action research to evaluate a nursing orientation program in a multicultural acute health care setting. *Int J Nurs Sci*. 8(2), 181–189.

Levett JM, Fasone JM, Smith AL, et al. (2017). Enterprise risk management in healthcare. Surgical patient care. *Springer*, 67–86.

Metwally, F., AbdelAzizz, SH., Ali S., & Mohammed, W. (2017): Effect on evidence-

based practice program on nurse's knowledge and practice, *Zagazig Nurs J*, 12(1), 99–112.

Mohamed, Z., Elmolla, M., & Abdeen, M. (2016). Effect of orientation program on

competency of newly graduated nurses at Mansoura New General Hospital, *Zagazig Nursing Journal*, 12(1), 225-238

Mostafa, G. (2009). Enhancing nurses' knowledge and awareness about risk management: System design. *Eastern Mediterranean Health Journal*, 15(5), 1136.

Osman, H. (2003). *Assessment of doctors and nurses awareness of environmental risks in intensive care unit*, unpublished Master thesis, Faculty of Nursing, Cairo University.

Pertiwi, R., & Hariyati, T. (2019). Effective orientation programs for new graduate nurses: A systematic review. *Enfermería Clínica*, 29(52), 612-618

Rofael, N. (2003). *Nursing risk management system at Ain Shams University specialized hospital*, unpublished Doctorate degree in nursing sciences, Faculty of Nursing, Ain Shams University.

Simsekler, M., Ward, J., & Clarkson, P. (2018). Evaluation of system mapping approaches

in identifying patient safety risks. *Int J Qual Health Care*, 30 (3), 227–233.

Vahidnia, S., Tanrıöver, Ö., & Askerzade, I. (2017). An early phase software project

risk assessment support method for emergent software organizations. *Int J Advan Comp Sci Appl*, 8(5), 105–118.

Yang, C., Yen, Z., McGowan, J., Chen, H., Chiang, W., & Mancini M, (2012). A systematic review of retention of adult advanced life support knowledge and skills in healthcare providers. *Resuscitation*, 83(9), 1055–1060.

## إستراتيجية تدريب لتحسين أداء الممرضين تجاه إدارة المخاطر

في مستشفى بورسعيد العام

الشيلاء الشحات غيث، رشا إبراهيم العناني، سناء إبراهيم عبد العظيم

### الخلاصة

تواجه منظومات الرعاية الصحية العديد من المخاطر التي تسبب خلق مشاكل تؤثر على سلامة المرضى ومقدمي الخدمة التمريضية. ويمكن تعريف المخاطر بأنها حدث غير مؤكد أو مجموعه من الظروف وقوعها يؤثر على تحقيق الأهداف السياسية والاستراتيجية والتنفيذية للمؤسسة. **الهدف:** تهدف الدراسة إلى تقييم أداء الممرضات فيما يتعلق بإدارة المخاطر في مستشفى بورسعيد العام. **عينة ومنهجية البحث:** تصميم البحث: وصفي. أجريت الدراسة في وحدات الباطنة والجراحة والعظام والحروق بمستشفى بورسعيد العام. عينة الدراسة: قد تضمنت جميع الممرضين العاملين بمرافق البحث اثناء فترة الدراسة وهم 53 ممرض. الأدوات: تم استخدام استمارة استبيان لتقييم مدي وعي وأداء الممرضين عن إدارة المخاطر. النتيجة: وكشفت الدراسة أن اعمار الممرضين تراوحت بين 20 إلى 50 سنة، 92% منهم حاصلون على دبلوم التمريض، وكانت معرفة الممرضات المتعلقة بأبعاد إدارة المخاطر 47.7% بمتوسط و338.9 ± 20.2، 32.1% فقط من عينة الدراسة كانت لديهم درجات أداء مرضية. الاستنتاج: غالبية أفراد عينة الدراسة لديهم معرفة ضعيفة وأداء غير مرض فيما يتعلق بإدارة المخاطر. توصية: هناك احتياجات واضحة لإجراء برامج تعليمية وتدريبية لتحسين مهارات معرفة الممرضين فيما يتعلق بإدارة المخاطر.

الكلمات المرشدة: المخاطر، إدارة المخاطر